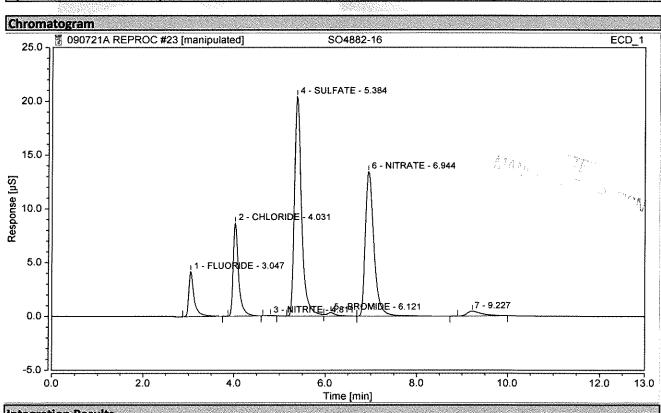
Chromatogram and Results						
Injection Details						
Injection Name:	SO4882-16	Run Time (min): 12.99				
Vial Number:	23 Ave. 1	Injection Volume: 200.00				
Injection Type:	Unknown	Channel: ECD_1				
Calibration Level:		Wavelength: n.a .				
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth: n.a.				
Processing Method:	KAT01 2100	Dilution Factor: 10.0				
Injection Date/Time:	07/Sep/21 22:35	Sample Weight: 1.0				

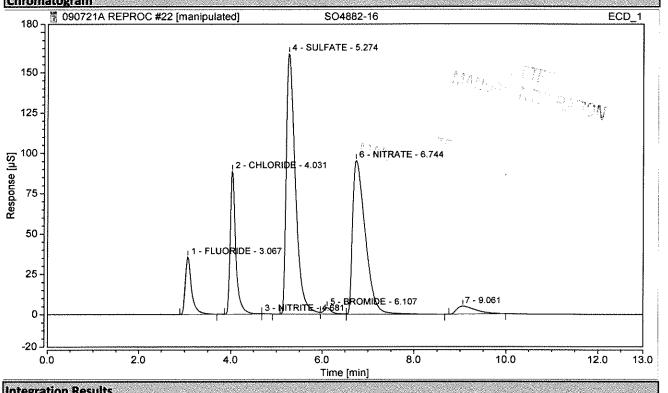


No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1.38	FLUORIDE	3.047	0.577	4.190	6.69	8.81	12.2186	n.a.
2	CHLORIDE	4.031	1.200	8.665	13.92	18.23	41.9750	n.a.
3	NITRITE	4.811	0.005	0.025	0.05	0.05	0.0735	n.a.
4 🛞	SULFATE	5.384	3.663	20.436	42.51	42.99	171.6054	n.a.
5 🕬	BROMIDE	6.121	0.076	0.336	0.88	0.71	4.8242	n.a.
6	NITRATE	6.944	2.924	13.445	33.94	28.28	39.1592	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			8.444	47,097	98.01	99.07		



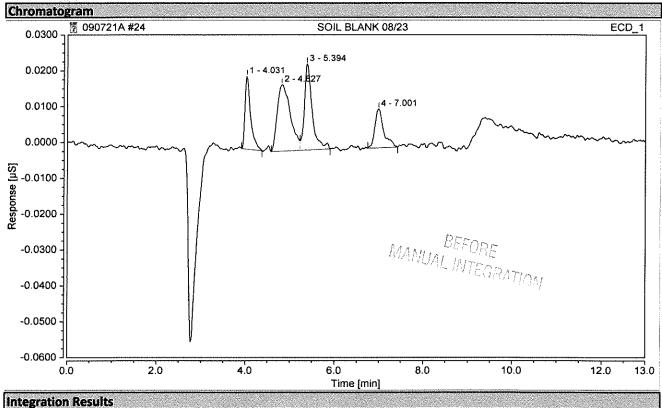
		Chromatogram and	Results	nie Mits de Brancon, sie der Schleren v Werden ist was der Schleren aus der Grin
Injection Details				
Injection Name:	SO4882-16		Run Time (min):	12.98
Vial Number:	22	ala fa	Injection Volume:	200.00
Injection Type:	Unknown		Channel:	ECD_1
Calibration Level:		•	Wavelength:	n.a.
Instrument Method:	ASDV30mMisocra	atic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100		Dilution Factor:	1.0
Injection Date/Time:	07/Sep/21 22:17		Sample Weight:	1.0

Chromatogram



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1	FLUORIDE	3.067	5.612	35.640	6.30	9.13	11.8905	n.a.
2	CHLORIDE	4.031	12.594	88.730	14.14	22.72	43.2151	n.a.
3	NITRITE	4.681	0.026	0.187	0.03	0.05	0.0417	n.a.
4	SULFATE	5.274	37.236	161.612	41.81	41.38	174.4508	n.a.
5	BROMIDE	6.107	0.820	4.111	0.92	1.05	5.9103	n.a.
6	NITRATE	6.744	30.453	95.366	34.19	24.42	40.5090	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			86.739	385.646	97.39	98.75		

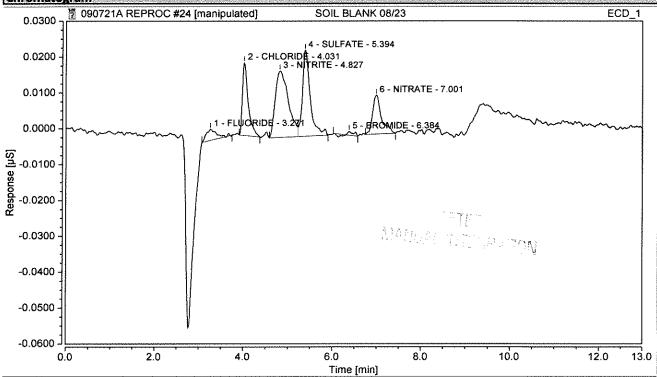
	Chromatogram and Res	sults	
Injection Details			
Injection Name:	SOIL BLANK 08/23	Run Time (min):	12.98
Vial Number:	24	Injection Volume:	200.00
Injection Type:	Unknown	Channel:	ECD_1
Calibration Level:		Wavelength:	n.a.
Instrument Method:	ASDV30mMisocratic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100	Dilution Factor:	1.0
Injection Date/Time:	07/Sep/21 22:54	Sample Weight:	1.0
		· · · · · · · · · · · · · · · · · · ·	



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	uS*min	μS	%	%	mg/L	%
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	п.а.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a. 🕓	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a,	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n,a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.000	0.000	0.00	0.00		

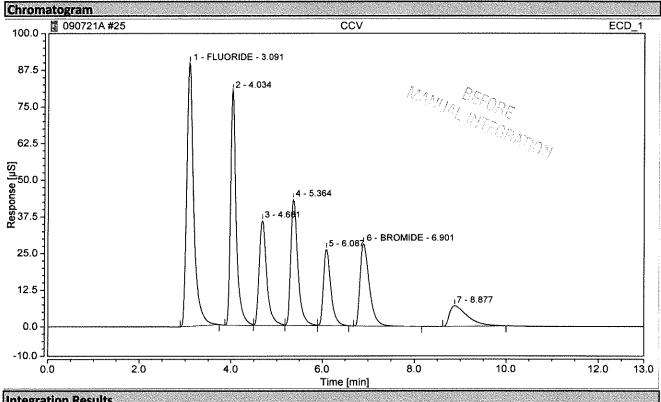
Chromatogram and Results						
Injection Details						
Injection Name:	SOIL BLANK 08/23	Run Time (min):	12.98			
Vial Number:	24	Injection Volume:	200.00			
Injection Type:	Unknown	Channel:	ECD_1			
Calibration Level:		Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100	Dilution Factor:	1.0			
Injection Date/Time:	07/Sep/21 22:54	Sample Weight:	1.0			
		•••				





Integ	ration Results							
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.271	0.001	0.003	4.62	4.05	0.0017	n.a.
2	CHLORIDE	4.031	0.003	0.020	17.26	26.14	0.1004	n.a.
3	NITRITE	4.827	0.006	0.019	35.73	23.78	0.0103	n.a.
4	SULFATE	5.394	0.005	0.024	27.58	30.78	0.0229	n.a.
5	BROMIDE	6.384	0.000	0.001	0.48	1.36	0.0015	n.a.
6	NITRATE	7.001	0.003	0.011	14.33	13.89	0.0321	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.018	0.078	100.00	100.00		

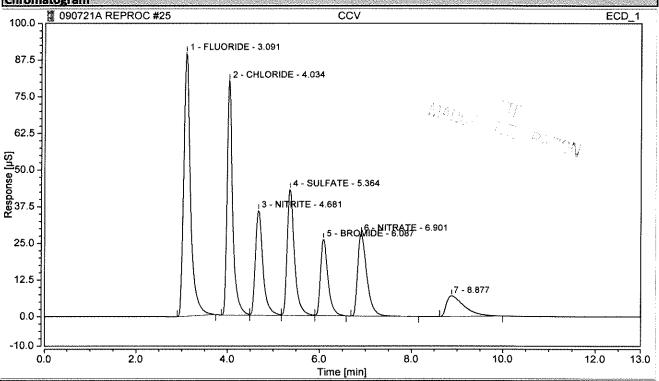
Chromatogram and Results						
Injection Details						
Injection Name:	CCV	Run Time (min):	12.98			
Vial Number:	25	Injection Volume:	200.00			
Injection Type:	Check Standard	Channel:	ECD_1			
Calibration Level:	06	Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100	Dilution Factor:	1.0			
Injection Date/Time:	07/Sep/21 23:13	Sample Weight:	1.0			



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1 3333	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a. 🔇	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a. 🛛	SULFATE	n.a.	n.a.	n.a. 🔗	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.901	6.554	28,136	11.65	9.08	40.4488	102.2440
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	:		22.258	117.930	39.55	38.06		

	Chromatogram and Re	esults	
Injection Details			
Injection Name:	CCV	Run Time (min):	12.98
Vial Number:	25	Injection Volume:	200.00
Injection Type:	Check Standard	Channel:	ECD_1
Calibration Level:	06	Wavelength:	n.a.
Instrument Method:	ASDV30mMisocratic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100	Dilution Factor:	1.0
Injection Date/Time:	07/Sep/21 23:13	Sample Weight:	1.0
		Ч.	

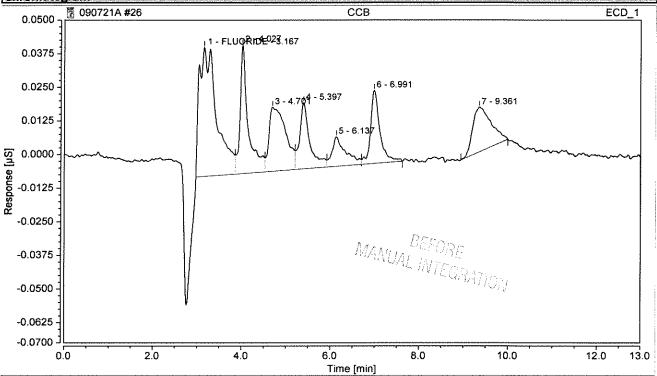
Chromatogram



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
1.1		min	µS*min	μS	%	%	mg/L	%
1	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
2	CHLORIDE	4.034	11.221	79.977	19.94	25.81	38.5128	285.1276
3	NITRITE	4.681	6.861	35.784	12.19	11.55	11.1773	179.4329
4	SULFATE	5.364	7.870	43.079	13.99	13.90	36.8727	84.3634
5	BROMIDE	6.087	4.891	26.050	8.69	8.41	37.4499	87.2495
6	NITRATE	6.901	6.554	28.136	11.65	9.08	8.7404	118.5104
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			53,100	302.820	94.36	97.73		

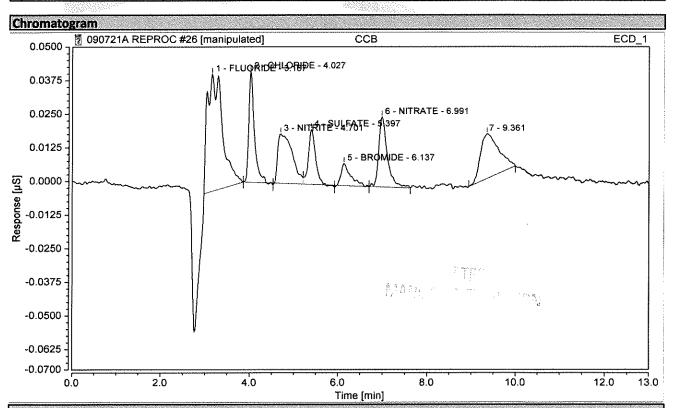
Chromatogram and Results							
Injection Details					-		
Injection Name:	ССВ		Run Time (min):	12.99			
Vial Number:	26		Injection Volume:	200.00			
Injection Type:	Unknown		Channel:	ECD_1			
Calibration Level:			Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocrati	ic TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100		Dilution Factor:	1.0			
Injection Date/Time:	07/Sep/21 23:32		Sample Weight:	1.0			

Chromatogram



No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
130000	FLUORIDE	3.167	0.022	0.048	32.24	24.10	0.0464	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a. 🔇	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			0.022	0.048	32.24	24.10		

	Chromatogram and Results							
Injection Details								
Injection Name:	ССВ	Run Time (min):	12.99					
Vial Number:	26	Injection Volume:	200.00					
Injection Type:	Unknown	Channel:	ECD_1					
Calibration Level:		Wavelength:	n.a.					
Instrument Method:	ASDV30mMisocratic TEST	Bandwidth:	n.a.					
Processing Method:	KAT01 2100	Dilution Factor:	1.0					
Injection Date/Time:	07/Sep/21 23:32	Sample Weight:	1.0					

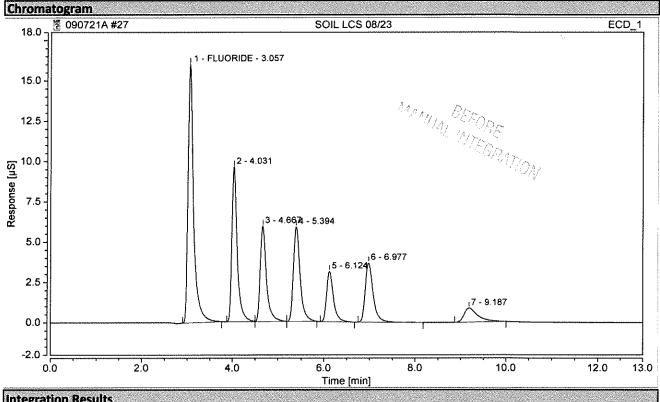


Integ	ration Results							
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.017	0.044	34.34	24.96	0.0363	n.a.
2	CHLORIDE	4.027	0.006	0.041	11.94	23.64	0.1103	n.a.
3	NITRITE	4.701	0.007	0.018	14.06	10.54	0.0114	n.a.
4	SULFATE	5.397	0.004	0.020	7.67	11.71	0.0179	n.a.
5	BROMIDE	6.137	0.002	0.008	4.12	4.72	0.0118	n.a.
6	NITRATE	6.991	0.006	0.026	11.84	14.90	0.0365	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			0.042	0.158	83,97	90.46		

Default(1)/Integration

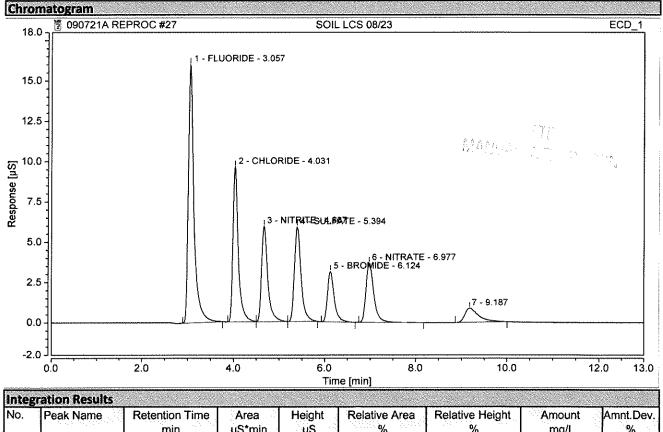
Chromeleon (c) Dionex Version 7.1.0.898

Chromatogram and Results						
Injection Details						
Injection Name:	SOIL LCS 08/23	Run Time (min):	12.99			
Vial Number:	27	Injection Volume:	200.00			
Injection Type:	Unknown	Channel:	ECD_1			
Calibration Level:		Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100	Dilution Factor:	1.0			
Injection Date/Time:	07/Sep/21 23:51	Sample Weight:	1.0			



No.	Peak Name	Retention Time min	Area uS*min	Height uS	Relative Area %	Relative Height %	Amount ma/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			2.293	16.039	32.15	35.55		

Chromatogram and Results							
Injection Details							
Injection Name:	SOIL LCS 08/23	Run Time (min):	12.99				
Vial Number:	27	Injection Volume:	200.00				
Injection Type:	Unknown	Channel:	ECD_1				
Calibration Level:		Wavelength:	n.a.				
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.				
Processing Method:	KAT01 2100	Dilution Factor:	1.0				
Injection Date/Time:	07/Sep/21 23:51	Sample Weight:	1.0				

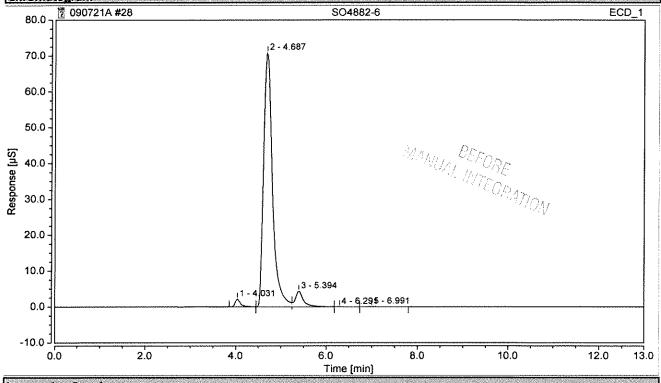


No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
4 3033	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
2	CHLORIDE	4.031	1.313	9.617	18.41	21.31	4.5860	n.a.
3	NITRITE	4.667	0.944	5.927	13.23	13.14	1.5371	n.a.
4	SULFATE	5.394	0.984	5.861	13.79	12.99	4.6081	n,a.
5	BROMIDE	6.124	0.545	3.124	7.64	6.92	4.4907	n.a.
6	NITRATE	6.977	0.743	3.677	10.41	8.15	1.0158	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	•		6.821	44.245	95.63	98.06		

Default(1)/Integration

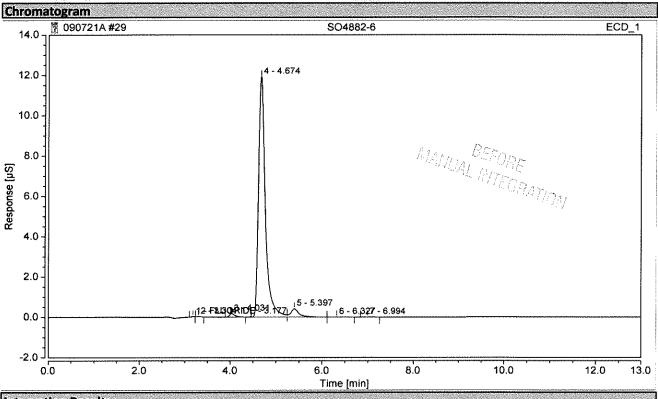
Chromatogram and Results							
Injection Details							
Injection Name:	SO4882-6	Run Time (min):	12.99				
Vial Number:	28	Injection Volume:	200.00				
Injection Type:	Unknown	Channel:	ECD_1				
Calibration Level:		Wavelength:	n.a.				
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.				
Processing Method:	KAT01 2100	Dilution Factor:	1.0				
Injection Date/Time:	08/Sep/21 00:09	Sample Weight:	1.0				
.							

Chromatogram



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a. 🛇	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	🧐 n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			0.000	0.000	0.00	0.00		

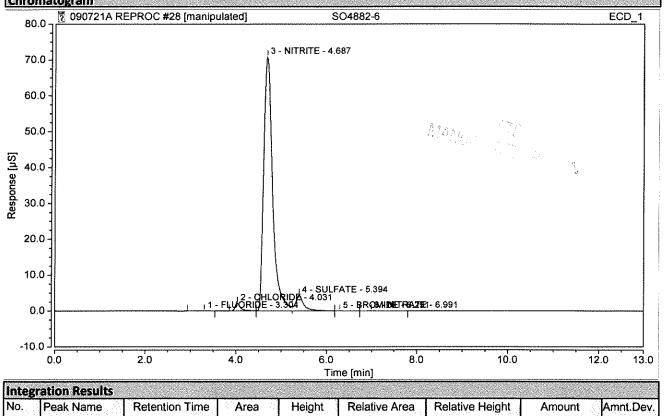
	Chromatogram and R	esults	
Injection Details			
Injection Name:	SO4882-6	Run Time (min):	12.99
Vial Number:	29	Injection Volume:	200.00
Injection Type:	Unknown	Channel:	ECD_1
Calibration Level:		Wavelength:	n.a.
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100	Dilution Factor:	10.0
Injection Date/Time:	08/Sep/21 00:28	Sample Weight:	1.0



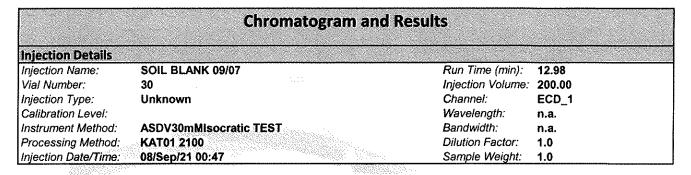
No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1 883	FLUORIDE	3.177	0.001	0.013	0.05	0.10	0.0227	n.a.
<u>n.a.</u> ്	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	п.а.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			0.001	0.013	0.05	0.10		

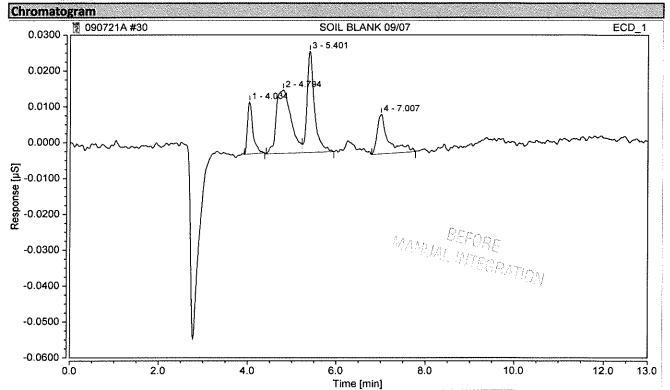
Chromatogram and Results							
Injection Details							
Injection Name:	SO4882-6		Run Time (min):	12.99			
Vial Number:	28	eta de la	Injection Volume:	200.00			
Injection Type:	Unknown		Channel:	ECD_1			
Calibration Level:			Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocratic	TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100		Dilution Factor:	1.0			
Injection Date/Time:	08/Sep/21 00:09		Sample Weight:	1.0			





No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.304	0.016	0.049	0.09	0.06	0.0337	n.a.
2	CHLORIDE	4.031	0.296	2.175	1.68	2.80	1.1019	n.a.
3	NITRITE	4.687	16.276	70.892	92.79	91.39	26.5162	n.a.
4	SULFATE	5.394	0.929	4.366	5.30	5.63	4.3535	n.a.
5	BROMIDE	6.291	0.011	0.033	0.06	0.04	0.0479	n.a.
6	NITRATE	6.991	0.014	0.059	0.08	0.08	0.0475	n.a.
n.a. 🔇	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			17.542	77.574	100,00	100.00		



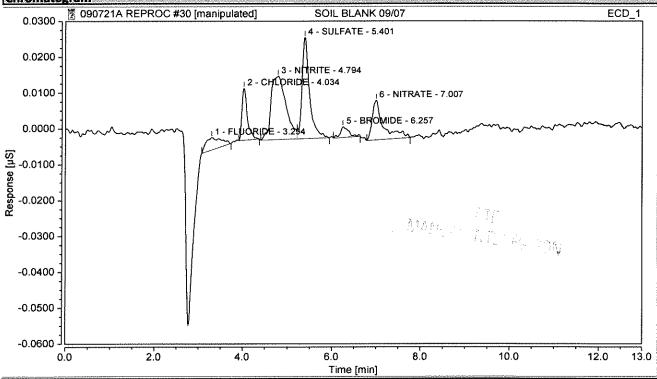


Inter	gration Results							
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	ก.ล.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			0.000	0.000	0.00	0.00		

50 S.

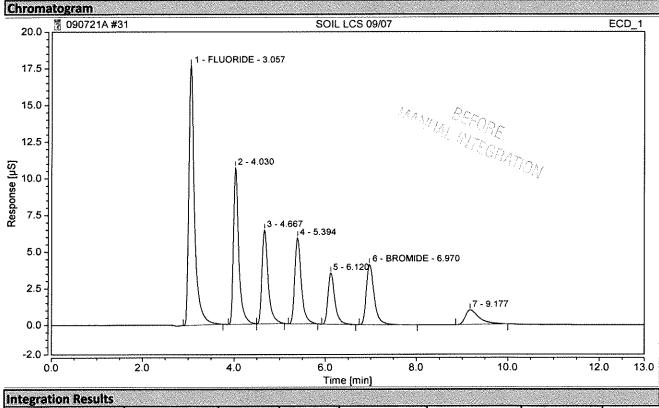
Chromatogram and Results						
Injection Details						
Injection Name:	SOIL BLANK 09/07	Run Time (min):	12.98			
Vial Number:	30	Injection Volume:	200.00			
Injection Type:	Unknown	Channel:	ECD_1			
Calibration Level:		Wavelength:	n.a.			
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.			
Processing Method:	KAT01 2100	Dilution Factor:	1.0			
Injection Date/Time:	08/Sep/21 00:47	Sample Weight:	1.0			





Integ	ration Results							
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.294	0.001	0.003	6.84	4.48	0.0029	n.a.
2	CHLORIDE	4.034	0.002	0.015	10.46	18.62	0.0970	n,a.
3.88	NITRITE	4.794	0.007	0.018	35.12	22.65	0.0113	n.a.
4	SULFATE	5.401	0.005	0.028	27.66	36.15	0.0256	n.a.
5	BROMIDE	6.257	0.001	0.003	3.41	3.93	0.0044	n.a.
6	NITRATE	7.007	0.003	0.011	16.52	14.17	0.0330	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	л.а.	n.a.
Total:			0.020	0.078	100.00	100.00		

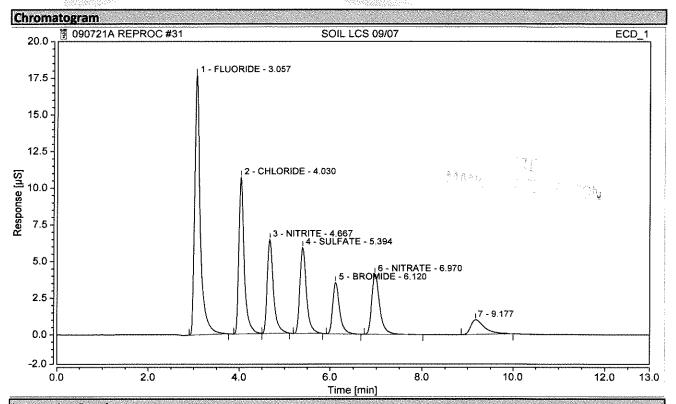
	Chromatogram and Re	34113	
Injection Details			
Injection Name:	SOIL LCS 09/07	Run Time (min):	12.98
Vial Number:	31	Injection Volume:	200.00
Injection Type:	Unknown	Channel:	ECD_1
Calibration Level:		Wavelength:	n.a.
Instrument Method:	ASDV30mMisocratic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100	Dilution Factor:	1.0
Injection Date/Time:	08/Sep/21 01:06	Sample Weight:	1.0



No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.970	0.832	4.108	10.66	8.33	5.9053	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n,a.	n.a.	n.a.	n.a.
Total:			3.382	21.822	43,33	44.27		



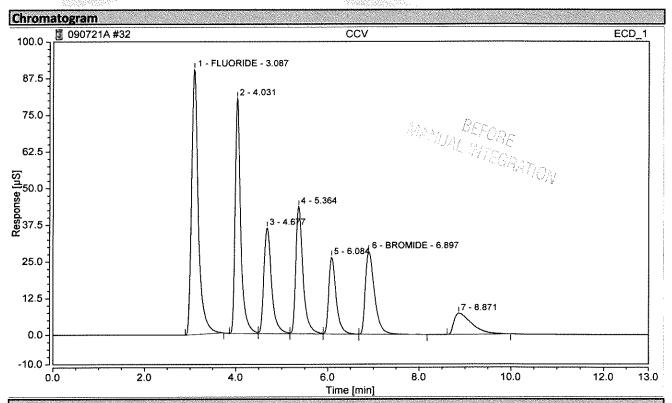
Chromatogram and Results							
Injection Details							
Injection Name:	SOIL LCS 09/07	Run Time (min):	12.98				
Vial Number:	31	Injection Volume:	200.00				
Injection Type:	Unknown	Channel:	ECD_1				
Calibration Level:		Wavelength:	n.a.				
Instrument Method:	ASDV30mMisocratic TEST	Bandwidth:	n.a.				
Processing Method:	KAT01 2100	Dilution Factor:	1.0				
Injection Date/Time:	08/Sep/21 01:06	Sample Weight:	1.0				



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1 3000	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
238	CHLORIDE	4.030	1.464	10.691	18.76	21.69	5.1047	n.a.
3	NITRITE	4.667	1.008	6.401	12.92	12.98	1.6428	n.a.
4	SULFATE	5.394	0.983	5.875	12.60	11.92	4.6071	n.a.
5.88	BROMIDE	6.120	0.615	3.508	7.87	7.12	5.0437	n.a.
6 388	NITRATE	6.970	0.832	4,108	10.66	8.33	1.1349	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			7.453	48.297	95.48	97.97		

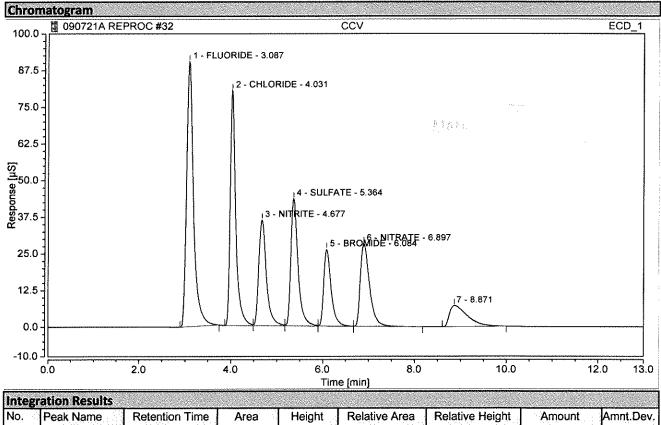
Default(1)/Integration

Chromatogram and Results							
CCV	Run Time (min):	12.99					
32	Injection Volume:	200.00					
Check Standard	Channel:	ECD_1					
06	Wavelength:	n.a.					
ASDV30mMIsocratic TEST	Bandwidth:	n.a.					
KAT01 2100	Dilution Factor:	1.0					
08/Sep/21 01:25	Sample Weight:	1.0					
	CCV 32 Check Standard 06 ASDV30mMIsocratic TEST KAT01 2100	CCVRun Time (min):32Injection Volume:Check StandardChannel:06Wavelength:ASDV30mMIsocratic TESTBandwidth:KAT01 2100Dilution Factor:					

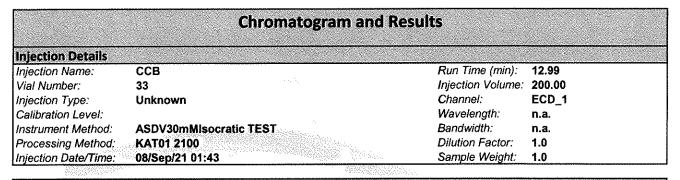


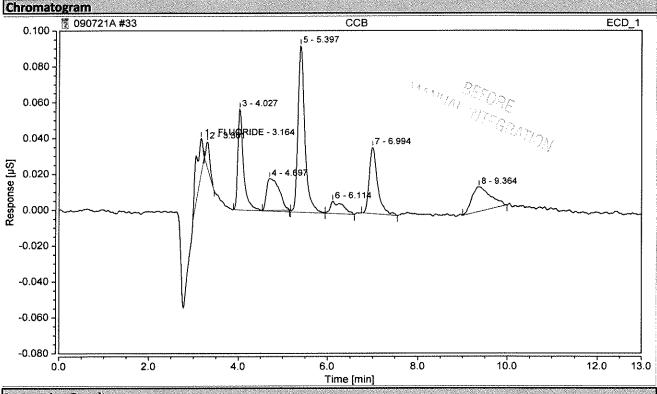
No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1 2000	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.897	6.577	28.286	11.60	9.07	40.6638	103.3192
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total			22.326	118.770	39.38	38.06		

Chromatogram and Results							
Injection Details							
Injection Name:	CCV	Run Time (min):	12.99				
Vial Number:	32	Injection Volume:	200.00				
Injection Type:	Check Standard	Channel:	ECD_1				
Calibration Level:	06	Wavelength:	n.a.				
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.				
Processing Method:	KAT01 2100	Dilution Factor:	1.0				
Injection Date/Time:	08/Sep/21 01:25	Sample Weight:	1.0				



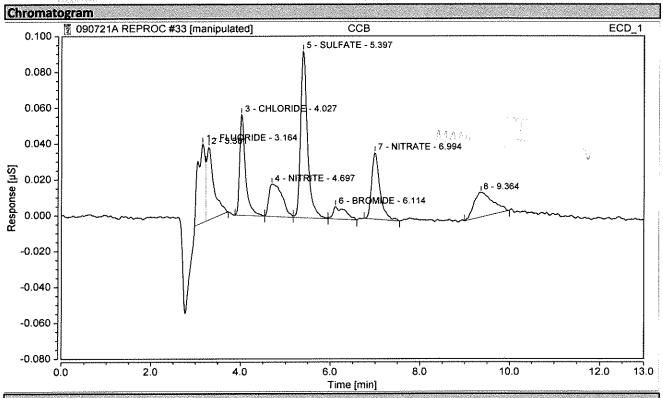
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1 3933	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
2	CHLORIDE	4.031	11.274	80.232	19.89	25.71	38.6946	286.9455
3	NITRITE	4.677	6.927	36.121	12.22	11.58	11.2846	182.1161
4	SULFATE	5.364	7.947	43.435	14.02	13.92	37.2332	86.1661
5	BROMIDE	6.084	4.964	26.234	8.76	8.41	37.7135	88.5673
6	NITRATE	6.897	6.577	28.286	11.60	9.07	8.7709	119.2715
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			53.438	304.792	94.27	97.68		





No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev.
		min	µS*min	μS	%	%	mg/L	%
1.8388	FLUORIDE	3.164	0.004	0.020	7.62	7.62	0.0087	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	<u>n.a.</u>	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			0.004	0.020	7.62	7.62		

	Chromatog	ram and Results	
Injection Details			
Injection Name:	ССВ	Run Time (min):	12.99
Vial Number:	33	Injection Volume:	200.00
Injection Type:	Unknown	Channel:	ECD_1
Calibration Level:		Wavelength:	n.a.
Instrument Method:	ASDV30mMIsocratic TEST	Bandwidth:	n.a.
Processing Method:	KAT01 2100	Dilution Factor:	1.0
Injection Date/Time:	08/Sep/21 01:43	Sample Weight:	1.0



No.	Peak Name	Retention Time	Area	Height	Relative Area	Relative Height	Amount	Amnt.Dev
		min	µS*min	μŠ	%	%	mg/L	%
1.88	FLUORIDE	3.164	0.008	0.044	12.85	14.20	0.0175	n.a.
3	CHLORIDE	4.027	0.008	0.056	13.03	18.16	0.1186	n.a.
4	NITRITE	4.697	0.006	0.018	9.72	5.83	0.0102	n.a.
5	SULFATE	5.397	0.017	0.093	26.09	30.04	0.0785	n.a.
6	BROMIDE	6.114	0.002	0.007	3.35	2.23	0.0099	n.a.
7.888	NITRATE	6.994	0.008	0.037	12.46	11.96	0.0393	n.a.
n.a. 🛛	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	•		0.050	0.255	77.50	82.42		

Calibration Batch Report

Sequence: 083121/ Instrument Method: ASDV5	A CAL MLCUPS	Injection Volume: Operator:	200.00 Katahdin Analytical
	2021 / 17:56	Run Time:	12.993833

Calibration Summary							
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	ia. 0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:	1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 -	-0.0034	0.5579	0.0000	99.9209

Injection Name	Ret.Time	Агеа	Height	Amount	7.00 -	CHLORID	E External	ECD_1
	min	µS*min	μS	mg/L	6.00 -	µS*min		\star
CHLORIDE	CHLORIDE	CHLORIDE	CHLORIDE	CHLORIDE	0.00 -			
	ECD_1	ECD_1	ECD_1	ECD_1				
CAL 1	4.034	0.0045	0.031	0.039	4.00 -			
CAL 2	4.034	0.0261	0.175	0,106			\star	
CAL 3	4.034	0.2526	1.884	0.802	2.00 -			
CAL 4	4.034	0.6935	5.136	2.157	2.00	×		
CAL 5	4.034	1.4164	10.395			X		mg/L
CAL 6	4.031	2.8556	20.827	8.802	0.00]			
CAL 7	4.034	5.8397	41.807	17.974	0	0	12.5	25.0
Average	4.033							
Rel. Std. Dev.	0.031 %							·.

njection Name	Ret.Time	Area	Height	Amount	7.00 NITRA		ECD_1
	min	µS*min	μS	mg/L	- µS*m 6.00 -	in	*
NITRATE	NITRATE	NITRATE	NITRATE	NITRATE	0.00 -		
	ECD_1	ECD_1	ECD_1	ECD_1		· · · /	
CAL 1	7.011	0.0082	0.035	0.024	4.00 -		
CAL 2	7.011	0.0265	0.127	0.047		×	
CAL 3	7.004	0.2564	1.301	0.325	2.00		
CAL 4	6.994	0.7128	3.556	0.877		¥	
CAL 5	6.981	1,4721	7.151	1.796			mg/L
CAL 6	6.957	2.9835	13.912	3.626	0.00] 🕊 🚬		
CAL 7	6.921	6.0048	26.224	7.283	0.00	5.00	9.00
Average	6.982						
Rel. Std. Dev.	0.476 %						

Injection Name	Ret.Time	Area	Height	Amount	6.00 -	NITRITE	External	ECD_1
	min	µS*min	μS	mg/L	-	µS*min		×
NITRITE	NITRITE	NITRITE	NITRITE	NITRITE				
	ECD_1	ECD_1	ECD_1	ECD_1	4.00 -		/	
CAL 1	n.a.	n.a.	n.a.	n.a.	-			
CAL 2	4.674	0.0221	0.114	0.032			\star	
CAL 3	4.671	0.2418	1.565	0.348	2.00 -			
CAL 4	4.671	0.6591	4.201	0.948		1 7		

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

CAL 5		4.674	1.3297	8.181	1.914			mg/L
CAL 6		4.677	2.5727	15.131	3.702	0.00		
CAL 7		4.684	4.8209	26.707	6.938	0.00	5.00	9.00
	Average	4.675						

Rei. Std. Dev. 0.107 %

Injection Name	Ret.Time	Area	Height	Amount	1.20 -	PHOSPH	ATE	ECD_1
	min	µS*min	μŜ	mg/L		Unit?		
PHOSPHATE	PHOSPHATE	PHOSPHAT	PHOSPHATI	PHOSPHATE	1.00 -			1 A A
	ECD_1	ECD_1	ECD_1	ECD_1				
CAL 1	n.a.	п.а.	n.a.	n.a.				
CAL 2	n.a.	n.a.	n.a.	n.a.	0.50 -			
CAL 3	n.a.	n.a.	n.a.	n.a.	-			
CAL 4	n.a.	n.a.	n.a.	n.a.				
CAL 5	n.a.	n.a.	n.a.	n.a.				mg/L
CAL 6	n.a.	n.a.	n.a.	n.a.	0.00			
CAL 7	n.a.	n.a.	n.a.	n.a.	0	.0	5.0	10.0 12.0
Average	#DIV/0!							
Rel, Std. Dev.	#DIV/0!							
	en ky planich a s		Sanggaran (1997) Sanggaran (1997)				1	

Injection Name BROMIDE	Ret.Time min BROMIDE	Area µS*min BROMIDE	Height µS BROMIDE	Amount mg/L BROMIDE	35.0 - 30.0 -	μS		ECD_1
V	ECD_1	ECD_1	ECD_1	ECD_1	-			
CAL 1	n.a.	n.a.	n.a.	n.a.	20.0 -			
CAL 2	6.144	0.0185	0.095	0.130			+	۰.
CAL 3	6.137	0.2220	1.261	1.719	10.0 -			
CAL 4	6.134	0.6055	3.477	4.740	10.0 -	×		
CAL 5	6.127	1.2577	7.099	9.677		×.		mg/L
CAL 6	6.117	2.5482	14.093	19.211	0.0 -			
CAL 7	6.097	5.2194	27.705	37.766	0	0	20.0	45.0
Average	6.126		2014년 11월 - 11일 1220년 12일 - 12일 - 12일					
Rel. Std. Dev.	0.275 %							

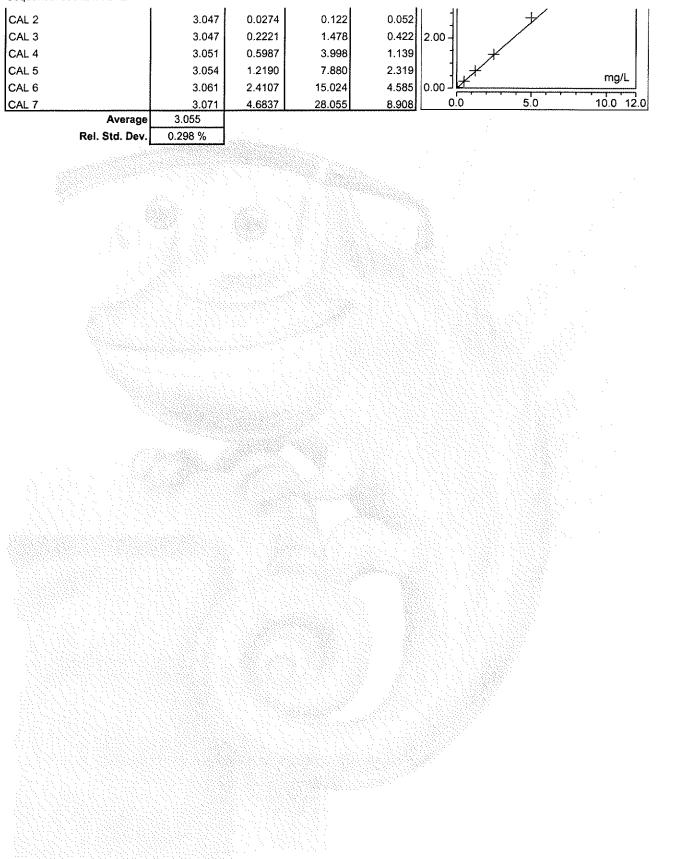
	100.00	1400-040-4	2011 C 1 1 1 1
el.		Dev.	

	·.	ngagat n		이야지 : · · · · · · · · · · · · · · · · · ·	
Injection Name	Ret.Time	Area	Height	Amount	11.0 SULFATE External ECD_1
	min	µS*min	μS	mg/L	10.0 - µS*min
SULFATE	SULFATE	SULFATE	SULFATE	SULFATE	
	ECD_1	ECD_1	ECD_1	ECD_1	7.5-
CAL 1	5.454	0.0090	0.048	0.037	
CAL 2	5.454	0.0339	0.184	0.140	5.0-]
CAL 3	5.451	0.3766	2.165	1.559	
CAL 4	5.447	1.0175	5.855	4.211	2.5-
CAL 5	5.441	2.0721	11.737	8.576	mg/L
CAL 6	5.431	4.1763	23.325	17.285	
CAL 7	5.411	8.6085	45.581	35.629	0.0 20.0 45.
Average	5.441				
Rel. Std. Dev.	0.290 %				

Rel. Std. Dev. 0.290 %

Injection Name	Ret.Time	Area	Height	Amount	6.00 -	FLUORIDE External	ECD_1
	min	µS*min	μs	mg/L	-	µS*min	
FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE			
	ECD_1	ECD_1	ECD_1	ECD_1	4.00 -		
CAL 1	n.a.	n.a.	n.a.	n.a.	-		

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	BLANK	4.034	0.0093	33.63	0.06	40.78	0.0542
2	CAL 1	4.03 4	0.0045	20.78	0.03	27.12	0.0395
3	CAL 2	4.034	0.0261	16.86	0.18	21.48	0.1057
4 🖉	CAL 3	4.034	0.2526	15.79	1.88	19.38	0.8019
5	CAL 4	4.034	0.6935	15.72	5.14	19.34	2.1572
6 ^{3,53}	CAL 5 ANY CANA	4.034	1.4164	15.53	10.40	19.46	4.3791
7	CAL 6	4.031	2.8556	15.46	20.83	19.89	8.8024
8	CAL 7	4.034	5.8397	15.63	41.81	20.79	17.9740
	Sum:	32.267	11.098	149.401	80.317	188.233	34.314
	Average:	4.033	1.387	18.675	10.040	23.529	4.289
	Rel.Std.Dev:	0.029 %	147.768 %	33.736 %	146.452 %	31.596 %	146.886 %

1 BLANK 7.014 0.0120 43.23 0.06 38.01 2 CAL 1 7.011 0.0082 37.58 0.04 30.91 3 CAL 2 7.011 0.0265 17.16 0.13 15.55 4 CAL 3 7.004 0.2564 16.03 1.30 13.38 5 CAL 4 6.994 0.7128 16.16 3.56 13.39 6 CAL 5 6.981 1.4721 16.14 7.15 13.39 7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
3 CAL 2 7.011 0.0265 17.16 0.13 15.55 4 CAL 3 7.004 0.2564 16.03 1.30 13.38 5 CAL 4 6.994 0.7128 16.16 3.56 13.39 6 CAL 5 6.981 1.4721 16.14 7.15 13.39 7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	1	BLANK (State	7.014	0.0120	43.23	0.06	38.01	0.0290
4 CAL 3 7.004 0.2564 16.03 1.30 13.38 5 CAL 4 6.994 0.7128 16.16 3.56 13.39 6 CAL 5 6.981 1.4721 16.14 7.15 13.39 7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	2	CAL 1	7.011	0.0082	37.58	0.04	30.91	0.0244
5 CAL 4 6.994 0.7128 16.16 3.56 13.39 6 CAL 5 6.981 1.4721 16.14 7.15 13.39 7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	3	CAL 2	7.011	0.0265	17.16	0.13	15.55	0.0466
6 CAL 5 6.981 1.4721 16.14 7.15 13.39 7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	4	CAL 3	7.004	0.2564	16.03	1.30	13.38	0.3249
7 CAL 6 6.957 2.9835 16.15 13.91 13.29 8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	5	CAL 4	6.994	0.7128	16.16	3.56	13.39	0.8773
8 CAL 7 6.921 6.0048 16.07 26.22 13.04 Sum: 55.891 11.476 178.516 52.363 150.945	6	CAL 5	6.981	1.4721	16.14	7.15	13.39	1.7963
Sum: 55.891 11.476 178.516 52.363 150.945	7	CAL 6	6.957	2.9835	16.15	13.91	13.29	3.6258
	8	CAL 7	6.921	6.0048	16.07	26.22	13.04	7.2829
		Sum:	55.891	11.476	178.516	52.363	150.945	14.007
The second the Average: 0.980 3 1,435 200 22.314 0.545 1 20.545		Average:	6.986	1.435	22.314	6.545	18.868	1.751
Rel.Std.Dev: 0.469 % 147.259 % 50.513 % 141.917 % 52.146 %		Rel.Std.Dev:	0.469 %	147.259 %	50.513 %	141.917 %	52.146 %	146.040 %

No. NITRITE	Name NITRITE	Time Area min µS*m NITRITE NITRI ECD_1 ECD		Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	mg/L NITRITE ECD_1
1 - Se	BLANK	n.a.	n.a.	n.a.	n.a. 🔆	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	4.674	0.0221	14.33	0.11	13.90	0.0319
4	CAL 3	4.671	0.2418	15.12	1.56	16.09	0.3479
5	CAL 4	4.671	0.6591	14.94	4.20	15.82	0.9485
¹⁶¹ 6 100	CAL 5	4.674	1.3297	14.58	8.18	15.32	1.9136
7	CAL 6	4.677	2.5727	13.93	15.13	14.45	3.7023
8	CAL 7	4.684	4.8209	12.90	26.71	13.28	6.9377
	Sum:	28.050	9.646	85.793	55.897	88.851	13.882
	Average:	4.675	1.608	14.299	9.316	14.809	2.314
	Rel.Std.Dev:	0.107 %	113.378 %	5.629 %	108.245 %	7.514 %	113.378 %

1000 (Constant)							
No.	Name	Time min	Area µS*min	Rel.Area %	Height µS	Rel.Height %	Amount mg/L
PHOSPHATE		PHOSPHATE ECD_1	PHOSPHATE ECD_1	PHOSPHATE ECD_1	PHOSPHATE ECD_1	PHOSPHATE ECD_1	PHOSPHATE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
8	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	6.144	0.0185	11.99	0.10	11.67	0.1298
4	CAL 3	6.137	0.2220	13.88	1.26	12.97	1.7191
5	CAL 4	6.134	0.6055	13.72	3.48	13.09	4.7398
6	CAL 5	6.127	1.2577	13.79	7.10	13.29	9.6766
7	CAL 6	6.117	2.5482	13.80	14.09	13.46	19.2109
8	CAL 7	6.097	5.2194	13.97	27.70	13.78	37.7657
	Sum:	36.756	9.871	81.149	53.730	78.247	73.242
	Average:	6.126	1.645	13.525	8.955	13.041	12.207
	Rel.Std.Dev:	0.275 %	120.014 %	5.597 %	117.024 %	5.609 %	117.024 %

No. SULFATE	Name	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	BLANK	5.454	0.0064	23.14	0.03	21.21	0.0265
2	CAL 1	5.454	0.0090	41.65	0.05	41.97	0.0374
3	CAL 2	5.454	0.0339	21.96	0.18	22.48	0.1405
4	CAL 3	5.451	0.3766	23.55	2.17	22.26	1.5586
5	CAL 4	5.447	1.0175	23.06	5.85	22.05	4.2114
6	CAL 5	5.441	2.0721	22.72	11.74	21.97	8.5760
7 988	CAL 6	5.431	4.1763	22.61	23.32	22.27	17.2851
8	CAL 7	5.411	8.6085	23.04	45.58	22.66	35.6294
	Sum:	43.541	16.300	201.724	88.926	196.883	67.465
	Average:	5.443	2.038	25.216	11.116	24.610	8.433
	Rel.Std.Dev:	0.281 %	148.176 %	26.393 %	144.660 %	28.557 %	148.176 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<u>- 3</u>	CAL 2	3.047	0.0274	17.71	0.12	14.92	0.0521
4	CAL 3	3.047	0.2221	13.89	1.48	15.19	0.4224
5	CAL 4	3.051	0.5987	13.57	4.00	15.05	1.1388
6	CAL 5	3.054	1.2190	13.36	7.88	14.75	2.3186
7	CAL 6	3.061	2.4107	13.05	15.02	14.35	4.5853
8	CAL 7	3.071	4.6837	12.54	28.06	13.95	8.9084
	Sum:	18.330	9.162	84.119	56.557	88.215	17.426
	Average:	3.055	1.527	14.020	9.426	14.702	2.904
	Rel.Std.Dev:	0.298 %	115.879 %	13.301 %	112.271 %	3.199 %	115.879 %

Chromeleon (c) Dionex 1996-2009 Version 7.1.0.898

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: Auto

01

Pipette ID(s) AUD

PREP	SAMPLE	WEIGHT	TOTAL H20	ANALYSIS	SPIKE
TIME	ID	(g)	ADDED(ml)	REQUESTED	ADDED
15:25	BLANK		100	Nor	·S m of MA+
1	LCS		1		V
t	504882-6	10.1388	1		1 mi of 6288-6
	L			······	
				55	
				9/8/21	
NOTES:					
					,
L	~~	~ <i>t</i> -	A		
ANALYST:		DATE: 9/7	12	<u>,</u>	
CHECKED I	BY:	DATE:			

WL-035 - Revision 3 - 01/20/2020

0000092 Katahdin Analytical Services 5000106

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: 0

Pipette ID(s) anto

PREP	SAMPLE	WEIGHT	TOTAL H20	ANALYSIS	SPIKE
TIME	ID	(g)	ADDED(ml)	REQUESTED	ADDED
14:03	BLANK		(00)	FL.	
	LCS	`			
J	804882-16	10.0238	d	4	
			+		
)
		·			
		1.10			
		8725/21			
	, e				
	- 0				
NOTES:					
					•
	Δ.	d			
ANALYST:	Ŷ	DATE: DV	23121		
CHECKED E	BY:	DATE:			



Katahdin ANALYTICAL SERVICES

Wet Chemistry Batch Report

WG306238

Batch:

Date Analyzed: 16-SEP-21 Analyst Initials: SS

	15-SEP-21	
man finner are		

							007700							
	Date Analyzed:	yzed: 16-SEP-2	21		Prep M	Prep Method: N/A								
		15-SEP-21	21		Prep C	Prep Chemist: SS								
										Adj.	•	Adj.		
	Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	PQL	MDL	MDL I	RPD Rec.	
	SO5463-2DLS	SAMP	SW846 9056A	Chloride	7	27.9158	28	me/L	7	4.0	.0993 (0.20		
	7-11908	SAMP	SW846 9056A	Chloride	,	19.0356	19	me/L	7	2.0	-	0.099		
	7-1/1000	SAMP	SW840 9056A	Fluoride Mitrate of M		.1267	0.13	mg/L	.05 2 2	0.050		0.0072		
	SO6177-4	SAMP	SW846 90564	Chloride		6/01.0	0.11	mg/L.	ŝ,	0.050	0174 (0.017		
	SO6177-4	SAMP	SW846 9056A	Fluoride		0872	7.2	me/L	7	0.050		0.007		
	SO6177-4	SAMP	SW846 9056A	Nitrate as N		.0344	J 0.034	me/L	6. 20	0.050	0174	0.017		
	SO6177-6	SAMP	SW846 9056A	Chloride		9.2649	9.3	me/L	20	2.0		0.099		
	SO6177-6	SAMP	SW846 9056A	Fluoride	1	.1036	0.10	me/L	.05	0.050		0.0072		
	SO6177-6	SAMP	SW846 9056A	Nitrate as N	•	.0328	J 0.033	me/L	.05	0.050		0.017		
	1-077005	SAMP	SW846 9056A	Chloride		8.6664	8.7	mg/L	64 ⁷	2.0	ŝ	0.50		
	SO6720-1	SAMP	SW846 9056A	NIUAIC AS N Sulfate		.110 7 835	0.12	me/L	<u>.</u>	0.050		0.020		
	SO6220-2	SAMP	SW846 9056A	Chloride	ni p	5 9847	6.0	T/am	- 6	0.0	9 v	05 O		
	SO6220-2	SAMP	SW846 9056A	Nitrate as N		4768	0.48	me/L	.05	0.050	05	0.020		
	SO6220-2	SAMP	SW846 9056A	Sulfate	-	6.6001	6.6	me/T		1.0	25	0.25		
	SO6220-3	SAMP	SW846 9056A	Chloride	-	3.6945	3.7	mg/L	7	2.0	.5	0.50		
	SO6220-3	SAMP	SW846 9056A	Nitrate as N		.0461	J 0.046	me/L	.05	0.050	.02	0.020		
	SO6220-3	SAMP	SW846 9056A	Sulfate		2.9252	2.9	mg/L		1.0		0.25		
	SO6220-4	SAMP	SW846 9056A	Chloride	 •	5.9706	6.0	mg/L	2	2.0		0.50		
	S06220-4	SAMP	SW846 9056A	Nitrate as N		.0906	0.091	mg/L	.05	0.050	50	0.020		
	506220 5	SAMP	SW840 9050A	Suitate		6.5929	6.6	mg/L	4	1.0		0.25		
	C-02200S	SAMP	5 W 846 9056 A	Unionae Nitrate ac N		6.3178 0056	6.3 0.002	me/L	2	2.0		0.50		
	SO6720-5	SAMP	SW846 9056 A	Sulfate		0060	040.0	1/3u	Cn	0.001		0700		
	SO6220-6	SAMP	SW846 9056A	Chloride		5 6787	2 · · ·	mg/L mg/I	- (0.1	6 v	05 U		
k	SO6220-6	SAMP	SW846 9056A	Nitrate as N		0.545	0.054	me/I	رج 13	0.050		0000		
(a	SO6220-6	SAMP	SW846 9056A	Sulfate		5.9358	5.9	mg/L	<u>} -</u>	1.0	25	0.25		
ta	SO6220-7	SAMP	SW846 9056A	Chloride		8.6928	8.7	me/L	• 64	2.0		0.50		
ah	SO6220-7	SAMP	SW846 9056A	Nitrate as N		.1116	0.11	mg/L	-05	0.050		0.020		
d	SO6220-7	SAMP	SW846 9056A	Sulfate		7.8769	7.9	me/L		1.0	25	0.25		
in	SO6220-8	SAMP	SW846 9056A	Chloride		.3506	U 1.0	me/L	7			0.50		
A	SO6220-8	SAMP	SW846 9056A	Nitrate as N	,	.0794	0.079	me/L	.05		.02	0.020		
n	200770-9	SAMP WDI ANV	SW840 9050A	Sulfate		3721	J 0.37	me/L	(0.25		
al	WG306738-1	MBLANN MRI ANK	X0206 0450 X X X X X X X X X X X X X X X X X X X	Chloride		CC11.	J 0.12	me/L	NC	5.0		0.099		
yt	WG306238-1	MRLANK	SW846 9056A	Fluoride		0146	1 0.015		7 7	0.050		0.00		
ic	WG306238-1	MBLANK	SW846 9056A	Nitrate as N	a	0377	1 0.038	me/l	ci 2	0.050.0	7/00.	7/00/0		
a	WG306238-1	MBLANK	SW846 9056A	Nitrate as N	4 	0377	1 0.038	me/L	6	0.050		0.000		
1 \$	WG306238-1	MBLANK	SW846 9056A	Sulfate	د بر سر	0371	U 0.50	me/l.	<u>}</u>	10	4 K	0.25		
Se	WG306238-2	LCS	SW846 9056A	Chloride		3 8994	3.90	me/L	• • •	0.0	~	0.099	104	
er	WG306238-2	LCS	SW846 9056A	Chloride		3 8994	3.90	me/L	10	2.0		0.50	104.	
vi	WG306238-2	TCS	SW846 9056A	Fluoride		3.9217	3.92	me/L	.05	0.050	72	0.0072	104	
Ce	WG306238-2	LCS	SW846 9056A	Nitrate as N	-	.9645	* 0.964	me/L	.05	0.050		0.017	114.	
es	WG306238-2 WG306238-2		SW846 9056A SW846 9056A	Nitrate as N Sulfate		.9645 3 5761	* 0.964 3.58	me/L	.05	0.050	25	0.020	114.	
50	7-0770070	ΓΥ Ω	VACAL ALANC	ounder		10/0.0	٥ <u>۲</u> .۲		-	1.0	9	62.0	5.56	
00	:	しい		- alarita			57	5			Ì	A C	how of	
01	Entered by:	3		Date: 1/20/20		Accepted by:	by: LUZ	6		Dat	Date: 07	1/cer	J	
10				50 S.)				į	2		



ANALYTICAL SERVICES



Wet Chemistry Batch Report

WG306238

Batch:

Prep Method: N/A

Date Analyzed: 16-SEP-21 Analyst Initials: SS

15-SEP-21

		15-SEP-21	21		Prep C	Prep Chemist: SS								
	Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	IQT	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
	WG306238-3	LCSD	SW846 9056A	Chloride	-	3.6326	3.63	me/I	6	00	1003	0000	-	96. R
	WG306238-3	LCSD	SW846 9056A	Chloride		3.6326	3.63	me/l.	<u>ب</u> ا	0	, , ,	0.50	- (-	96.8
	WG306238-3	LCSD	SW846 9056A	Fluoride	_	3.8121	3.81	me/L	.05	0.050	0072	0.000		10.5
	WG306238-3	LCSD	SW846 9056A			.8081	0.808	me/L	05	0.050	0174	0.017	, ~	95.6
	WG306238-3	LCSD	SW846 9056A	Nitrate as N		.8081	0.808	me/L	05	0.050	02	0.020		95.6
	WG306238-3	LCSD	SW846 9056A	Sulfate		3.257	* 3.26	me/L	-	1.0	25	0.25	6	86.9
	WG306238-4	MS	SW846 9056A	Chloride	2	35.1211	35,	mg/L	5	4.0	.0993	0.20		96.1
	WG306238-5	MSD	SW846 9056A	Chloride	7	35.1657	35.	mg/L	2	4.0	.0993	0.20	¢	96.7
	WG306238-6	MS	SW846 9056A	Chloride		10.2426	* 10,	mø/L	3	2.0	Ś	0.50	,	14
	WG306238-6	MS	SW846 9056A	Nitrate as N	-	.8591	0.86	me/L	05	0.050	05	0.020		606
	WG306238-6	MS	SW846 9056A	Sulfate	_	9.7989	* 9.8	me/L		1.0	.25	0.25		85.5
	WG306238-7	MSD	SW846 9056A	Chloride		10.3721	* 10.	me/l	2	2.0	5	0.50	-	117
	WG306238-7	MSD	SW846 9056A	Nitrate as N		8655	0.86	m9/1	.0	0.050	i S	0.020		01.7
	WG306238-7	MSD	SW846 9056A	Sulfate		9.7663	* 9.8	me/L	-	1.0	.25	0.25	. C	846
								Ĺ			i	Ì	>	
	Comments:													
	SO5463-2	Ï	MS/MSD, Anions rep											
	SO6177-2	Ar	Anions list is SO4. NC											
	SO6177-4	Ar	Anions list is SO4. NC											
	SO6177-6	AL	Anions list is SO4, NC											
	SO6220-1	Ar	Anions: NO3, Cl, SO ²											
	SO6220-2	Ar	Anions: NO3, CI, SO ²											
	SO6220-3	Ar	Anions: NO3, CI, SO ²											
	SO6220-4	W	MS/MSD Anions: NC											
	SO6220-5	Ar	Anions: NO3, Cl, SO ²											
K	SO6220-6	Ar	Anions: NO3, CI, SO ²											
at	SO6220-7	Ar	Anions: NO3, CI, SO ²											
a	SO6220-8	Ar	Anions: NO3, Cl, SO ²											
ho	WG306238-1	SC	SO5463-2											
dir	WG306238-2	SC	SO5463-2											
17	WG306238-3	ž	SO6177-2											

Katahdin Analytical Services 5000109

SO5463-2 SO5463-2 SO6220-4 SO6220-4

WG306238-4 WG306238-5 WG306238-6 WG306238-7

Accepted by:

Date: 7/10/11

Entered by: 5.5

Date: 09/20/24

ANALYTICAL SERVICES



Wet Chemistry Batch Report

Date Analyzed: 15-SEP-21 Analyst Initials: SS

Prep Method: E300.0 **Prep Chemist: SS**

WG306239

Batch:

Rec.	104. 1114. 102. 95.6 95.6 100.	
RPD F	2 ⁸ 2	D
Adj. MDL	$\begin{array}{c} 0.099\\ 0.064\\ 0.064\\ 0.064\\ 0.017\\ 0.017\\ 0.0092\\ 0.0092\\ 0.017\\ 0.0092\\ 0.017\\ 0.0092\\ 0.099\\ 0.017\\ 0.092$	lla.
MDL	0092 0093 0637 0637 0637 0092 0092 0092 0093 0092 0093 0092 0093 0092 0093 0092 0093 0092 0093 0092 0092	Date: 09/2
Adj. PQL	2.0 2.0 1.0 0.0500000000	Ď
JQT	000 000 00 00 00 000	
Units	nert nert nert nert nert nert nert nert	W
Rpt. Result	14 13 21 21 21 21 22 21 22 23 23 23 25 0.0050 0.07 25 0.07 25 0.07 25 0.07 25 0.07 3.58 3.58 3.58 3.58 3.58 0.025	pA:
DF Result	 14.3604 13.2912 21.1632 2.3411 2.3411 0.631 0.489 0.489 0.4499 0.113 0.113 0.113 0.113 0.113 0.126 0.1427 0.371 0.371<	Accepted by.
r Parameter	Chloride Chloride Sulfate Nitrate as N Nitrate as N	Date: 7/20/11
e Method	EPA 300.0 EPA 30	Dont report benzene o Anions E300 list= Cl, Anions E300 list= Cl, SO6024-3 SO6024-3
Samp Type	SAMP SAMP SAMP SAMP SAMP SAMP SAMP SAMP	55
Sample	S06024-2 S06024-3 S06024-3 S06024-4 S06193-1 S06193-1 S06193-1 S06193-3 S06239-1 S06239-1 S06239-1 S06239-1 S06239-1 S06239-1 S06239-1 S06239-3 S06239-1 S06239-3 S06	Comments: SO6024-3 SO6024-4 wG306239-1 wG306239-2 wG306239-3 Entered by:
I		Katahdin Analytical Services 5000110



Date: 2/20/21





Wet Chemistry Batch Report

WG306241 Batch:

Prep Method: E300.0

Date Analyzed: 15-SEP-21

Analyst Initials: SS

Prep Chemist: SS

Rec.												04.	14	02.	6.8	56	100,		
RPD F												_			6	6	-		
		_	_	_	_	_		2	ı	_	2	١	_	6	-	8	2 2		
Adj. MDL	000	0000	0.099	0.099	0.099	0.099	0.017	0.009	0.099	0.017	0.009	0.099	0.017	0.009	0.099	0.017	0.0092		
MDL	600	1000	6660	0993	0993	0993	.0174	.0092	0003	0174	0092	0993	.0174	.0092	0993	.0174	.0092		
Adj. PQL	0 6	2.0	2.0	2.0	2.0	2.0	0.050	0.050	2.0	0.050	0.050	2.0	0.050	0.050	2.0	0.050	0.050		
PQL	6	10	10	10	10	1	.05	.05	7	.05	.05	2	.05	.05	3	.05	.05		
Units	m9/ľ.	me/L	me/L	me/L	me/L	mg/L	mg/L	me/L	me/L	me/L	mg/L	mg/L	m <u>e</u> /L	m <u>e</u> /L	mg/L	mg/L	mg/L		
Rpt. Result	4.6	9.3	U 2.0	2.1	5.6	6.1	0.68	0.15	J 0.12	J 0.038	U 0.025	3.90	* 0.964	1.16	3.63	0.808	1.14		
Result	.4.5618	• 9.2949	• 1.1372	- 2.093	+ 5.5712	9.1163	• .6753	. 147	.1155	•.0377	•.0075	.3.8994	9645	· 1.1623	• 3.6326	.8081	. 1.1427		
DF	-				,						-	-	-	-	-	-	I		
Parameter	Chloride	Chloride	Chloride	Chloride	Chloride	Chloride	Nitrate as N	Nitrite as N	Chloride	Nitrate as N	Nitrite as N	Chloride	Nitrate as N	Nitrite as N	Chloride	Nitrate as N	Nitrite as N		
Method	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0	EPA 300.0		limited metals volume SO6209-1 SO6209-1 SO6209-1						
Samp Type	SAMP	SAMP	MBLANK	MBLANK	MBLANK	LCS	LCS	LCS	LCSD	LCSD	LCSD		ي ي ي ي ي						
Sample	SO5988-1	SO6027-1	SO6083-1	SO6107-1	SO6109-1	SO6209-1	SO6209-1	SO6209-1	WG306241-1	WG306241-1	WG306241-1	WG306241-2	WG306241-2	WG306241-2	WG306241-3	WG306241-3	WG306241-3	Comments:	SO6107-1 WG306241-1 WG306241-2 WG306241-2

Date: 6/17/2

Accepted by:

Date: 09/201

	<u>`</u>	مر	us page.													ичнима авауст то ш п.				5										
	Calibration Date: <i>O</i> \$/3//1	Calibration Sequence: Ó \$3/2 (A C	If box at left is checked, continued from previous page. Refer to previous page for header information.	Mathod Codes	E EPA 300.0 SW SW846 9056A	atron mo J	Conneus								C1 20×	2x, Soy 2X	Soy 2X		5×	. 🖌 I	wer swaped			2×				5×	ч 5×	
2	ation D	ation S	f box at le tefer to pr												٦	J	Soy		ت ا	ٽ ا	3			J				رَ ل	504	
٥	Calibra	Calibr		nternater	ineyrated issigned sample		P04																							
				i vilennem	R Do not report, peak manually assigned R Do not report, reanalyze sample	code):	NO ₃ /	>	Ś	`	>									>	٤								>	1
ину н	79	2		nort neak	oort, peak i not report,	opropriate	P ,	>	M,	<,	>									>	3					:				
10GK	711220	2034	song	M Ro	R A R	e (enter al	SO4 ,	>	لک ا	>						2	2	>	>	>	٤								2	
ROMA	n S/N:	N: 19 [12021		rated with	Report or Reanalyze (enter appropriate code):	NOL	>	۲,	>	>									>	٢									
ION CHROMATOGRAPHY RUNLOG	Analytical Column S/N: 1 [しての子 マ	Guard Column S/N: (タリンのみイン	Suppressor S/N: してのようのしろ	stion	ally reintegi eak	Report o	CI / T	>	<i>۳</i> , ا	7.	ζ	>	>	>	R	r K	>	$\overline{}$	٢	>	٢)	>	К	>	Ν,	>	К,	>	
	Analytic	Guard C	Suppres	it moniture	u mampuaton c automatically SmartPeak		L	>	٢	/'	/									>	K								$\overline{}$	
- H				Concret witho	 Report, peak automatically reintegrated with SmartPeak 	Method	Code					S			Ψ				1			30	30	30	30	20	22	Z	5	
tical Se	12/	ogisel A				Dilution						ډ	2	2	/	-		_	ł			1	~		-	-		-	~	
Katahdin Analytical Services	Analysis Date: 09/15 / 10	Analysis Sequence: 09	Analyst: چ ک	Benertine / Beanshaie Codes	reporting / reanalysis course	 	Katandin Sample Number	Z	ccB	LCS	LCS L	50 5463-2	SU63-2 MS	5463-2 mSD	5968-4	1-209	2-	- ۲	7,	5	87	5986-1	6027-1	1-2409	6083-1	610781	6109-1	1-7219	6177-2	

S:w6306238 → Q576664 E:w6306237 -> R576666 Awiw6306241 -> R576666

Katahdin Analytical Services 5000112

Reviewed by: QAWL1026 - 00034

WL-069-Revision 1 - 04/12/20016

20/2 Review Date: CZ

0000019

Analysis Date:			Analyt	Analytical Column S/N:	mn S/N:	al Column S/N: C			Calibra	Calibration Date:		
Analysis Sequence:			Guard	Guard Column S/N:	S/N:				Calibra	Calibration Sequence:		
Analyst:			Suppre	Suppressor S/N	<u>.</u>				۽ ٿ	If box at left is checked, continued from previous page. Refer to previous page for header information.	ious page. n.	
Reporting / Reanalysis Codes:		Report with Report, pe	hout manip ak automa Smai	 Report without manipulation Report, peak automatically reintegrated with SmartPeak 	grated with	≥∢⊻	M Report, peak manually integrated A Report, peak manually assigned R Do not renort reanalyze sample	manually i manually a reanalyze		Method Codes: E EPA 300.0 SW SWARD ODEEA		
Katahdin Sample Number	Dilution	Method	–	Report	or Reanaly	90	appropriate	code):		Comments		allow
	-			N S	52		Ğ	E 2	j.			
2-2-2-10-05			5			Ł				SOU 5X		
7-		S	>	7		2		>		SOH SX		
9	~	-+	$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$	>	`	Ł	1					
ઝુ			\geq	\geq	>	>	>			2	<i>م</i> ا	
Ccß			٤	٢	5	Z	٤	5		Swapped.		
6173-1	-				5							
2-					5			>				
-3								\mathbf{b}				
1-2029	1	5m						>				
6214-1		£						-				
t-0229	-	کا ا		Υ,		\geq		>				
1	-			\mathbf{i}		\mathbf{i}		>				
00 1	_			>		2		$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$				
r 1	-					$\mathbf{\Sigma}$		$\mathbf{\hat{\boldsymbol{\lambda}}}$				
- 2	-	-1)		>						
રુ			>	>	>	2	\mathbf{i}	>				
cc &			٤	Ś	۲	5	Z	٤				
6220-2	_	б		>		\mathbf{i}		$\mathbf{>}$				
<u>ب</u>	-	-		>		\mathbf{i}		$\langle \rangle$				
フィ				>		>`)			**************************************	
SN H -				>		\mathbf{X}		\sum				
- 4 MSD	_	1		>				$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$				
				I) x - 1	K	l	1		
VVL-U09-KEVISION 1 - U4/12/20016	1002/21/	0		β Υ	QAW	Reviewed by: QAWL1026 - 000343	00034			Review Date: 07	00	000020

200

60.1

adi 11

191

data di

52.4

в×.

433

Row and American American American

~~~

| quence:<br>analysis Codes:<br>S<br>Ple Number Dilution                                      |                             | C Prove                                                                  |                                                                                          | ź                   |                     |                                                                                                       |                                        |                          |                                                                                                            |
|---------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------|---------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------|
| S<br>S<br>Factor                                                                            |                             | 7 7 8 7 9                                                                | Guard Column S/N:                                                                        |                     |                     |                                                                                                       |                                        | Calibrat                 | Calibration Sequence:                                                                                      |
| S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S |                             | Suppres                                                                  | Suppressor S/N:                                                                          |                     |                     |                                                                                                       |                                        |                          | If box at left is checked, continued from previous page.<br>Refer to previous page for header information. |
| Dilution<br>Factor                                                                          | sport withou<br>sport, peak | Report without manipulation<br>Report, peak automatically r<br>SmartPeak | Report without manipulation<br>Report, peak automatically reintegrated with<br>SmartPeak | ated with           | Re<br>Re<br>Do<br>B | Report, peak manually integrated<br>Report, peak manually assigned<br>Do not report, reanalyze sample | manually ir<br>manually a<br>reanalyze |                          | Method Codes:<br>E EPA 300.0<br>SW SW846 9056A                                                             |
|                                                                                             | Method<br>Code              | -<br>-<br>-<br>-                                                         | Report of<br>CI                                                                          | r Reanalyz<br>NO, U | e (enter a<br>SO,   | Report or Reanalyze (enter appropriate code):<br>CI NO. SO. Br. NO.                                   | code):<br>NO <sub>3</sub>              | b0,                      | Comments                                                                                                   |
|                                                                                             |                             | 5                                                                        | 2                                                                                        | $\geq$              | D                   |                                                                                                       |                                        |                          |                                                                                                            |
| R B                                                                                         |                             | ٤                                                                        | 3                                                                                        | Z                   | ٤                   | 3                                                                                                     | ٤                                      |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             | +                           |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        | $\left[ \right. \right]$ |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     | $\left  \right\rangle$                                                                                |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          | $\backslash$        |                     |                                                                                                       | SS                                     | 9/16                     | M                                                                                                          |
|                                                                                             | •                           |                                                                          |                                                                                          |                     |                     |                                                                                                       | )                                      | •                        |                                                                                                            |
|                                                                                             | +                           |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
| ×                                                                                           |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |
|                                                                                             |                             |                                                                          |                                                                                          |                     |                     |                                                                                                       |                                        |                          |                                                                                                            |

ì

Street, Street

....

0000021



Katahdin Analytical Services 5000114

# IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

| LMIX     | D: W20364                 |    | Expiration Dat           | e:09/29/21 | ICAL                                   | Date: 08/31/21 |                   |
|----------|---------------------------|----|--------------------------|------------|----------------------------------------|----------------|-------------------|
| ALYTE    | INITIAL<br>AMOUNT<br>(mL) | OF | STOCK<br>CONC.<br>(mg/L) | то         | FINAL<br>VOLUME(mL)                    |                | FINAL CONC.(mg/L) |
| CI       | 2.0                       | OF | 1000                     |            | ······································ | =              | 20                |
| 2 (as N) | 0.8                       | OF | 1000                     |            |                                        | =              | 8                 |
| 3 (as N) | 0.8                       | OF | 1000                     | 1          |                                        | =              | 8                 |
| Br       | 4.0                       | OF | 1000                     | то         | 100                                    | =              | 40                |
| SO4      | 4.0                       | OF | 1000                     |            |                                        | -              | 40                |
| F        | 1.0                       | OF | 1000                     |            |                                        | =              | 10                |
| 4 (as P) | 1                         | OF | 1000                     |            |                                        | =              | 10                |

### WORKING STANDARDS Standards prepared on each day of use

|           | INITIAL        |      | Final          |     | i    | FINAL C | CONC. | (mg/L) | •    |      | STD        |
|-----------|----------------|------|----------------|-----|------|---------|-------|--------|------|------|------------|
| 5 <b></b> | AMOUNT<br>(mL) | OF   | Volume<br>(mL) | CI  | NO2  | NO3     | Br    | SO4    | P04  | F    | ID*        |
| ,         | 1              | ICAL | 1              | 20  | 8    | 8       | 40    | 40     | 10   | 10   | IC7-083121 |
| ;         | 0.5            | IC7  | 1              | 10  | 4    | 4       | 20    | 20     | 5    | 5    | IC6-083121 |
| ;         | 0.25           | IC7  | 1              | 5   | 2    | 2       | 10    | 10     | 2.5  | 2.5  | IC5-083121 |
| ŀ         | 0.25           | IC6  | 1              | 2.5 | 1    | 1       | 5     | 5      | 1.25 | 1.25 | IC4-083121 |
| ;         | 0.1            | IC6  | 1              | 1   | 0.4  | 0.4     | 2     | 2      | 0.5  | .5   | IC3-083121 |
| ?         | 0.1            | IC3  | 1              | 0.1 | 0.04 | 0.04    | 0.2   | 0.2    | 0.05 | .05  | IC2-083121 |
| v         | 0.5            | IC7  | 1              | 10  | 4    | 4       | 20    | 20     | 5    | 5    | CCV-091521 |

\* STD ID is prefix followed by the date of preparation (ie. IC6-020216)

| S/MATRIX SPIKE MIX | ID: W20365 | Expiration Date:093021 |  |
|--------------------|------------|------------------------|--|

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

| 31 | NO2<br>(as N) | NO3<br>(as N) | Br   | SO4  | PO4<br>(as P) | F    | STD<br>ID*    |
|----|---------------|---------------|------|------|---------------|------|---------------|
| 75 | 1.14          | 0.845         | 3.75 | 3.75 | 1.22          | 3.75 | IC-LCS-091521 |

\* STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)

Comments: **2x dil =** 0.5mL 1x $\rightarrow$ 1.0mL **20x dil =** 0.05mL 1x $\rightarrow$ 1.0mL **Pipettes:** W3, W5 **5x dil =** 0.2mL 1x→1.0mL **50x dil =** 0.02mL 1x→1.0mL

**10x dil** = 0.1mL 1x $\rightarrow$ 1.0mL **100x dil** = 0.1mL 10x $\rightarrow$ 1.0mL

WL-068 - Revision 2 - 04/08/2019

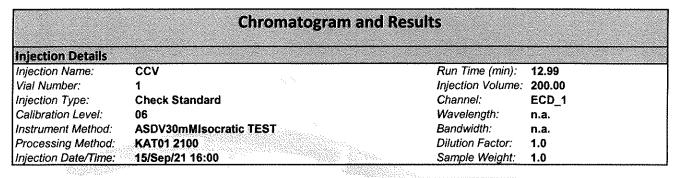
Katahdin Analytical Services 5000115

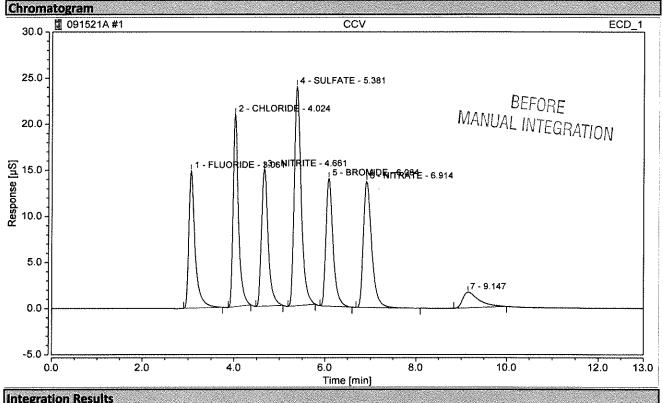
|                    | Sequence Overview                    | 1           |                     |
|--------------------|--------------------------------------|-------------|---------------------|
| Sequence Details   |                                      |             |                     |
| Name:              | 091521A REPROC                       | Created On: | 10/Feb/16 13:48:22  |
| Directory:         | Instrument Data\ICS-2100\2021\09-SEP | Created By: | Katahdin Analytical |
| Data Vault:        | ChromeleonLocal                      | Updated On: | 16/Sep/21 16:00:32  |
| No. of Injections: | 45                                   | Updated By: | Katahdin Analytical |
|                    |                                      |             |                     |

| Injectio | on Details     |          |                |                                          |                    |          |
|----------|----------------|----------|----------------|------------------------------------------|--------------------|----------|
| No.      | Injection Name | Position | Туре           | Level                                    | Inject Time        | Status   |
|          |                |          |                |                                          |                    |          |
| 1        | CCV            | 1        | Check Standard | 06                                       | 15/Sep/21 16:00:57 | Finished |
| 2        | CCB            | 2        | Unknown        | gerie seine                              | 15/Sep/21 16:14:54 | Finished |
| 3        | LCS            | 3        | Check Standard | 07                                       | 15/Sep/21 16:29:11 | Finished |
| 423030   | LCS            | 4        | Check Standard | 07                                       | 15/Sep/21 16:52:20 | Finished |
| 5        | SO5463-2       | 5        | Unknown        | 이번 중 것 것                                 | 15/Sep/21 17:06:22 | Finished |
| 6        | SO5463-2 MS    | 6        | Unknown        |                                          | 15/Sep/21 17:20:39 | Finished |
| 7        | SO5463-2 MSD   | 7        | Unknown        | 19.199 (N. 19.199 (N. 19                 | 15/Sep/21 17:34:55 | Finished |
| 8        | SO5968-4       | 8        | Unknown        |                                          | 15/Sep/21 17:49:11 | Finished |
| 9        | SO6024-1       | 9        | Unknown        |                                          | 15/Sep/21 18:03:27 | Finished |
| 10       | SO6024-2       | 10       | Unknown        | 10.00 (8.50 serve                        | 15/Sep/21 18:17:43 | Finished |
| 11       | SO6024-3       | 11       | Unknown        | 0.2 3 30 3 9                             | 15/Sep/21 18:32:00 | Finished |
| 12       | SO6024-4       | 12       | Unknown        |                                          | 15/Sep/21 18:46:15 | Finished |
| 13       | CCV            | 13       | Check Standard | 06                                       | 15/Sep/21 19:00:32 | Finished |
| 14       | CCB            | 14       | Unknown        | e di di di ana                           | 15/Sep/21 19:14:48 | Finished |
| 15       | SO5988-1       | 15       | Unknown        | 55 (55 (55 (5) (55 (5                    | 15/Sep/21 19:29:04 | Finished |
| 16       | SO6027-1       | 16       | Unknown        | an an Service Medical                    | 15/Sep/21 19:43:20 | Finished |
| 17       | SO6042-1       | 17       | Unknown        | in second the second of                  | 15/Sep/21 19:57:37 | Finished |
| 18       | SO6083-1       | 18       | Unknown        | 8 a 6 6 6                                | 15/Sep/21 20:11:53 | Finished |
| 19       | SO6107-1       | 19       | Unknown        |                                          | 15/Sep/21 20:26:10 | Finished |
| 20       | SO6109-1       | 20       | Unknown        |                                          | 15/Sep/21 20:40:26 | Finished |
| 21       | SO6174-1       | 21       | Unknown        |                                          | 15/Sep/21 20:54:42 | Finished |
| 22       | SO6177-2       | 22       | Unknown        | and share of                             | 15/Sep/21 21:08:58 | Finished |
| 23       | SO6177-4       | 23       | Unknown        |                                          | 15/Sep/21 21:23:14 | Finished |
| 24       | SO6177-6       | 24       | Unknown        | 2016 (A. 67. 67. 67.                     | 15/Sep/21 21:37:30 | Finished |
| 25       | CCV            | 25       | Check Standard | 06                                       | 15/Sep/21 21:51:47 | Finished |
| 26       | CCB            | 26       | Unknown        |                                          | 15/Sep/21 22:06:03 | Finished |
| 27       | SO6193-1       | 27       | Unknown        |                                          | 15/Sep/21 22:20:19 | Finished |
| 28       | SO6193-2       | 28       | Unknown        | 60 M 61 M 44 H                           | 15/Sep/21 22:34:35 | Finished |
| 29       | SO6193-3       | 29       | Unknown        |                                          | 15/Sep/21 22:48:52 | Finished |
| 30       | SO6209-1       | 30       | Unknown        |                                          | 15/Sep/21 23:03:08 | Finished |
| 31       | SO6214-1       | 31       | Unknown        | eras kirin era                           | 15/Sep/21 23:17:25 | Finished |
| 32       | SO6220-7       | 32       | Unknown        | 0.00                                     | 15/Sep/21 23:31:41 | Finished |
| 33       | SO6220-1       | 33       | Unknown        |                                          | 15/Sep/21 23:45:57 | Finished |
| 34       | SO6220-8       | 34       | Unknown        | an a | 16/Sep/21 00:00:13 | Finished |
| 35       | SO6220-3       | 35       | Unknown        | 5 6 <b>6</b> 6 6 6                       | 16/Sep/21 00:14:29 | Finished |
| 36       | SO6220-5       | 36       | Unknown        | elen en en elen elen el                  | 16/Sep/21 00:28:46 | Finished |
| 37       | CCV            | 37       | Check Standard | 06                                       | 16/Sep/21 00:43:02 | Finished |
| 38       | CCB            | 38       | Unknown        | 6 4 <b>6</b> 6 6 6 6 6                   | 16/Sep/21 00:57:18 | Finished |
| 39       | SO6220-2       | 39       | Unknown        | 2.0 2.2 0.0                              | 16/Sep/21 01:11:35 | Finished |
| 40       | SO6220-6       | 40       | Unknown        |                                          | 16/Sep/21 01:25:51 | Finished |
| 41       | SO6220-4       | 41       | Unknown        |                                          | 16/Sep/21 01:40:07 | Finished |
| 42       | SO6220-4 MS    | 42       | Unknown        | 80 S S 2000                              | 16/Sep/21 01:54:23 | Finished |

| 43 SO6220-4 MSD | 43 Unknown        | 16/Sep/21 02:08:40    | Finished |
|-----------------|-------------------|-----------------------|----------|
| 44 CCV          | 44 Check Standard | 06 16/Sep/21 02:22:56 | Finished |
| 45 CCB          | 45 Unknown        | 16/Sep/21 02:37:12    | Finished |

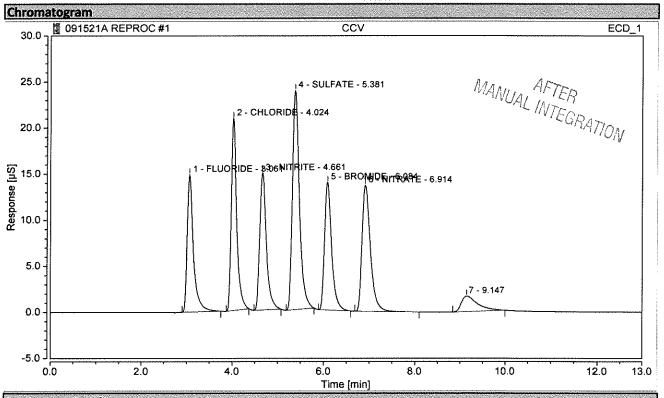






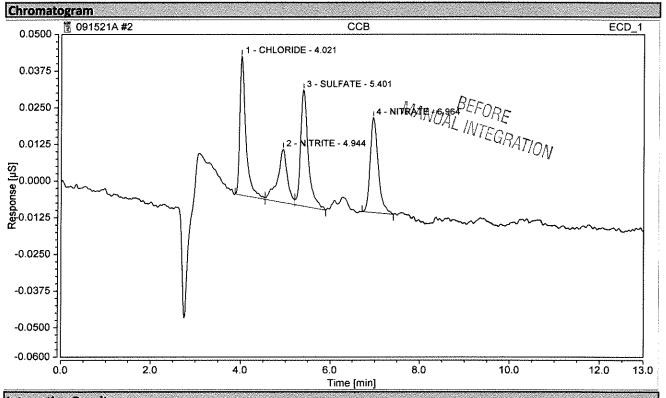
| No.    | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|--------|-----------|----------------|--------|---------|---------------|-----------------|---------|-----------|
| 1.1    |           | min            | µS*min | μS      | %             | %               | mg/L    | %         |
| 1.000  | FLUORIDE  | 3.061          | 2.372  | 14.903  | 13.06         | 14.37           | 5.0260  | 0.5192    |
| 2      | CHLORIDE  | 4.024          | 2.879  | 20.873  | 15.85         | 20.13           | 9.9484  | -0.5157   |
| 3      | NITRITE   | 4.661          | 2.533  | 14.874  | 13.95         | 14.35           | 4,1266  | 3.1642    |
| 4      | SULFATE   | 5.381          | 4.220  | 23.783  | 23.24         | 22.94           | 19.7716 | -1.1419   |
| 5      | BROMIDE   | 6.084          | 2.517  | 13.860  | 13.86         | 13.37           | 19.9246 | -0.3770   |
| 6      | NITRATE   | 6.914          | 2.933  | 13.698  | 16.15         | 13.21           | 3.9273  | -1.8165   |
| n.a. 📎 | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.      |
| Total: |           |                | 17.454 | 101.990 | 96.10         | 98.37           |         |           |

|                      | Chromatogram and       | d Results         | a de la companya de<br>La companya de la com<br>La companya de la com |
|----------------------|------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Injection Details    |                        |                   |                                                                                                                                                                                                                                                                                                                                                     |
| Injection Name:      | CCV                    | Run Time (min):   | 12.99                                                                                                                                                                                                                                                                                                                                               |
| Vial Number:         | 1                      | Injection Volume: | 200.00                                                                                                                                                                                                                                                                                                                                              |
| Injection Type:      | Check Standard         | Channel:          | ECD_1                                                                                                                                                                                                                                                                                                                                               |
| Calibration Level:   | 06                     | Wavelength:       | n.a.                                                                                                                                                                                                                                                                                                                                                |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                                                                                                                                                                                                                                                                                                                                                |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0                                                                                                                                                                                                                                                                                                                                                 |
| Injection Date/Time: | 15/Sep/21 16:00        | Sample Weight:    | 1.0                                                                                                                                                                                                                                                                                                                                                 |



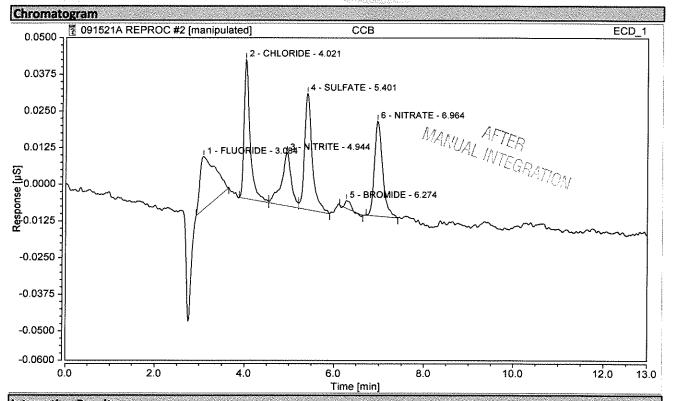
|                | ration Results | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I                                                                                                              | r <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | · ·                                 | <u></u>        |
|----------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------|
| No.            | Peak Name      | Retention Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Area<br>uS*min | Height<br>µS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Relative Area<br>%                                                                                             | Relative Height %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Amount<br>mg/L                      | Amnt.Dev.<br>% |
| and the second |                | a second s |                | A second state of the s | The second s | <ul> <li>Destaurs and the second se</li></ul> | and the second second second second |                |
|                | FLUORIDE       | 3.061                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.372          | 14.903                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 13.06                                                                                                          | 14.37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5.0260                              | 0.5192         |
| 2              | CHLORIDE       | 4.024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.879          | 20.873                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15.85                                                                                                          | 20.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9.9484                              | -0.5157        |
| 3              | NITRITE        | 4.661                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.533          | 14.874                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 13.95                                                                                                          | 14.35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.1266                              | 3.1642         |
| 4              | SULFATE        | 5.381                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4.220          | 23.783                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 23.24                                                                                                          | 22.94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 19.7716                             | -1.1419        |
| 5              | BROMIDE        | 6.084                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.517          | 13.860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 13.86                                                                                                          | 13.37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 19.9246                             | -0.3770        |
| 6              | NITRATE        | 6.914                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.933          | 13.698                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 16.15                                                                                                          | 13.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.9273                              | -1.8165        |
| n.a.           | PHOSPHATE      | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.           | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | n.a.                                                                                                           | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                | n.a.           |
| Total:         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 17.454         | 101.990                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 96,10                                                                                                          | 98.37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.97  |
| Vial Number:         | 2                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 16:14        | Sample Weight:    | 1.0    |
|                      |                        |                   | ****** |

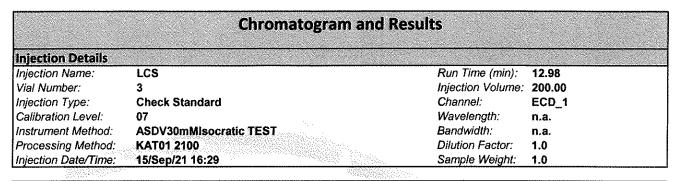


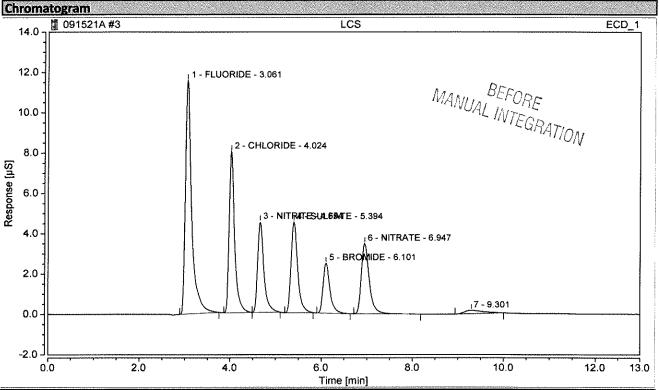
|      | gration Results                                                                                                 |                |               |        | <del></del>   | · · · · · · · · · · · · · · · · · · · |        |          |
|------|-----------------------------------------------------------------------------------------------------------------|----------------|---------------|--------|---------------|---------------------------------------|--------|----------|
| No.  | Peak Name                                                                                                       | Retention Time | Area          | Height | Relative Area | Relative Height                       | Amount | Amnt.Dev |
|      |                                                                                                                 | min            | <u>µS*min</u> | μS     | %             | %                                     | mg/L   | %        |
| n.a. | FLUORIDE                                                                                                        | n.a.           | n.a.          | n.a.   | n.a.          | n.a.                                  | n.a.   | n.a.     |
| 1    | CHLORIDE                                                                                                        | 4.021          | 0.007         | 0.047  | 27.81         | 34.47                                 | 0.1155 | n.a.     |
| 2    | NITRITE                                                                                                         | 4.944          | 0.005         | 0.018  | 17.25         | 13.22                                 | 0.0075 | n.a.     |
| 3    | SULFATE                                                                                                         | 5.401          | 0.008         | 0.040  | 29.56         | 28.80                                 | 0.0371 | n.a.     |
| n.a. | BROMIDE                                                                                                         | n.a.           | n.a.          | n.a.   | n.a.          | n.a.                                  | n.a.   | n.a.     |
| 4    | NITRATE                                                                                                         | 6.964          | 0.007         | 0.032  | 25.38         | 23.52                                 | 0.0377 | n.a.     |
| n.a. | PHOSPHATE                                                                                                       | n.a.           | <b>n.a.</b>   | n.a.   | n.a.          | n.a.                                  | n.a.   | n.a.     |
| Tota | la secondaria da secondaria |                | 0.027         | 0.138  | 100.00        | 100.00                                |        |          |

|                     | Chromatogram and Res   | sults             |        |
|---------------------|------------------------|-------------------|--------|
| Injection Details   |                        |                   |        |
| Injection Name:     | ССВ                    | Run Time (min):   | 12.97  |
| Vial Number:        | 2                      | Injection Volume: | 200.00 |
| Injection Type:     | Unknown                | Channel:          | ECD 1  |
| Calibration Level:  |                        | Wavelength:       | n.a.   |
| Instrument Method:  | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:  | KAT01 2100             | Dilution Factor:  | 1.0    |
| njection Date/Time: | 15/Sep/21 16:14        | Sample Weight:    | 1.0    |



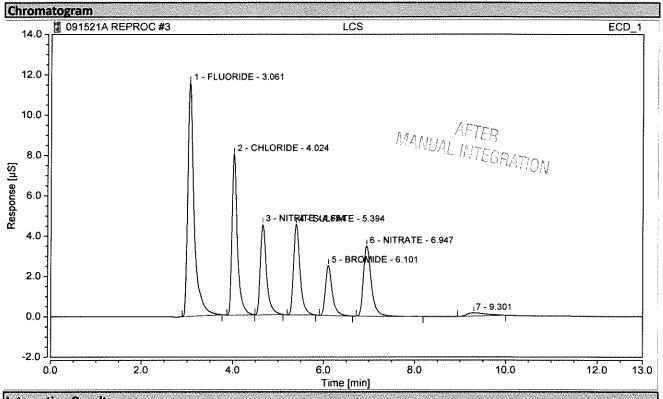
| No.   | Peak Name | Retention Time    | Area        | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------|-----------|-------------------|-------------|--------|---------------|-----------------|--------|-----------|
|       |           | min               | µS*min      | μS     | %             | %               | mg/L   | %         |
|       | FLUORIDE  | 3.084             | 0.007       | 0.018  | 20.26         | 11.36           | 0.0146 | n.a.      |
| 2     | CHLORIDE  | 4.021             | 0.007       | 0.047  | 21.91         | 29.98           | 0.1155 | n.a.      |
| 3     | NITRITE   | 4.944             | 0.005       | 0.018  | 13.60         | 11.50           | 0.0075 | n.a.      |
| 4     | SULFATE   | 5.401             | 0.008       | 0.040  | 23.30         | 25.05           | 0.0371 | n.a.      |
| 5     | BROMIDE   | 6.274             | 0.000       | 0.003  | 0.93          | 1.64            | 0.0037 | n.a.      |
| 6     | NITRATE   | 6.964             | 0.007       | 0.032  | 20.00         | 20.46           | 0.0377 | n.a.      |
| n.a.  | PHOSPHATE | n.a.              | <b>n.a.</b> | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total |           | 요즘 아이는 것을 알고 있었다. | 0.034       | 0.158  | 100.00        | 100.00          |        |           |





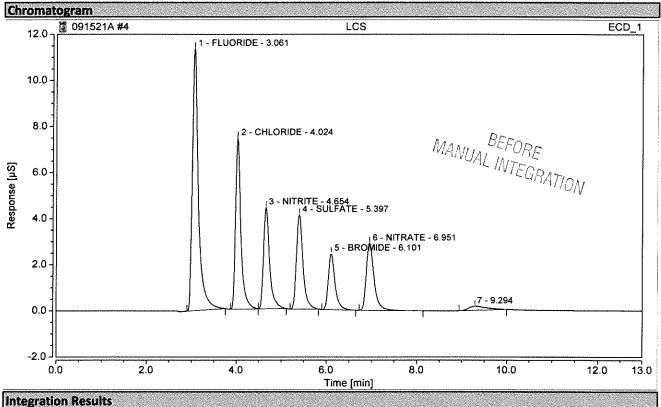
| No.   | Peak Name   | Retention Time                                                                                                  | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------|-------------|-----------------------------------------------------------------------------------------------------------------|--------|--------|---------------|-----------------|--------|-----------|
| INO.  | Feat Indine |                                                                                                                 |        |        |               |                 |        |           |
|       |             | <u> </u>                                                                                                        | µS*min | μS     | %             | %               | mg/L   | %         |
|       | FLUORIDE    | 3.061                                                                                                           | 1.851  | 11.583 | 32.70         | 33.38           | 3.9217 | 4.5788    |
| 2     | CHLORIDE    | 4.024                                                                                                           | 1.112  | 7.994  | 19.66         | 23.04           | 3.8994 | 3.9835    |
| 3     | NITRITE     | 4.654                                                                                                           | 0.713  | 4.493  | 12.61         | 12.95           | 1.1623 | 1.9547    |
| 4     | SULFATE     | 5.394                                                                                                           | 0.763  | 4.495  | 13.49         | 12.95           | 3.5761 | -4.6377   |
| 5     | BROMIDE     | 6.101                                                                                                           | 0.436  | 2.482  | 7.70          | 7.15            | 3.5688 | -4.8312   |
| 6     | NITRATE     | 6.947                                                                                                           | 0.704  | 3.483  | 12.44         | 10.04           | 0.9645 | 14.1381   |
| n.a.  | PHOSPHATE   | n.a.                                                                                                            | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total |             | en de service de la companya de la c | 5.580  | 34,531 | 98.59         | 99.52           |        |           |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | LCS                    | Run Time (min):   | 12.98  |
| Vial Number:         | 3                      | Injection Volume: | 200.00 |
| Injection Type:      | Check Standard         | Channel:          | ECD_1  |
| Calibration Level:   | 07                     | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 16:29        | Sample Weight:    | 1.0    |



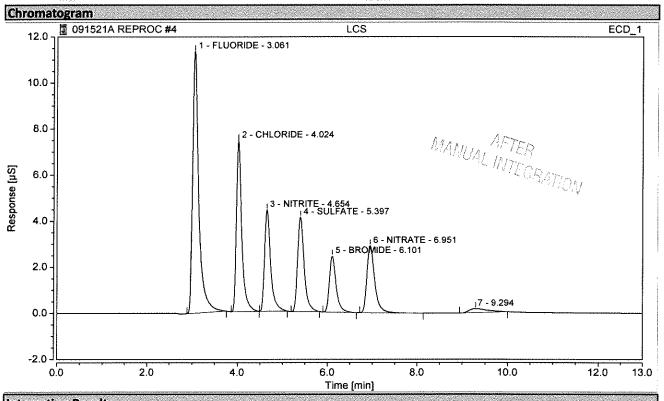
| Inter | ration Results                                                                                                  |                | and she was a set |        |               |                 |        |           |
|-------|-----------------------------------------------------------------------------------------------------------------|----------------|-------------------|--------|---------------|-----------------|--------|-----------|
| No.   | Peak Name                                                                                                       | Retention Time | Area              | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|       |                                                                                                                 | min            | µS*min            | μS     | %             | %               | mg/L   | %         |
| 1     | FLUORIDE                                                                                                        | 3.061          | 1.851             | 11.583 | 32.70         | 33.38           | 3.9217 | 4.5788    |
| 2     | CHLORIDE                                                                                                        | 4.024          | 1.112             | 7.994  | 19.66         | 23.04           | 3.8994 | 3.9835    |
| 3     | NITRITE                                                                                                         | 4.654          | 0.713             | 4.493  | 12.61         | 12.95           | 1.1623 | 1.9547    |
| 4     | SULFATE                                                                                                         | 5.394          | 0.763             | 4.495  | 13.49         | 12.95           | 3.5761 | -4.6377   |
| 5     | BROMIDE                                                                                                         | 6.101          | 0.436             | 2.482  | 7.70          | 7.15            | 3.5688 | -4.8312   |
| 6     | NITRATE                                                                                                         | 6.947          | 0.704             | 3.483  | 12.44         | 10.04           | 0.9645 | 14.1381   |
| n.a.  | PHOSPHATE                                                                                                       | n.a.           | n.a.              | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total | and the second secon |                | 5.580             | 34.531 | 98.59         | 99.52           |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | LCS                    | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 4                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 07                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 16:52        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



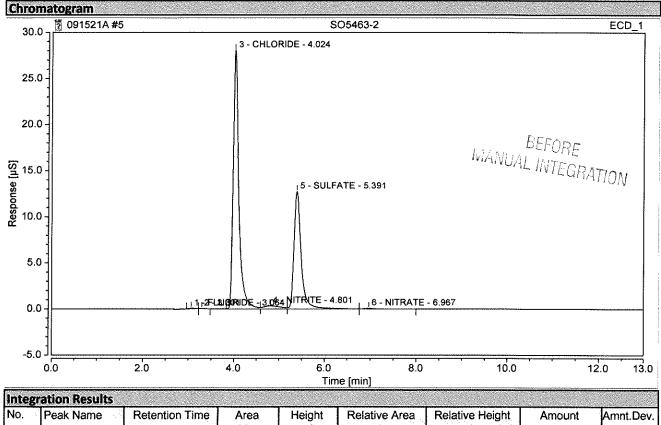
| · · · · · · · · · · · · · · · · · · · | ration Results | 1              |        | r      | ,             | ,               |        |           |
|---------------------------------------|----------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
| No.                                   | Peak Name      | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|                                       |                | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1                                     | FLUORIDE       | 3.061          | 1.799  | 11.369 | 33.77         | 34.64           | 3.8121 | 1.6568    |
| 2                                     | CHLORIDE       | 4.024          | 1.035  | 7.430  | 19.42         | 22.64           | 3.6326 | -3.1296   |
| 3 888                                 | NITRITE        | 4.654          | 0.701  | 4.405  | 13.17         | 13.42           | 1.1427 | 0.2344    |
| 4                                     | SULFATE        | 5.397          | 0.695  | 4.095  | 13.05         | 12.48           | 3.2570 | -13.1465  |
| 5                                     | BROMIDE        | 6.101          | 0.427  | 2.436  | 8.01          | 7.42            | 3.5026 | -6.5973   |
| 6                                     | NITRATE        | 6.951          | 0.586  | 2.907  | 11.01         | 8.86            | 0.8081 | -4.3684   |
| n.a.                                  | PHOSPHATE      | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:                                |                |                | 5.243  | 32.643 | 98.43         | 99.46           |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | LCS                    | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 4                      | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       | 07                     | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 16:52        | Sample Weight:    | 1.0    |  |  |  |  |



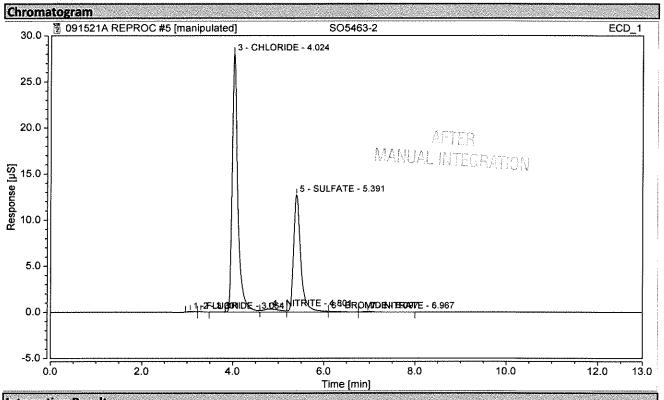
| Integ  | ration Results |                |               |        |                 |                 |        |          |
|--------|----------------|----------------|---------------|--------|-----------------|-----------------|--------|----------|
| No.    | Peak Name      | Retention Time | Area          | Height | Relative Area % | Relative Height | Amount | Amnt.Dev |
|        |                | <u> </u>       | <u>µS*min</u> | μS     |                 | %               | mg/L   | %        |
| 1 336  | FLUORIDE       | 3.061          | 1.799         | 11.369 | 33.77           | 34.64           | 3.8121 | 1.6568   |
| 2 2022 | CHLORIDE       | 4.024          | 1.035         | 7.430  | 19.42           | 22.64           | 3.6326 | -3.1296  |
| 3 300  | NITRITE        | 4.654          | 0.701         | 4.405  | 13.17           | 13.42           | 1.1427 | 0.2344   |
| 4      | SULFATE        | 5.397          | 0.695         | 4.095  | 13.05           | 12.48           | 3.2570 | -13.1465 |
| 5 88   | BROMIDE        | 6.101          | 0.427         | 2.436  | 8.01            | 7.42            | 3.5026 | -6.5973  |
| 6      | NITRATE        | 6.951          | 0.586         | 2.907  | 11.01           | 8.86            | 0.8081 | -4.3684  |
| n.a.   | PHOSPHATE      | n.a.           | n.a.          | n.a.   | n.a.            | n.a.            | n.a.   | n.a.     |
| Total  |                |                | 5.243         | 32.643 | 98.43           | 99.46           |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5463-2               | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 5                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 17:06        | Sample Weight:    | 1.0    |  |  |  |



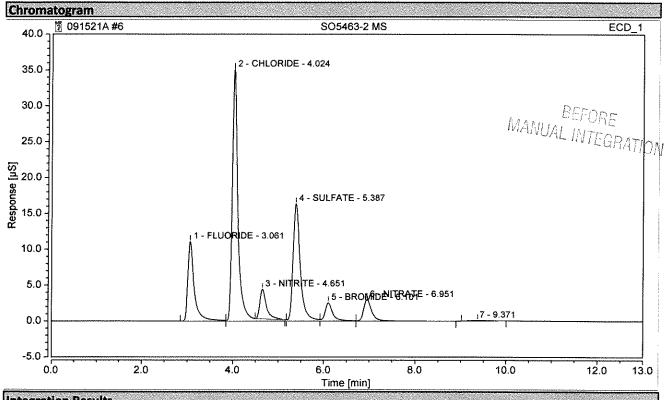
| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|---------|-----------|
|       |           | min            | µS*min | l µS   | %             | %               | mg/L    | %         |
| 1     | FLUORIDE  | 3.064          | 0.007  | 0.048  | 0.11          | 0.12            | 0.0309  | n.a.      |
| 3     | CHLORIDE  | 4.024          | 4.050  | 28.063 | 61.59         | 67.98           | 27.9158 | n.a.      |
| 4 🚳   | NITRITE   | 4.801          | 0.140  | 0.339  | 2.13          | 0.82            | 0.4564  | n.a.      |
| 5     | SULFATE   | 5.391          | 2.357  | 12.743 | 35.85         | 30.87           | 22.0895 | n.a.      |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| 6     | NITRATE   | 6.967          | 0.019  | 0.072  | 0.29          | 0.17            | 0.1081  | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total |           |                | 6.574  | 41.265 | 99,97         | 99.95           |         |           |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5463-2               | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 5                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 17:06        | Sample Weight:    | 1.0    |  |  |  |



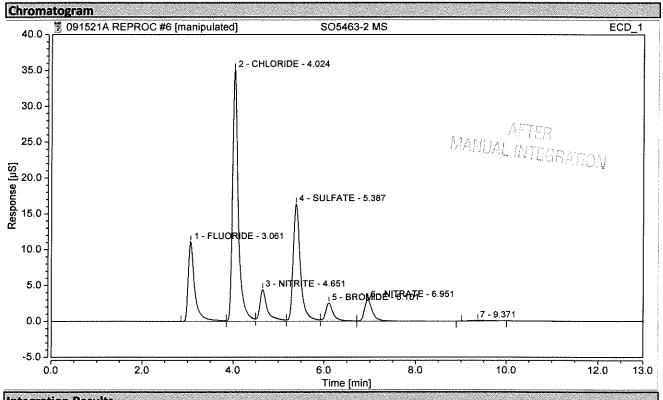
| Integ  | ration Results |                       |                |              |                    |                        |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|------------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height .<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1888   | FLUORIDE       | 3.064                 | 0.007          | 0.048        | 0.11               | 0.12                   | 0.0309         | n.a.           |
| 3 200  | CHLORIDE       | 4.024                 | 4.050          | 28.063       | 61.59              | 67.84                  | 27.9158        | n.a.           |
| 4      | NITRITE        | 4.801                 | 0.140          | 0.339        | 2.13               | 0.82                   | 0.4564         | n.a.           |
| 5      | SULFATE        | 5.391                 | 2.332          | 12.743       | 35.47              | 30.80                  | 21.8545        | n.a.           |
| 6      | BROMIDE        | 6.097                 | 0.025          | 0.086        | 0.38               | 0.21                   | 0.2475         | л.а.           |
| 7      | NITRATE        | 6.967                 | 0.019          | 0.072        | 0.29               | 0.17                   | 0.1081         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                   | n.a.           | n.a.           |
| Total: |                |                       | 6.574          | 41.351       | 99.97              | 99.95                  |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
|                          |                        |                   |        |  |  |  |
| Vial Number:             | 6                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 17:20        | Sample Weight:    | 1.0    |  |  |  |

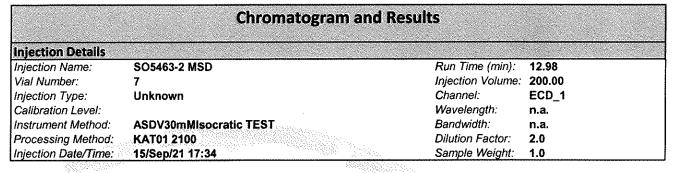


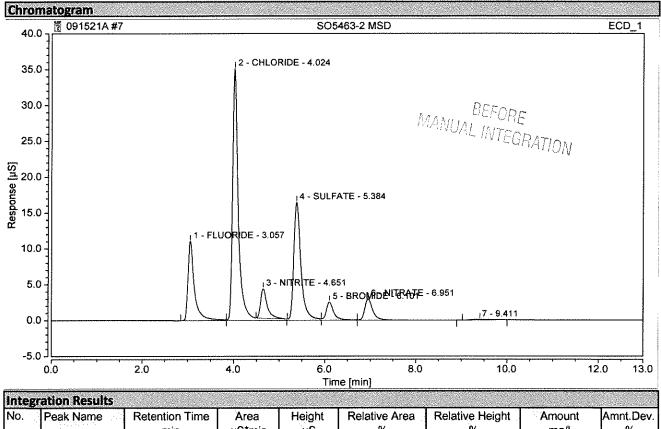
| No.        | Peak Name        | Retention Time                        | Area   | Height      | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|------------|------------------|---------------------------------------|--------|-------------|---------------|-----------------|---------|-----------|
| 140.       | IF CAN INGING    |                                       | +      | i leigint : | neialive Alea | I 15 Martin     | Amount  |           |
|            |                  | min                                   | µS*min | μS          | %             | %               | mg/L    | %         |
| 1          | FLUORIDE         | 3.061                                 | 1.851  | 11.115      | 15.37         | 15.36           | 7.8434  | n.a.      |
| <b>2</b> 👘 | CHLORIDE         | 4.024                                 | 5.287  | 35.110      | 43.89         | 48.52           | 36.3861 | n.a.      |
| 3 883      | NITRITE          | 4.651                                 | 0.700  | 4.132       | 5.81          | 5.71            | 2.2795  | n.a.      |
| 4          | SULFATE          | 5.387                                 | 3.028  | 16.372      | 25.13         | 22.62           | 28.3687 | n.a.      |
| 5 922      | BROMIDE          | 6.101                                 | 0.507  | 2.564       | 4.21          | 3.54            | 7.3708  | n.a.      |
| 6          | NITRATE          | 6.951                                 | 0.632  | 2.988       | 5.25          | 4.13            | 1.7385  | n.a.      |
| n.a.       | PHOSPHATE        | n.a.                                  | n.a.   | n.a.        | n.a.          | n.a.            | n.a.    | n.a.      |
| Total      | na desenda a com | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 12.004 | 72.282      | 99.66         | 99.88           |         |           |

| Chromatogram and Re    | sults                                                               |                                                                                                                            |
|------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|                        |                                                                     |                                                                                                                            |
| SO5463-2 MS            | Run Time (min):                                                     | 12.99                                                                                                                      |
| 6                      | Injection Volume:                                                   | 200.00                                                                                                                     |
| Unknown                | Channel:                                                            | ECD_1                                                                                                                      |
|                        | Wavelength:                                                         | n.a.                                                                                                                       |
| ASDV30mMIsocratic TEST | Bandwidth:                                                          | n.a.                                                                                                                       |
| KAT01 2100             | Dilution Factor:                                                    | 2.0                                                                                                                        |
| 15/Sep/21 17:20        | Sample Weight:                                                      | 1.0                                                                                                                        |
|                        | SO5463-2 MS<br>6<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | 6 Injection Volume:<br>Unknown Channel:<br>Wavelength:<br>ASDV30mMIsocratic TEST Bandwidth:<br>KAT01 2100 Dilution Factor: |



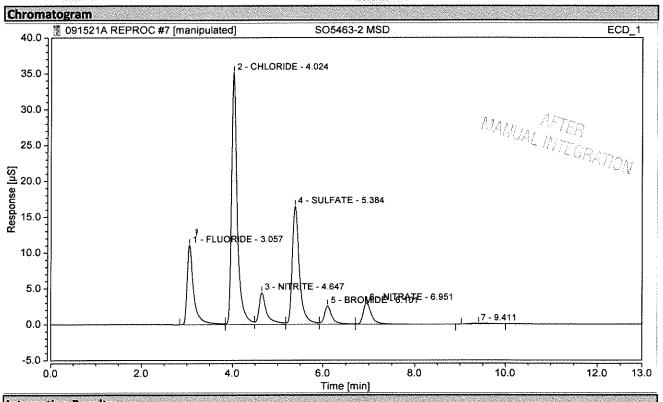
| unca: | ration Results              |                |        |        |               |                 |         |           |
|-------|-----------------------------|----------------|--------|--------|---------------|-----------------|---------|-----------|
| No.   | Peak Name                   | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
| :     |                             | min            | µS*min | μS     | %             | %               | mg/L    | %         |
| 1     | FLUORIDE                    | 3.061          | 1.851  | 11.115 | 15.37         | 15.29           | 7.8434  | n.a.      |
| 2     | CHLORIDE                    | 4.024          | 5.102  | 35.110 | 42.36         | 48.31           | 35.1211 | n.a.      |
| 3 38  | NITRITE                     | 4.651          | 0.884  | 4.442  | 7.34          | 6.11            | 2.8814  | n.a.      |
| 4     | SULFATE                     | 5.387          | 3.028  | 16.372 | 25.13         | 22.53           | 28.3687 | n.a.      |
| 5     | BROMIDE                     | 6.101          | 0.507  | 2.564  | 4.21          | 3.53            | 7.3708  | n.a.      |
| 6     | NITRATE                     | 6.951          | 0.632  | 2.988  | 5.25          | 4.11            | 1.7385  | n.a.      |
| n.a.  | PHOSPHATE                   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total | ne tujutu ti teri inte<br>* |                | 12.004 | 72.591 | 99.66         | 99.89           |         |           |





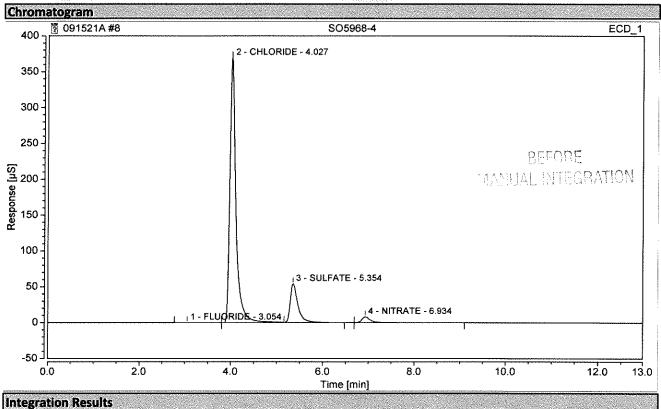
| No.     | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>µS | Relative Area % | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|---------|-----------|-----------------------|----------------|--------------|-----------------|----------------------|----------------|----------------|
| 1 8883  | FLUORIDE  | 3.057                 | 1,849          | 11.083       | 15.32           | 15.29                | 7.8355         | n.a.           |
| 2       | CHLORIDE  | 4.024                 | 5.290          | 35,163       | 43.84           | 48.51                | 36.4116        | n.a.           |
| 3 3.493 | NITRITE   | 4.651                 | 0.701          | 4.134        | 5.81            | 5.70                 | 2.2845         | n.a.           |
| 4       | SULFATE   | 5.384                 | 3.055          | 16.488       | 25.31           | 22.75                | 28.6233        | n.a.           |
| 5       | BROMIDE   | 6.101                 | 0.503          | 2.562        | 4.17            | 3.53                 | 7.3652         | n.a.           |
| 6       | NITRATE   | 6.951                 | 0.632          | 2.982        | 5.23            | 4.11                 | 1.7367         | n.a.           |
| n.a. 😳  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.            | n.a.                 | n.a.           | n.a.           |
| Total:  |           |                       | 12.030         | 72.412       | 99.69           | 99.90                |                |                |

|                      | Chromatogram and Res   | sults             |          |
|----------------------|------------------------|-------------------|----------|
| Injection Details    |                        |                   |          |
| Injection Name:      | SO5463-2 MSD           | Run Time (min):   | 12.98    |
| Vial Number:         | 7                      | Injection Volume: | 200.00   |
| Injection Type:      | Unknown                | Channel:          | ECD_1    |
| Calibration Level:   |                        | Wavelength:       | <br>n.a. |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.     |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 2.0      |
| Injection Date/Time: | 15/Sep/21 17:34        | Sample Weight:    | 1.0      |



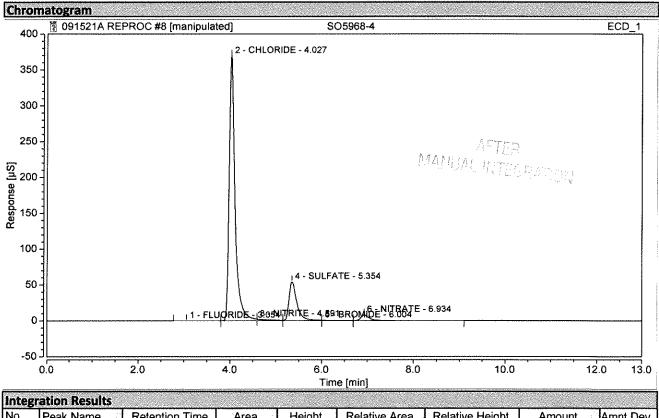
| Inter |                                       |                | · · ·  |        |               |                 |         | 1. (m.    |
|-------|---------------------------------------|----------------|--------|--------|---------------|-----------------|---------|-----------|
| No.   | Peak Name                             | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|       |                                       | min            | µS*min | μS     | %             | %               | mg/L    | %         |
| 1     | FLUORIDE                              | 3.057          | 1.849  | 11.083 | 15.32         | 15.23           | 7.8355  | n.a.      |
| 2     | CHLORIDE                              | 4.024          | 5.108  | 35.163 | 42.33         | 48.31           | 35.1657 | n.a.      |
| 3     | NITRITE                               | 4.647          | 0.883  | 4.442  | 7.32          | 6.10            | 2.8772  | n.a.      |
| 4     | SULFATE                               | 5.384          | 3.055  | 16.488 | 25.31         | 22.65           | 28.6233 | n.a.      |
| 5     | BROMIDE                               | 6.101          | 0.503  | 2.562  | 4.17          | 3.52            | 7.3652  | n.a.      |
| 6     | NITRATE                               | 6.951          | 0.632  | 2.982  | 5.23          | 4.10            | 1.7367  | n.a.      |
| n.a.  | PHOSPHATE                             | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total | <ul> <li>More book a state</li> </ul> |                | 12.030 | 72.719 | 99.69         | 99.90           | _       |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5968-4               | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 8                      | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 17:49        | Sample Weight:    | 1.0    |  |  |  |  |



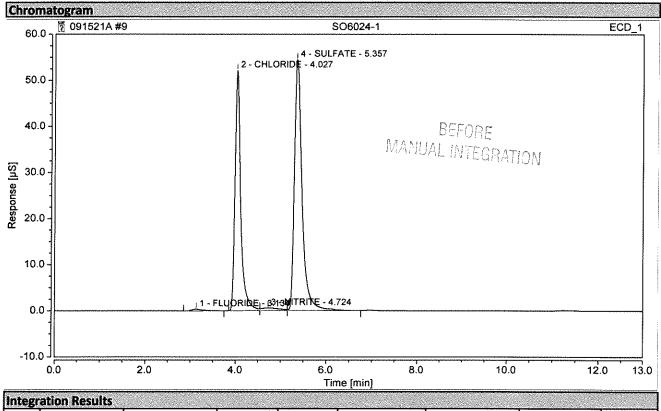
| No.    | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev |
|--------|-----------|----------------|--------|---------|---------------|-----------------|----------|----------|
|        |           | min            | µS*min | μS      | %             | %               | mg/L     | %        |
| 1 3333 | FLUORIDE  | 3.054          | 0.025  | 0.068   | 0.04          | 0.02            | 0.0534   | n.a.     |
| 2      | CHLORIDE  | 4.027          | 56.198 | 369.361 | 82.21         | 85.67           | 192.5296 | n.a.     |
| n.a.   | NITRITE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| 3.28   | SULFATE   | 5.354          | 10.392 | 53.687  | 15.20         | 12.45           | 48.6850  | n.a.     |
| n.a.   | BROMIDE   | п.а.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| 4      | NITRATE   | 6.934          | 1.744  | 8.035   | 2.55          | 1.86            | 2.3468   | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| Total: |           |                | 68.358 | 431.151 | 100.00        | 100.00          |          | 1        |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO5968-4               | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 8                      | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 17:49        | Sample Weight:    | 1.0    |  |  |  |  |  |



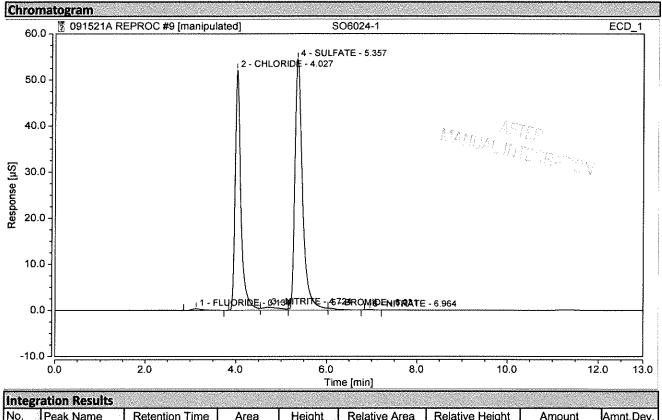
| No.    | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev |
|--------|-----------|----------------|--------|---------|---------------|-----------------|----------|----------|
|        |           | min            | µS*min | μS      | %             | %               | mg/L     | %        |
|        | FLUORIDE  | 3.054          | 0.025  | 0.068   | 0.04          | 0.02            | 0.0534   | n.a.     |
| 2      | CHLORIDE  | 4.027          | 55.213 | 369.361 | 80.77         | 85.09           | 189.1563 | n.a.     |
| 3.8    | NITRITE   | 4.591          | 0.594  | 2.109   | 0.87          | 0.49            | 0.9674   | n.a.     |
| 4      | SULFATE   | 5.354          | 10.658 | 54.087  | 15.59         | 12.46           | 49.9308  | n.a.     |
| 5      | BROMIDE   | 6.004          | 0.125  | 0.437   | 0.18          | 0.10            | 0.6275   | n.a.     |
| 6      | NITRATE   | 6.934          | 1.744  | 8.035   | 2.55          | 1.85            | 2.3468   | n.a.     |
| n.a. 👌 | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| Total  | 1         |                | 68.358 | 434.096 | 100.00        | 100.00          |          |          |

| Chromatogram and Results |                                                                  |                                                                                                                                                                                           |  |  |  |  |  |  |
|--------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
|                          |                                                                  |                                                                                                                                                                                           |  |  |  |  |  |  |
| SO6024-1                 | Run Time (min):                                                  | 12.99                                                                                                                                                                                     |  |  |  |  |  |  |
| 9                        | Injection Volume:                                                | 200.00                                                                                                                                                                                    |  |  |  |  |  |  |
| Unknown                  | Channel:                                                         | ECD_1                                                                                                                                                                                     |  |  |  |  |  |  |
|                          | Wavelength:                                                      | n.a.                                                                                                                                                                                      |  |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                       | n.a.                                                                                                                                                                                      |  |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                 | 1.0                                                                                                                                                                                       |  |  |  |  |  |  |
| 15/Sep/21 18:03          | Sample Weight:                                                   | 1.0                                                                                                                                                                                       |  |  |  |  |  |  |
|                          | SO6024-1<br>9<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | SO6024-1       Run Time (min):         9       Injection Volume:         Unknown       Channel:         ASDV30mMlsocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor: |  |  |  |  |  |  |



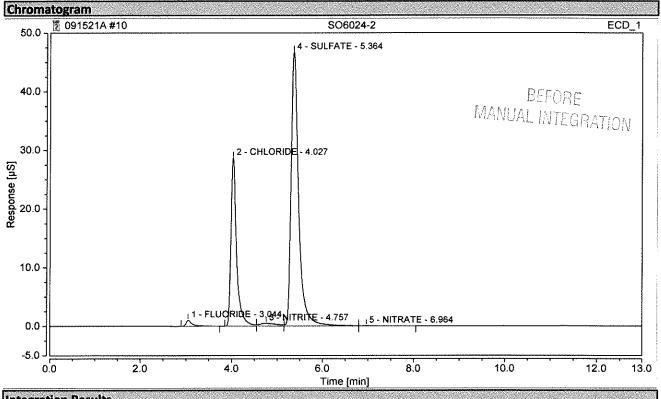
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L      | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|---------------------|----------------|
| 1.383 | FLUORIDE  | 3.134                 | 0.091          | 0.361        | 0.49               | 0.34              | 0.1938              | n.a.           |
| 2     | CHLORIDE  | 4.027                 | 7.660          | 52.160       | 40.82              | 48.47             | 26.3194             | n.a.           |
| 3     | NITRITE   | 4.724                 | 0.271          | 0.611        | 1.44               | 0.57              | 0.4413              | n.a.           |
| 4     | SULFATE   | 5.357                 | 10.741         | 54.486       | 57.25              | 50.63             | 50.3220             | n.a.           |
| n.a.  | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.                | n.a.           |
| n.a.  | NITRATE   | n.a.                  | n.a.           | 🖄 n.a. 🐼     | n.a.               | n.a.              | مَنْ <b>n.a</b> . ک | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.                | n.a.           |
| Total |           |                       | 18.763         | 107.620      | 100.00             | 100.00            |                     |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-1               | Run Time (min):   | 12.99  |
| Vial Number:         | 9                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:03        | Sample Weight:    | 1.0    |



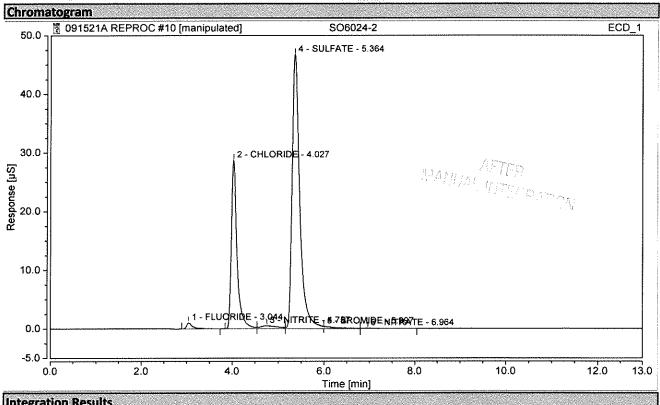
| No.   | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>uS | Relative Area<br>% | Relative Height % | Amount<br>ma/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.134                 | 0.091          | 0.361        | 0.49               | 0.33              | 0.1938         | n.a.           |
| 2     | CHLORIDE  | 4.027                 | 7.660          | 52.160       | 40.79              | 48.26             | 26.3194        | n.a.           |
| 3 🕸   | NITRITE   | 4.724                 | 0.271          | 0,611        | 1.44               | 0.57              | 0.4413         | n.a.           |
| 4     | SULFATE   | 5.357                 | 10.650         | 54.486       | 56.71              | 50.41             | 49.8942        | n.a.           |
| 5     | BROMIDE   | 6.031                 | 0.091          | 0.383        | 0.49               | 0.35              | 0.5508         | n.a.           |
| 6     | NITRATE   | 6.964                 | 0.015          | 0.090        | 0.08               | 0.08              | 0.0489         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 18.778         | 108.093      | 100.00             | 100.00            |                |                |

| Chromatogram and Re    | sults                                                             |                                                                                                                    |
|------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|                        |                                                                   |                                                                                                                    |
| SO6024-2               | Run Time (min):                                                   | 12.99                                                                                                              |
| 10                     | Injection Volume:                                                 | 200.00                                                                                                             |
| Unknown                | Channel:                                                          | ECD_1                                                                                                              |
|                        | Wavelength:                                                       | n.a.                                                                                                               |
| ASDV30mMisocratic TEST | Bandwidth:                                                        | n.a.                                                                                                               |
| KAT01 2100             | Dilution Factor:                                                  | 1.0                                                                                                                |
| 15/Sep/21 18:17        | Sample Weight:                                                    | 1.0                                                                                                                |
|                        | SO6024-2<br>10<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | 10Injection Volume:UnknownChannel:Wavelength:Wavelength:ASDV30mMIsocratic TESTBandwidth:KAT01 2100Dilution Factor: |



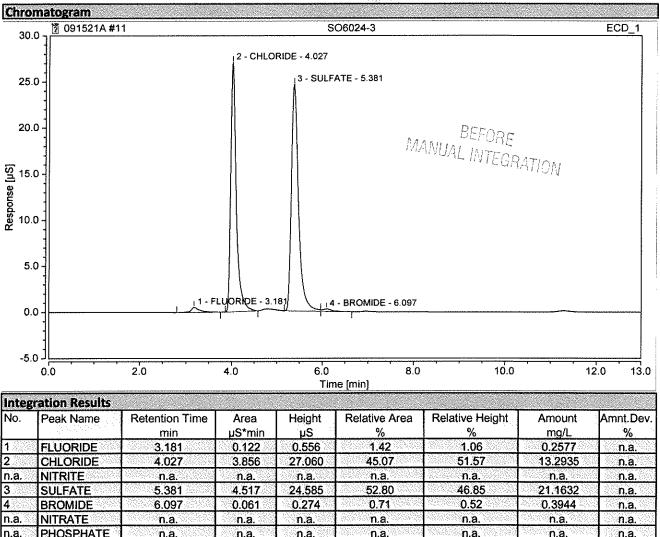
| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|---------|-----------|
|       |           | min            | µS*min | μŜ     | %             | %               | mg/L    | %         |
| 1     | FLUORIDE  | 3.044          | 0.163  | 1.036  | 1.19          | 1.35            | 0.3453  | n.a.      |
| 2     | CHLORIDE  | 4.027          | 4.167  | 28.715 | 30.39         | 37.29           | 14.3604 | n.a.      |
| 3 🕬   | NITRITE   | 4.757          | 0.203  | 0.468  | 1.48          | 0.61            | 0.3301  | n.a.      |
| 4     | SULFATE   | 5.364          | 9.159  | 46.731 | 66.80         | 60.68           | 42.9123 | n.a.      |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| 5     | NITRATE   | 6.964          | 0.020  | 0.058  | 0.14          | 0.08            | 0.0546  | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total |           |                | 13.712 | 77.008 | 100.00        | 100.00          |         |           |

|                      | Chromatogram and R     | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-2               | Run Time (min):   | 12.99  |
| Vial Number:         | 10                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:17        | Sample Weight:    | 1.0    |



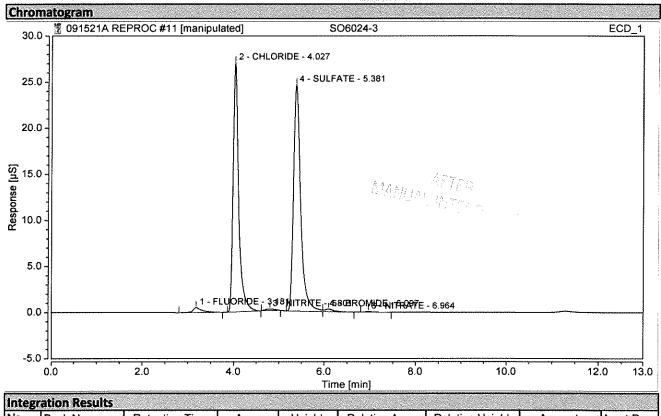
| No.    | Peak Name | Retention Time                                                                                                  | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|--------|-----------|-----------------------------------------------------------------------------------------------------------------|--------|--------|---------------|-----------------|---------|-----------|
|        |           | min                                                                                                             | µS*min | μS     | %             | %               | mg/L    | %         |
| 1.888  | FLUORIDE  | 3.044                                                                                                           | 0.163  | 1.036  | 1.19          | 1.34            | 0.3453  | n.a.      |
| 2      | CHLORIDE  | 4.027                                                                                                           | 4.167  | 28.715 | 30.39         | 37.11           | 14.3604 | n.a.      |
| 3 330  | NITRITE   | 4.757                                                                                                           | 0.203  | 0.468  | 1.48          | 0.61            | 0.3301  | n.a.      |
| 4      | SULFATE   | 5.364                                                                                                           | 9.055  | 46.731 | 66.04         | 60.39           | 42.4231 | n.a.      |
| 5      | BROMIDE   | 5.997                                                                                                           | 0.104  | 0.370  | 0.76          | 0.48            | 0.5323  | n.a.      |
| 6      | NITRATE   | 6.964                                                                                                           | 0.020  | 0.058  | 0.14          | 0.07            | 0.0546  | n.a.      |
| n.a.   | PHOSPHATE | n.a.                                                                                                            | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total: |           | 6 et de la compansión de l | 13.712 | 77.379 | 100.00        | 100.00          |         | 1         |

|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-3               | Run Time (min):   | 12.98  |
| Vial Number:         | 11                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:32        | Sample Weight:    | 1.0    |



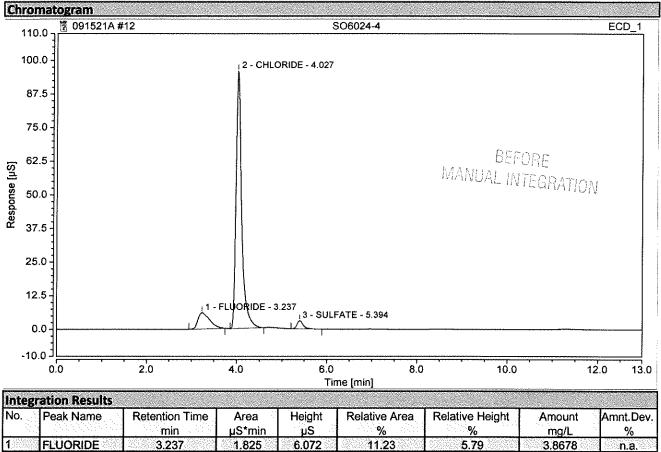
| Total: | addinesendes de filo |       | 8.555 | 52.476 | 100.00 | 100.00 |         |             |
|--------|----------------------|-------|-------|--------|--------|--------|---------|-------------|
| n.a.   | PHOSPHATE            | n.a.  | n.a.  | n.a.   | n.a.   | n.a.   | n.a.    | n.a.        |
| n.a.   | NITRATE              | n.a.  | n.a.  | n.a.   | n.a.   | n.a.   | n.a.    | <u>ା.a.</u> |
| 4      | BROMIDE              | 6.097 | 0.061 | 0.274  | 0.71   | 0.52   | 0.3944  | n.a.        |
| 3      | SULFATE              | 5.381 | 4.517 | 24.585 | 52.80  | 46.85  | 21.1632 | n.a.        |
| n.a.   | NITRITE              | n.a.  | n.a.  | n.a.   | n.a.   | n.a.   | n.a.    | n.a.        |
| 2      | CHLORIDE             | 4.027 | 3.856 | 27.060 | 45.07  | 51.57  | 13.2935 | n.a.        |
| 1.888  | FLUORIDE             | 3.181 | 0.122 | 0.556  | 1.42   | 1.06   | 0.2577  | ്.n.a.      |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-3               | Run Time (min):   | 12.98  |
| Vial Number:         | 11                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:32        | Sample Weight:    | 1.0    |



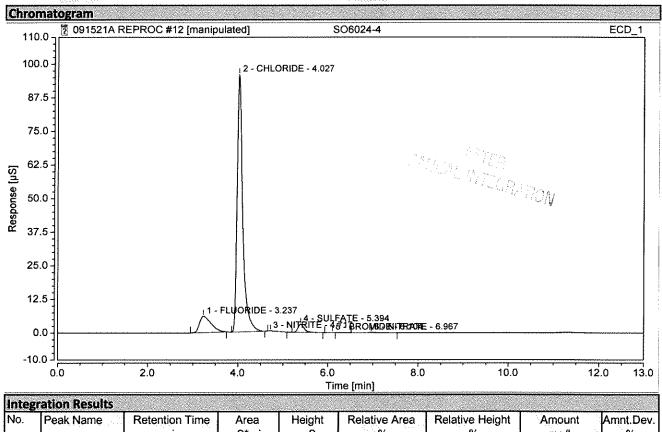
| No.   | Peak Name                                                                                                           | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|---------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|--------------|---------------|-------------------|----------------|----------------|
| 1.88  | FLUORIDE                                                                                                            | 3.181                 | 0.122          | 0.556        | 1.41          | 1.06              | 0.2577         | n.a.           |
| 2     | CHLORIDE                                                                                                            | 4.027                 | 3.855          | 27.059       | 44.78         | 51.34             | 13.2912        | n.a.           |
| 3     | NITRITE                                                                                                             | 4.801                 | 0.043          | 0.171        | 0.49          | 0.32              | 0.0694         | n.a.           |
| 4     | SULFATE                                                                                                             | 5.381                 | 4.517          | 24.585       | 52.47         | 46.65             | 21.1632        | n.a.           |
| 5     | BROMIDE                                                                                                             | 6.097                 | 0.061          | 0.274        | 0.71          | 0.52              | 0.3944         | n.a.           |
| 6     | NITRATE                                                                                                             | 6.964                 | 0.011          | 0.060        | 0.13          | 0.11              | 0.0439         | п.а.           |
| n.a.  | PHOSPHATE                                                                                                           | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.              | n.a.           | n.a.           |
| Total | andra andra angla an<br>T |                       | 8.609          | 52.707       | 100,00        | 100.00            |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-4               | Run Time (min):   | 12.99  |
| Vial Number:         | 12                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD 1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:46        | Sample Weight:    | 1.0    |

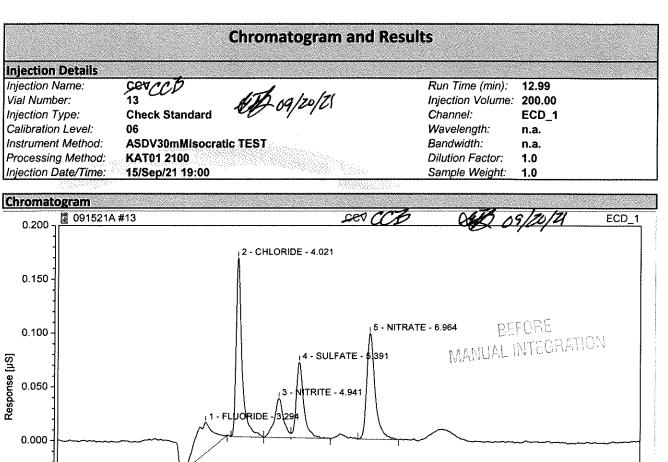


|        |                       | min   | µS*min | μS      | %      | %      | mg/L    | %    |
|--------|-----------------------|-------|--------|---------|--------|--------|---------|------|
| 1      | FLUORIDE              | 3.237 | 1.825  | 6.072   | 11.23  | 5.79   | 3.8678  | n.a. |
| 2      | CHLORIDE              | 4.027 | 13.933 | 95.783  | 85.70  | 91.33  | 47.7998 | n.a. |
| n.a.   | NITRITE               | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | n.a. |
| 3      | SULFATE               | 5.394 | 0.500  | 3.025   | 3.07   | 2.88   | 2.3411  | n.a. |
| n.a.   | BROMIDE               | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | n.a. |
| n.a.   | NITRATE               | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | n.a. |
| n.a. 😒 | PHOSPHATE             | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | n.a. |
| Total: | n (pin na king pinan. |       | 16.258 | 104.879 | 100.00 | 100.00 |         |      |

|                      | Chromatogram and       | Results           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6024-4               | Run Time (min):   | 12.99  |
| Vial Number:         | 12                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 18:46        | Sample Weight:    | 1.0    |



| No.     | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|---------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 3333  | FLUORIDE  | 3.237                 | 1.825          | 6.072        | 11.19              | 5.78              | 3.8678         | n.a.           |
| 2 0.000 | CHLORIDE  | 4.027                 | 13.933         | 95.783       | 85.44              | 91.12             | 47.7998        | n.a.           |
| 3 388   | NITRITE   | 4.717                 | 0.023          | 0.077        | 0.14               | 0.07              | 0.0373         | n.a.           |
| 4       | SULFATE   | 5.394                 | 0.500          | 3.025        | 3.06               | 2.88              | 2.3411         | n.a.           |
| 5       | BROMIDE   | 6.104                 | 0.003          | 0.035        | 0.02               | 0.03              | 0.0509         | n.a.           |
| 6       | NITRATE   | 6.967                 | 0.024          | 0.126        | 0.15               | 0.12              | 0.0611         | n.a.           |
| n.a.    | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total:  |           |                       | 16.308         | 105.117      | 100,00             | 100.00            |                |                |



| Integ  | ration Results |                       |                |              |                    |                   |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1338   | FLUORIDE       | 3.294                 | 0.014          | 0.029        | 16.46              | 7.16              | 0.0288         | -99.4230       |
| 2      | CHLORIDE       | 4.021                 | 0.026          | 0.166        | 31.08              | 41.53             | 0.1780         | -98.2200       |
| 3 333  | NITRITE        | 4.941                 | 0.009          | 0.037        | 10.50              | 9.12              | 0.0142         | -99.6462       |
| 4      | SULFATE        | 5.391                 | 0.014          | 0.071        | 16.34              | 17.62             | 0.0633         | -99.6834       |
| n.a.   | BROMIDE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| 5 888  | NITRATE        | 6.964                 | 0.021          | 0.098        | 25.62              | 24.57             | 0.0569         | -98.5781       |
| n.a. 🕅 | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  | *              |                       | 0.083          | 0.401        | 100.00             | 100.00            |                |                |

6.0

Time [min]

8.0

10.0

12.0

13.0

Response [µS]

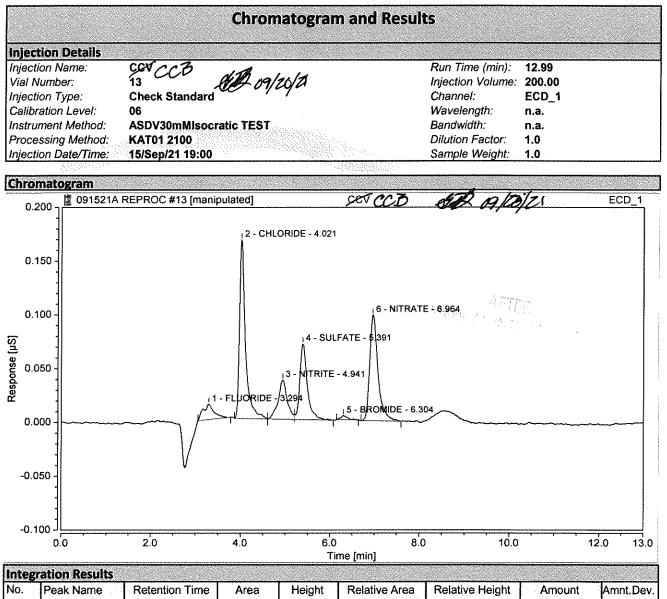
-0.050

-0.100

0.0

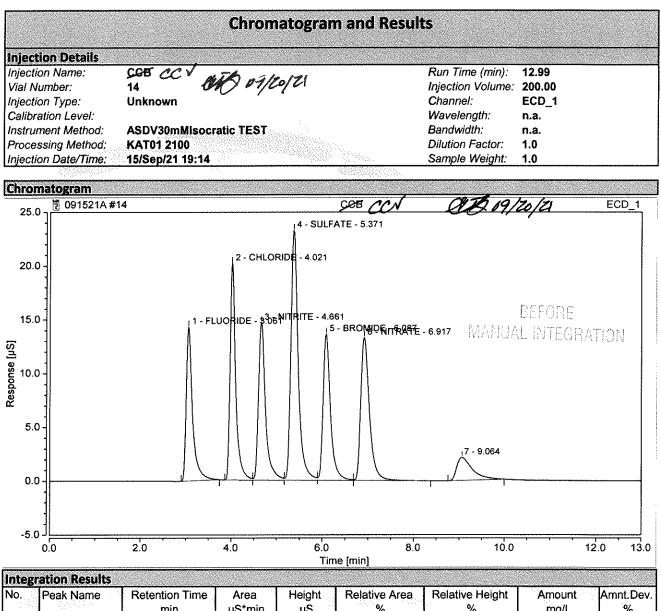
2.0

4.0

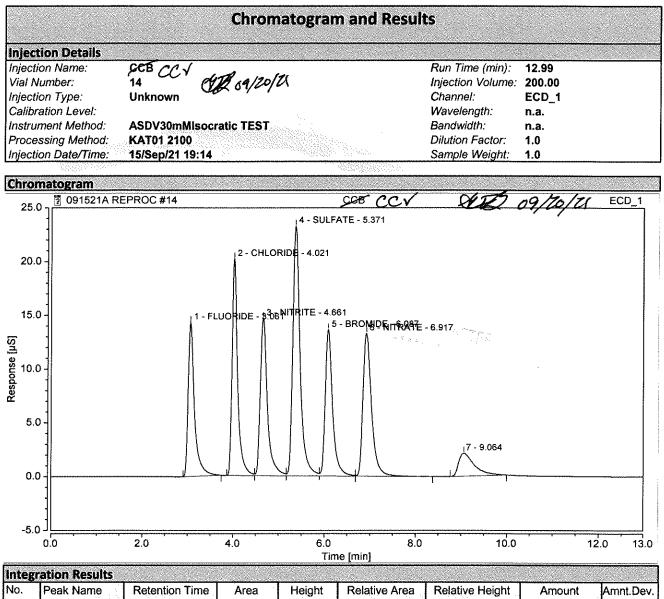


| No.    | Peak Name                                   | Retention Time<br>min | Area<br>µS*min | Height<br>uS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|---------------------------------------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1.838  | FLUORIDE                                    | 3.294                 | 0.004          | 0.015        | 5.48               | 3.72              | 0.0086         | -99.8288       |
| 2 1000 | CHLORIDE                                    | 4.021                 | 0.026          | 0.166        | 34.86              | 42.63             | 0.1780         | -98.2200       |
| 3 😒    | NITRITE                                     | 4.941                 | 0.009          | 0.037        | 11.78              | 9.36              | 0.0142         | -99.6462       |
| 4 333  | SULFATE                                     | 5.391                 | 0.014          | 0.071        | 18.32              | 18.08             | 0.0633         | -99.6834       |
| 5      | BROMIDE                                     | 6.304                 | 0.001          | 0.004        | 0.82               | 0.98              | 0.0055         | -99.9725       |
| 6 833  | NITRATE                                     | 6.964                 | 0.021          | 0.098        | 28.74              | 25.22             | 0.0569         | -98.5781       |
| n.a. 🔅 | PHOSPHATE                                   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  | angen en e |                       | 0.074          | 0.390        | 100.00             | 100.00            |                |                |

Default(1)/Integration

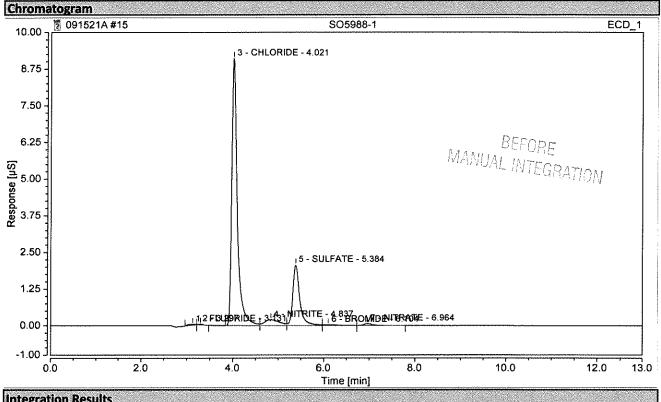


| No.    | Peak Name                                        | Retention Time<br>min | Area<br>⊔S*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>ma/L | Amnt.Dev.<br>% |
|--------|--------------------------------------------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1.888  | FLUORIDE                                         | 3.061                 | 2.334          | 14.333       | 12.58              | 14.13             | 4.9454         | n.a.           |
| 2      | CHLORIDE                                         | 4.021                 | 2.892          | 20.156       | 15.59              | 19.87             | 9.9933         | n.a.           |
| 3      | NITRITE                                          | 4.661                 | 2.643          | 14.643       | 14.24              | 14.44             | 4.3057         | n.a.           |
| 4      | SULFATE                                          | 5.371                 | 4.321          | 23.251       | 23.29              | 22.93             | 20.2427        | n.a.           |
| 5      | BROMIDE                                          | 6.087                 | 2.588          | 13.602       | 13.95              | 13.41             | 19.5536        | n.a.           |
| 6      | NITRATE                                          | 6.917                 | 2.919          | 13.291       | 15.73              | 13.11             | 3.9091         | n.a.           |
| n.a.   | PHOSPHATE                                        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: | a Maria a su |                       | 17.696         | 99.275       | 95,38              | 97.89             |                |                |



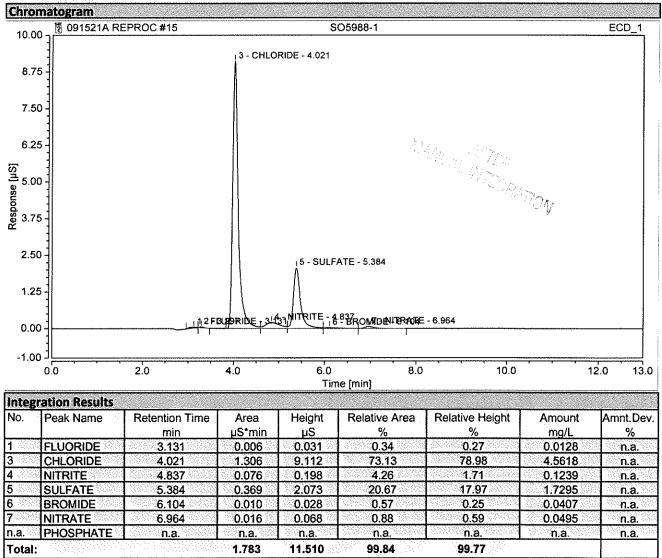
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.061                 | 2.334          | 14.333       | 12.58              | 14.13             | 4.9454         | n.a.           |
| 2     | CHLORIDE  | 4.021                 | 2.892          | 20.156       | 15.59              | 19.87             | 9.9933         | n.a.           |
| 3.88  | NITRITE   | 4.661                 | 2.643          | 14.643       | 14.24              | 14.44             | 4.3057         | n.a.           |
| 433   | SULFATE   | 5.371                 | 4.321          | 23.251       | 23.29              | 22.93             | 20.2427        | n.a.           |
| 5     | BROMIDE   | 6.087                 | 2.588          | 13.602       | 13.95              | 13.41             | 19.5536        | n.a.           |
| 6     | NITRATE   | 6.917                 | 2.919          | 13.291       | 15.73              | 13.11             | 3.9091         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 17.696         | 99.275       | 95.38              | 97.89             |                |                |

| Chromatogram and Results |                        |                   |          |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|----------|--|--|--|--|--|--|
| Injection Details        |                        |                   |          |  |  |  |  |  |  |
| Injection Name:          | SO5988-1               | Run Time (min):   | 12.98    |  |  |  |  |  |  |
| Vial Number:             | 15                     | Injection Volume: | 200.00   |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1    |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | <br>n.a. |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.     |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0      |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 19:29        | Sample Weight:    | 1.0      |  |  |  |  |  |  |



| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1.888  | FLUORIDE  | 3.131          | 0.006  | 0.031  | 0.34          | 0.27            | 0.0128 | n.a.      |
| 3      | CHLORIDE  | 4.021          | 1.306  | 9.112  | 73.13         | 78.98           | 4.5618 | n.a.      |
| 4      | NITRITE   | 4.837          | 0.076  | 0.198  | 4.26          | 1.71            | 0.1239 | n.a.      |
| 5      | SULFATE   | 5.384          | 0.369  | 2.073  | 20.67         | 17.97           | 1.7295 | n.a.      |
| 6      | BROMIDE   | 6.104          | 0.010  | 0.028  | 0.57          | 0.25            | 0.0407 | n.a.      |
| 7.000  | NITRATE   | 6.964          | 0.016  | 0.068  | 0.88          | 0.59            | 0.0495 | n.a.      |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total: |           |                | 1.783  | 11.510 | 99.84         | 99.77           |        |           |

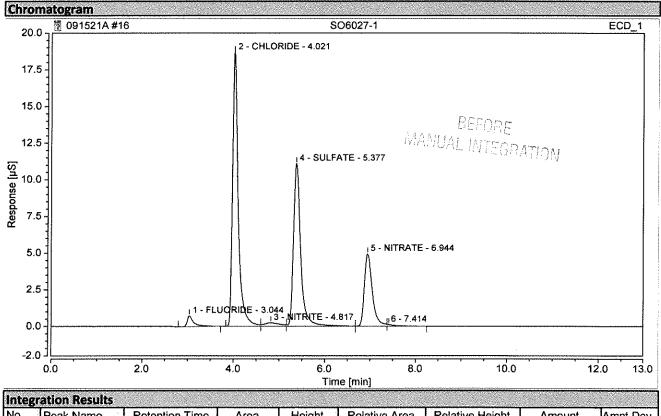
| Chromatogram and Results |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
|                          |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |  |  |
| SO5988-1                 | Run Time (min):                                                   | 12.98                                                                                                                                                                                      |  |  |  |  |  |  |  |
| 15                       | Injection Volume:                                                 | 200.00                                                                                                                                                                                     |  |  |  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD_1                                                                                                                                                                                      |  |  |  |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                                                                                       |  |  |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                                                                                       |  |  |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 1.0                                                                                                                                                                                        |  |  |  |  |  |  |  |
| 15/Sep/21 19:29          | Sample Weight:                                                    | 1.0                                                                                                                                                                                        |  |  |  |  |  |  |  |
|                          | SO5988-1<br>15<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | SO5988-1       Run Time (min):         15       Injection Volume:         Unknown       Channel:         ASDV30mMIsocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor: |  |  |  |  |  |  |  |



|               |           |       | 1.000 | · · · · · · | 10.10 | 10.00 | 1.0010 |
|---------------|-----------|-------|-------|-------------|-------|-------|--------|
|               | NITRITE   | 4.837 | 0.076 | 0.198       | 4.26  | 1.71  | 0.1239 |
| 222.C         | SULFATE   | 5.384 | 0.369 | 2.073       | 20.67 | 17.97 | 1.7295 |
|               | BROMIDE   | 6.104 | 0.010 | 0.028       | 0.57  | 0.25  | 0.0407 |
|               | NITRATE   | 6.964 | 0.016 | 0.068       | 0.88  | 0.59  | 0.0495 |
| <b>),</b> 883 | PHOSPHATE | n.a.  | n.a.  | n.a.        | n.a.  | n.a.  | n.a.   |
| tal:          |           |       | 1.783 | 11.510      | 99.84 | 99.77 |        |
|               |           |       |       |             |       |       |        |

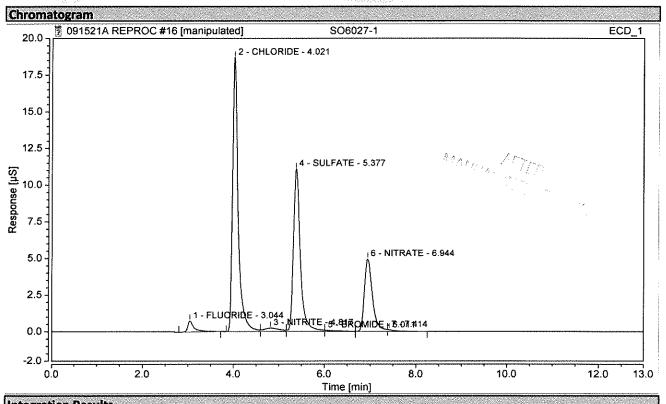
n.a. n.a. n.a. n.a.

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | SO6027-1               | Run Time (min):   | 12.98  |  |  |  |  |  |  |
| Vial Number:             | 16                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 19:43        | Sample Weight:    | 1.0    |  |  |  |  |  |  |



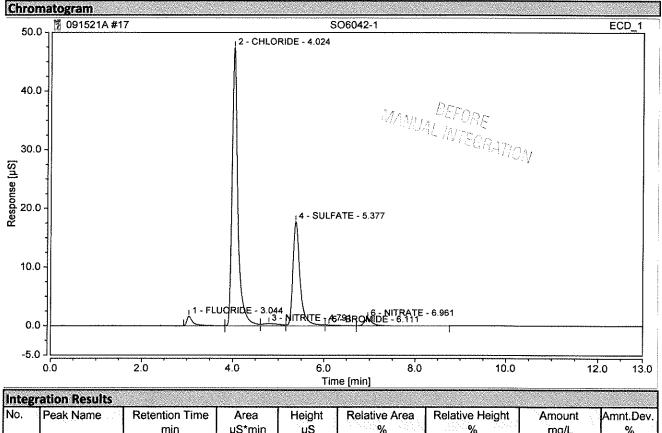
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1288  | FLUORIDE  | 3.044                 | 0.124          | 0.749        | 2.07               | 2.09              | 0.2624         | n.a.           |
| 2     | CHLORIDE  | 4.021                 | 2.688          | 18.679       | 44.99              | 52.17             | 9.2949         | n.a.           |
| 3     | NITRITE   | 4.817                 | 0.090          | 0.231        | 1.50               | 0.64              | 0.1464         | n.a.           |
| 4     | SULFATE   | 5.377                 | 2.034          | 11.086       | 34.04              | 30.96             | 9.5280         | n.a.           |
| n.a.  | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| 5     | NITRATE   | 6.944                 | 1.016          | 4.944        | 17.00              | 13.81             | 1.3790         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 5.951          | 35.689       | 99.60              | 99.68             |                |                |

| Chromatogram and Results |                        |                   |          |  |  |  |  |  |
|--------------------------|------------------------|-------------------|----------|--|--|--|--|--|
| Injection Details        |                        |                   |          |  |  |  |  |  |
| Injection Name:          | SO6027-1               | Run Time (min):   | 12.98    |  |  |  |  |  |
| Vial Number:             | 16                     | Injection Volume: | 200.00   |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1    |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | <br>n.a. |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.     |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0      |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 19:43        | Sample Weight:    | 1.0      |  |  |  |  |  |



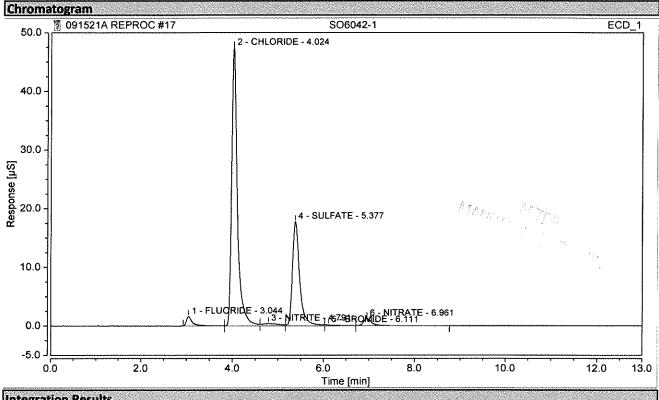
|       | ration Results |                |        |        |               | r               |        |          |
|-------|----------------|----------------|--------|--------|---------------|-----------------|--------|----------|
| No.   | Peak Name      | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|       |                | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1 333 | FLUORIDE       | 3.044          | 0.124  | 0.749  | 2.07          | 2.09            | 0.2624 | n.a.     |
| 2     | CHLORIDE       | 4.021          | 2.688  | 18.679 | 44.99         | 52.06           | 9.2949 | n.a.     |
| 3 333 | NITRITE        | 4.817          | 0.090  | 0.231  | 1.50          | 0.64            | 0.1464 | n.a.     |
| 4 🕸   | SULFATE        | 5.377          | 2.012  | 11.086 | 33.67         | 30.90           | 9.4260 | n.a.     |
| 5 🚿   | BROMIDE        | 6.011          | 0.022  | 0.079  | 0.36          | 0.22            | 0.1139 | n.a.     |
| 6 🚿   | NITRATE        | 6.944          | 1.016  | 4.944  | 17.00         | 13.78           | 1.3790 | n.a.     |
| n.a.  | PHOSPHATE      | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total | •              |                | 5.951  | 35.768 | 99.60         | 99.68           |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO6042-1               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 17                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 19:57        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |

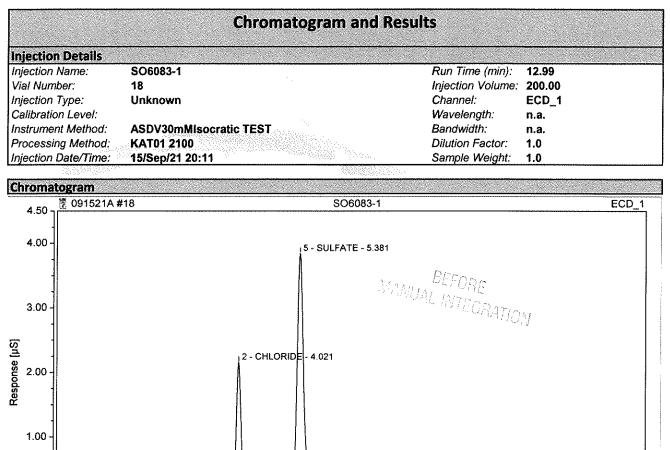


| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 3833 | FLUORIDE  | 3.044                 | 0.249          | 1.626        | 2.27               | 2.37              | 0.5273         | n.a.           |
| 2      | CHLORIDE  | 4.024                 | 6.929          | 47.434       | 63.31              | 69.14             | 23.8161        | n.a.           |
| 3 383  | NITRITE   | 4.791                 | 0.162          | 0.386        | 1.48               | 0.56              | 0.2638         | n.a.           |
| 4      | SULFATE   | 5.377                 | 3.292          | 17.790       | 30.08              | 25.93             | 15.4255        | n.a.           |
| 5      | BROMIDE   | 6.111                 | 0.047          | 0.132        | 0.43               | 0.19              | 0.1904         | n.a.           |
| 6      | NITRATE   | 6.961                 | 0.266          | 1.237        | 2.43               | 1.80              | 0.3824         | n.a.           |
| n.a.   | PHOSPHATE | sina.                 | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: |           |                       | 10.945         | 68.606       | 100.00             | 100.00            |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO6042-1               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 17                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 15/Sep/21 19:57        | Sample Weight:    | 1.0    |  |  |  |



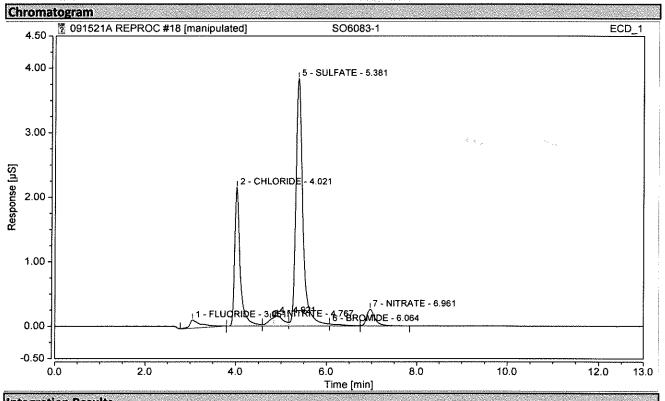
| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|-------|-----------|----------------|--------|--------|---------------|-----------------|---------|----------|
|       |           | min            | µS*min | μS     | %             | %               | mg/L    | %        |
| 1     | FLUORIDE  | 3.044          | 0.249  | 1.626  | 2.27          | 2.37            | 0.5273  | n.a.     |
| 2     | CHLORIDE  | 4.024          | 6.929  | 47.434 | 63.31         | 69.14           | 23.8161 | n.a.     |
| 3     | NITRITE   | 4.791          | 0.162  | 0.386  | 1.48          | 0.56            | 0.2638  | n.a.     |
| 4     | SULFATE   | 5.377          | 3.292  | 17.790 | 30.08         | 25.93           | 15.4255 | n.a.     |
| 5     | BROMIDE   | 6.111          | 0.047  | 0.132  | 0.43          | 0.19            | 0.1904  | n.a.     |
| 6     | NITRATE   | 6.961          | 0.266  | 1.237  | 2.43          | 1.80            | 0.3824  | n.a.     |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total |           |                | 10.945 | 68.606 | 100.00        | 100.00          |         |          |



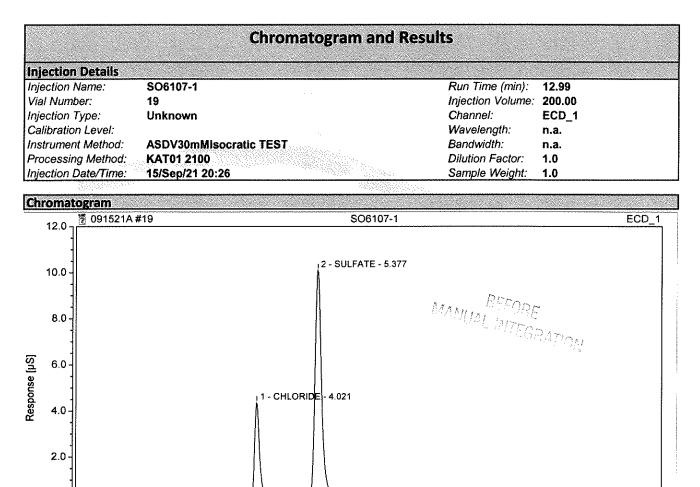
| and a second second second |                                       | 1 - FLUCRIDE - 3,95 | ANTRATE - 4.767 | 6 - NITRATE - 6.961 |      |   |
|----------------------------|---------------------------------------|---------------------|-----------------|---------------------|------|---|
| .00 -                      | L                                     |                     | 4               |                     | ···· |   |
| .50 - ] [                  | · · · · · · · · · · · · · · · · · · · | <del></del>         | ······          | · · · · · ·         | 10.0 | , |

| No.    | Peak Name          | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|--------------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1      | FLUORIDE           | 3.051                 | 0.038          | 0.126        | 3.26               | 1.90                 | 0.0799         | n.a.           |
| 2      | CHLORIDE           | 4.021                 | 0.306          | 2.150        | 26.47              | 32.44                | 1.1372         | n.a.           |
| 3      | NITRITE            | 4.767                 | 0.018          | 0.102        | 1.55               | 1.54                 | 0.0291         | n.a.           |
| 5      | SULFATE            | 5.381                 | 0.702          | 3.834        | 60.75              | 57.83                | 3.2887         | n.a.           |
| n,a,   | BROMIDE            | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 6      | NITRATE            | 6.961                 | 0.056          | 0.258        | 4.82               | 3.89                 | 0.1028         | n.a.           |
| n.a.   | PHOSPHATE          | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total: | Alter presentation |                       | 1.119          | 6.471        | 96.85              | 97.60                |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | SO6083-1               | Run Time (min):   | 12.99  |  |  |  |  |  |  |
| Vial Number:             | 18                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a    |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 20:11        | Sample Weight:    | 1.0    |  |  |  |  |  |  |



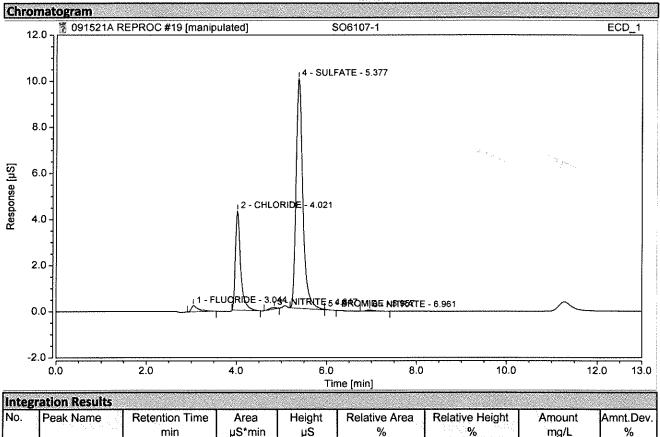
| No.    | Peak Name        | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|------------------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        | the field of the | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1333   | FLUORIDE         | 3.051          | 0.038  | 0.126  | 3.26          | 1.89            | 0.0799 | n.a.     |
| 2 9686 | CHLORIDE         | 4.021          | 0.306  | 2.150  | 26.47         | 32.28           | 1.1372 | n.a.     |
| 3 222  | NITRITE          | 4.767          | 0.018  | 0.102  | 1.55          | 1.54            | 0.0291 | n.a.     |
| 5 333  | SULFATE          | 5.381          | 0.692  | 3.834  | 59.85         | 57.57           | 3.2401 | n.a.     |
| 6      | BROMIDE          | 6.064          | 0.010  | 0.031  | 0.90          | 0.47            | 0.0446 | n.a.     |
| 7      | NITRATE          | 6.961          | 0.056  | 0.258  | 4.82          | 3.87            | 0.1028 | n.a.     |
| n.a. 🖄 | PHOSPHATE        | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total: |                  |                | 1.119  | 6.502  | 96,85         | 97.61           |        |          |



|       | 2.0             |                |             |            | I               |                 |        |           |
|-------|-----------------|----------------|-------------|------------|-----------------|-----------------|--------|-----------|
|       | 0.0             | 2.0            | 4.0         | 6.0<br>Tir | 8.0<br>ne [min] | 10.0            | 12.    | 0 13.0    |
| Integ | gration Results |                | 00000000000 |            | <u> </u>        |                 |        |           |
| No.   | Peak Name       | Retention Time | Area        | Height     | Relative Area   | Relative Height | Amount | Amnt.Dev. |

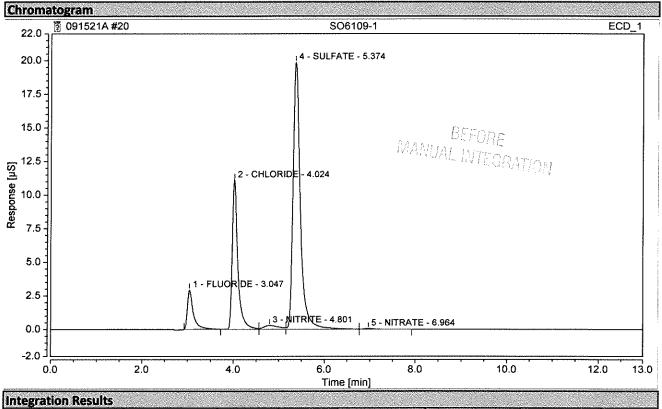
| 1 N.O. | reak Name |       | Alea   | neigi it | Relative Area | Relative neight                                                                                    | Anount | Anni. Dev. |
|--------|-----------|-------|--------|----------|---------------|----------------------------------------------------------------------------------------------------|--------|------------|
|        |           | min   | µS*min | μS       | %             | %                                                                                                  | mg/L   | %          |
| n.a.   | FLUORIDE  | n.a.  | n.a.   | n.a.     | n.a.          | see n.a, ee s                                                                                      | n.a.   | n.a.       |
| 1200   | CHLORIDE  | 4.021 | 0.585  | 4.306    | 24.99         | 30.16                                                                                              | 2.0930 | n.a.       |
| n.a.   | NITRITE   | n.a.  | n.a.   | n.a.     | n.a.          | n.a.                                                                                               | n.a.   | n.a.       |
| 2      | SULFATE   | 5.377 | 1.756  | 9.974    | 75.01         | 69.84                                                                                              | 8.2258 | n.a.       |
| n.a.   | BROMIDE   | n.a.  | n.a.   | n.a.     | n.a.          | n.a.                                                                                               | n.a.   | n.a.       |
| n.a. 🚿 | NITRATE   | n.a.  | n.a.   | n.a.     | n.a.          | n.a.                                                                                               | n.a.   | n.a.       |
| n.a.   | PHOSPHATE | n.a.  | n.a.   | n.a. 😒   | n.a.          | n.a.                                                                                               | n.a.   | n.a.       |
| Total: |           |       | 2.341  | 14.280   | 100.00        | 100.00                                                                                             |        |            |
|        |           |       |        |          |               | ويستعم ومنابع ومنافقات المتناف المتعاد المتعاد المتعاد والمتعاد والمتعاد والمتعاد والمتعاد والمحاص |        |            |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6107-1               | Run Time (min):   | 12.99  |  |  |  |  |  |
| Vial Number:             | 19                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 20:26        | Sample Weight:    | 1.0    |  |  |  |  |  |



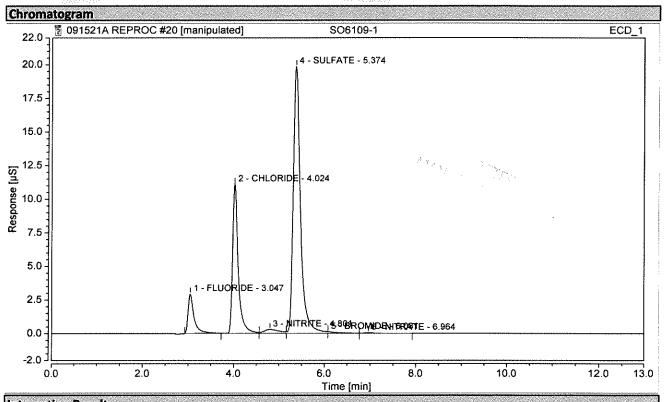
|       |           |                       |                |               |               | 100.00            |             |              |
|-------|-----------|-----------------------|----------------|---------------|---------------|-------------------|-------------|--------------|
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.          | n.a.          | n.a.              | <u>n.a.</u> | <u>n.a.</u>  |
| 6     | NITRATE   | 6.961                 | 0.009          | 0.045         | 0.38          | 0.31              | 0.0408      | n.a.         |
| 5     | BROMIDE   | 5.957                 | 0.002          | 0.022         | 0.08          | 0.15              | 0.0310      | n.a.         |
| 4     | SULFATE   | 5.377                 | 1.754          | 9.974         | 72.69         | 67.99             | 8.2171      | <b>n.a</b> . |
| 3     | NITRITE   | 4.847                 | 0.012          | 0.054         | 0.49          | 0.37              | 0.0191      | n.a.         |
| 2     | CHLORIDE  | 4.021                 | 0.585          | 4.306         | 24.24         | 29.36             | 2.0930      | n.a.         |
| 1 202 | FLUORIDE  | 3.044                 | 0.051          | 0.268         | 2.12          | 1.83              | 0.1086      | n.a.         |
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br> µS | Relative Area | Relative Height % | Amount      | Amnt.Dev     |

| n an an an Anna Anna Anna Anna<br>Tao amin' ao amin' a<br>Ny Faritr'o amin' amin | Chromatogram and       | Results           |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------|--------|
| Injection Details                                                                                                                                                                                                                      |                        |                   |        |
| Injection Name:                                                                                                                                                                                                                        | SO6109-1               | Run Time (min):   | 12.98  |
| Vial Number:                                                                                                                                                                                                                           | 20                     | Injection Volume: | 200.00 |
| Injection Type:                                                                                                                                                                                                                        | Unknown                | Channel:          | ECD_1  |
| Calibration Level:                                                                                                                                                                                                                     |                        | Wavelength:       | n.a.   |
| Instrument Method:                                                                                                                                                                                                                     | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:                                                                                                                                                                                                                     | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time:                                                                                                                                                                                                                   | 15/Sep/21 20:40        | Sample Weight:    | 1.0    |



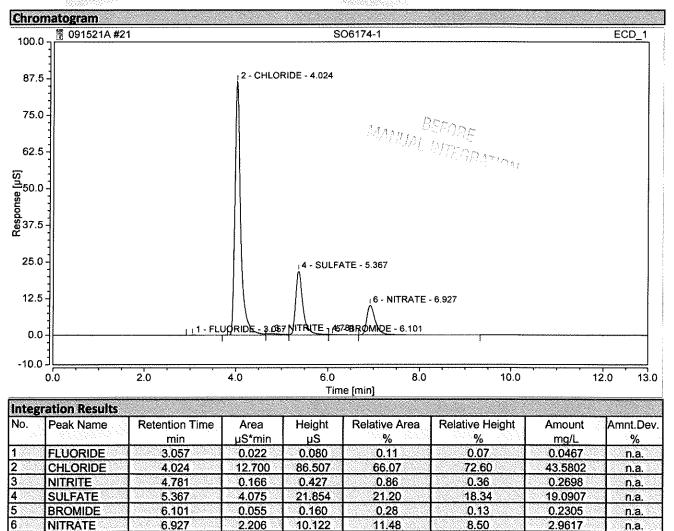
| No.          | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|--------------|-----------|----------------|--------|--------|---------------|-----------------|---------|----------|
|              |           | min            | µS*min | μS     | %             | %               | mg/L    | %        |
| 1 3333       | FLUORIDE  | 3.047          | 0.434  | 2.936  | 7.37          | 8.57            | 0.9190  | n.a.     |
| 2.000        | CHLORIDE  | 4.024          | 1.601  | 11.106 | 27.21         | 32.42           | 5.5712  | n.a.     |
| 3.33         | NITRITE   | 4.801          | 0.113  | 0.290  | 1.92          | 0.85            | 0.1836  | n.a.     |
| <b>4</b> (19 | SULFATE   | 5.374          | 3.721  | 19.875 | 63.24         | 58.01           | 17.4316 | n.a.     |
| n.a.         | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| 5            | NITRATE   | 6.964          | 0.015  | 0.054  | 0.26          | 0.16            | 0.0493  | n.a.     |
| n.a.         | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total        |           |                | 5.883  | 34.261 | 100.00        | 100.00          |         |          |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6109-1               | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 20                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 20:40        | Sample Weight:    | 1.0    |  |  |  |  |  |



| me    | gration Results |                    |        |        |               |                 |         |          |
|-------|-----------------|--------------------|--------|--------|---------------|-----------------|---------|----------|
| No.   | Peak Name       | Retention Time     | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|       |                 | min                | µS*min | μS     | %             | %               | mg/L    | %        |
| 1     | FLUORIDE        | 3.047              | 0.434  | 2.936  | 7.37          | 8.54            | 0.9190  | n.a.     |
| 2     | CHLORIDE        | 4.024              | 1.601  | 11.106 | 27.21         | 32.31           | 5.5712  | n.a.     |
| 3 🕬   | NITRITE         | 4.801              | 0.113  | 0.290  | 1.92          | 0.84            | 0.1836  | n.a.     |
| 4     | SULFATE         | 5.374              | 3.689  | 19.875 | 62.70         | 57.81           | 17.2828 | n.a.     |
| 5 🚟   | BROMIDE         | 6.081              | 0.032  | 0.116  | 0.54          | 0.34            | 0.1674  | n.a.     |
| 6     | NITRATE         | 6.964              | 0.015  | 0.054  | 0.26          | 0.16            | 0.0493  | n.a.     |
| n.a.  | PHOSPHATE       | n.a.               | on.a.  | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total | •               | 이 것은 것은 것은 것을 못했다. | 5.883  | 34.378 | 100.00        | 100.00          |         |          |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6174-1               | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 21                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 20:54        | Sample Weight:    | 1.0    |  |  |  |  |  |



n.a.

n.a.

n.a.

n.a.

Total:

PHOSPHATE

n.a.

n.a.

19.224

n.a.

119.150

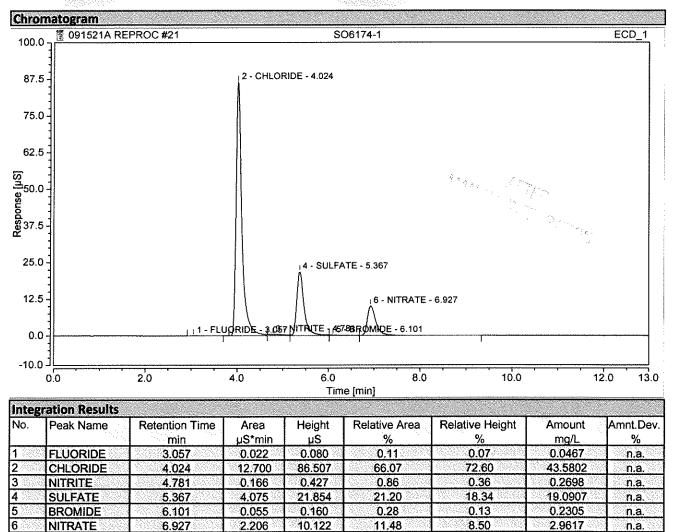
n.a.

100.00

n.a.

100.00

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6174-1               | Run Time (min):   | 12.98  |
| Vial Number:         | 21                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 20:54        | Sample Weight:    | 1.0    |



n.a.

100.00

n.a.

119,150

n.a.

19.224

n.a.

100.00

n.a.

n.a.

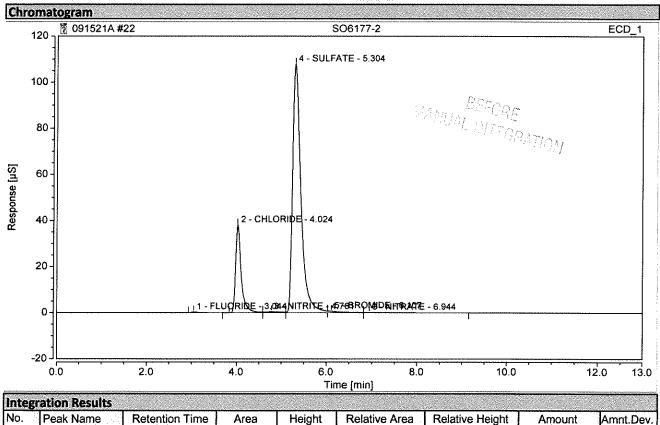
PHOSPHATE

n.a.

n.a.

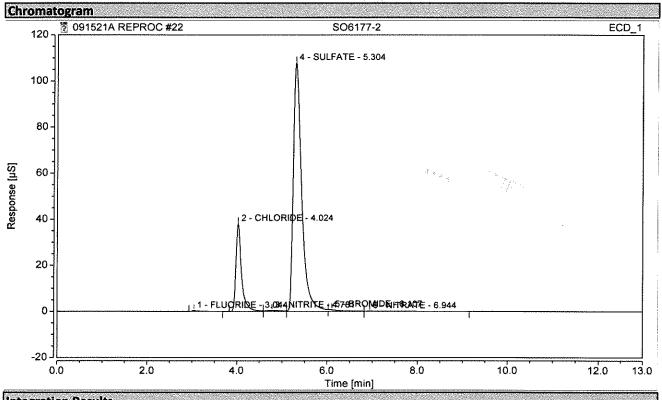
Total:

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | SO6177-2               | Run Time (min):   | 12.99  |  |  |  |  |  |  |
| Vial Number:             | 22                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n,a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 21:08        | Sample Weight:    | 1.0    |  |  |  |  |  |  |



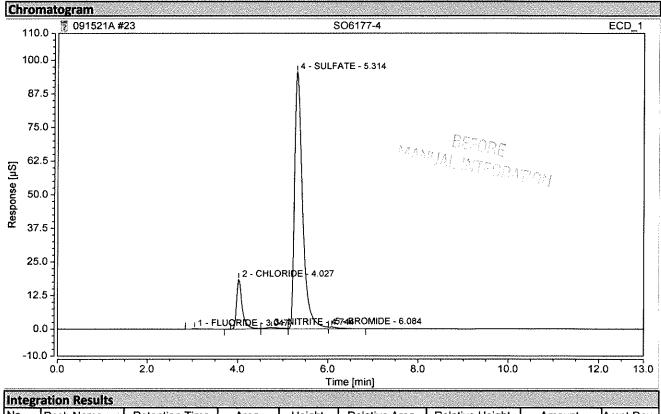
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area % | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|-----------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.044                 | 0.060          | 0.336        | 0.20            | 0.23              | 0.1267         | n.a.           |
| 2     | CHLORIDE  | 4.024                 | 5.533          | 38.078       | 18.85           | 25.83             | 19.0356        | n.a.           |
| 3 🖗   | NITRITE   | 4.781                 | 0.150          | 0.386        | 0.51            | 0.26              | 0.2451         | n.a.           |
| 4     | SULFATE   | 5.304                 | 23.334         | 107.863      | 79.48           | 73.16             | 109.3214       | n.a.           |
| 5     | BROMIDE   | 6.107                 | 0.222          | 0.676        | 0.76            | 0.46              | 0.9725         | n.a.           |
| 6     | NITRATE   | 6.944                 | 0.060          | 0.096        | 0.20            | 0.07              | 0.1079         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | o n.a.         | n.a.         | n.a.            | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 29.359         | 147.436      | 100.00          | 100.00            |                |                |

| Chromatogram and Results |                                                                   |                                                                                                                     |  |  |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
|                          |                                                                   |                                                                                                                     |  |  |  |  |  |  |
| SO6177-2                 | Run Time (min):                                                   | 12.99                                                                                                               |  |  |  |  |  |  |
| 22                       | Injection Volume:                                                 | 200.00                                                                                                              |  |  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD 1                                                                                                               |  |  |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                |  |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                |  |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 1.0                                                                                                                 |  |  |  |  |  |  |
| 15/Sep/21 21:08          | Sample Weight:                                                    | 1.0                                                                                                                 |  |  |  |  |  |  |
|                          | SO6177-2<br>22<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | SO6177-2Run Time (min):22Injection Volume:UnknownChannel:ASDV30mMisocratic TESTBandwidth:KAT01 2100Dilution Factor: |  |  |  |  |  |  |

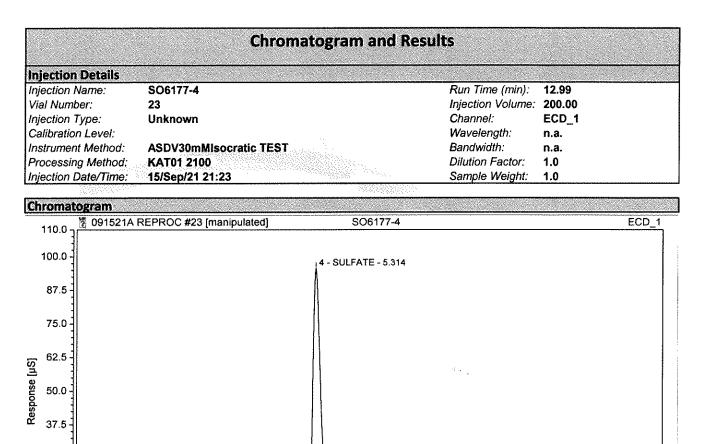


| ala a delarge e la ser | ration Results  | 1              |        | <del></del> | 1             | <b>_</b>        |          |          |
|------------------------|-----------------|----------------|--------|-------------|---------------|-----------------|----------|----------|
| No.                    | Peak Name       | Retention Time | Area   | Height      | Relative Area | Relative Height | Amount   | Amnt.Dev |
|                        | n ing bub subsu | min            | µS*min | μS          | %             | %               | mg/L     | %        |
| 1                      | FLUORIDE        | 3.044          | 0.060  | 0.336       | 0.20          | 0.23            | 0.1267   | n.a.     |
| 2                      | CHLORIDE        | 4.024          | 5.533  | 38.078      | 18.85         | 25.83           | 19.0356  | n.a.     |
| 3                      | NITRITE         | 4.781          | 0.150  | 0.386       | 0.51          | 0.26            | 0.2451   | n.a.     |
| 4 🍭                    | SULFATE         | 5.304          | 23.334 | 107.863     | 79.48         | 73.16           | 109.3214 | n.a.     |
| <b>5</b> 🛞             | BROMIDE         | 6.107          | 0.222  | 0.676       | 0.76          | 0.46            | 0.9725   | n.a.     |
| 6                      | NITRATE         | 6.944          | 0.060  | 0.096       | 0.20          | 0.07            | 0.1079   | n.a.     |
| n.a.                   | PHOSPHATE       | n.a.           | n.a.   | n.a.        | n.a.          | n.a.            | n.a.     | n.a.     |
| Total                  |                 |                | 29.359 | 147.436     | 100.00        | 100.00          |          |          |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6177-4               | Run Time (min):   | 12.99  |  |  |  |  |  |
| Vial Number:             | 23                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 21:23        | Sample Weight:    | 1.0    |  |  |  |  |  |



| No.   | Peak Name | Retention Time | Area<br>µS*min | Height<br>uS | Relative Area<br>% | Relative Height % | Amount<br>ma/L | Amnt.Dev.<br>% |
|-------|-----------|----------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.047          | 0.041          | 0.176        | 0.18               | 0.15              | 0.0872         | n.a.           |
| 2 🕬   | CHLORIDE  | 4.027          | 2.659          | 18.443       | 11.50              | 15.99             | 9.1969         | n.a.           |
| 3     | NITRITE   | 4.744          | 0.197          | 0.481        | 0.85               | 0.42              | 0.3203         | n.a.           |
| 4     | SULFATE   | 5.314          | 20.054         | 95.546       | 86.71              | 82.85             | 93.9542        | n.a.           |
| 5     | BROMIDE   | 6.084          | 0.178          | 0.685        | 0.77               | 0.59              | 0.9848         | n.a.           |
| n.a.  | NITRATE   | n.a.           | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | PHOSPHATE | n.a.           | n.a.           | n.a.         | n.a.               | n,a.              | n.a.           | n.a.           |
| Total |           |                | 23.129         | 115.330      | 100.00             | 100.00            |                |                |



|       |                        |                       |                | Ti           | ne [min]           |                   |                |                |
|-------|------------------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| Inte  | gration Results        |                       |                |              |                    |                   |                |                |
| No.   | Peak Name              | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1.885 | FLUORIDE               | 3.047                 | 0.041          | 0.176        | 0.18               | 0.15              | 0.0872         | n.a.           |
| 2     | CHLORIDE               | 4.027                 | 2.659          | 18.443       | 11.50              | 15.99             | 9.1969         | n.a.           |
| 3 🖉   | NITRITE                | 4.744                 | 0.197          | 0.481        | 0.85               | 0.42              | 0.3203         | n.a.           |
| 4 38  | SULFATE                | 5.314                 | 20.054         | 95.546       | 86.69              | 82.84             | 93.9542        | n.a.           |
| 5     | BROMIDE                | 6.084                 | 0.178          | 0.685        | 0.77               | 0.59              | 0.9848         | n.a.           |
| 6     | NITRATE                | 6.941                 | 0.004          | 0.004        | 0.02               | 0.00              | 0.0344         | n.a.           |
| n.a.  | PHOSPHATE              | n.a.                  | n.a.           | n.a.         | <u>n.a.</u>        | n.a.              | n.a.           | n.a.           |
| Tota  | n in Bedasarja (jejim, |                       | 23.133         | 115.334      | 100.00             | 100.00            |                |                |

6.0

457-48 ROMDENTROSAE

- 6.941

8.0

10.0

2 - CHLORIDE 4.027

RIDE

4.0

2.0

Chromeleon (c) Dionex Version 7.1.0.898 Katahdin Analytical Services 5000163

12.0

13.0

25.0

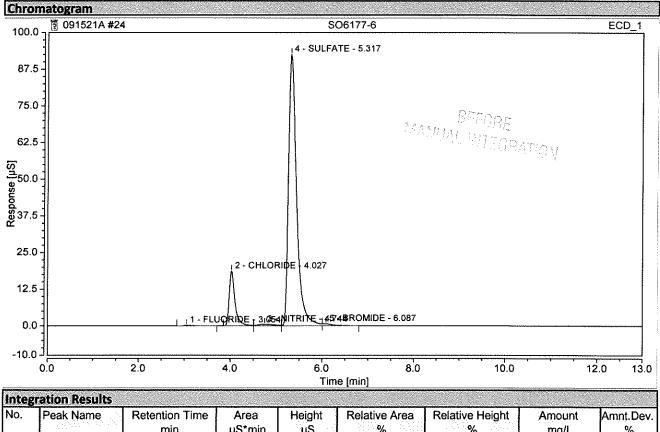
12.5

0.0

-10.0

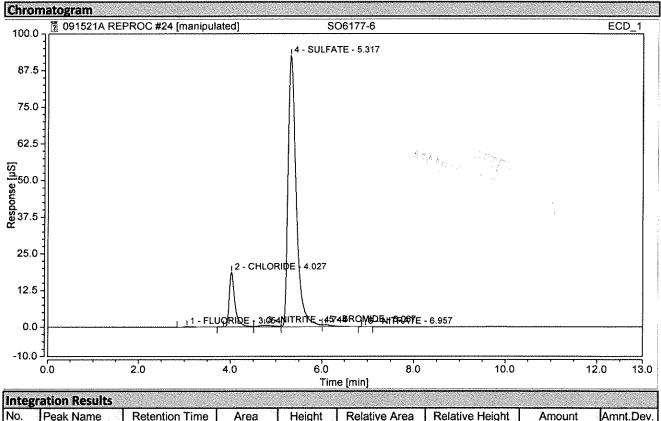
0.0

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | SO6177-6               | Run Time (min):   | 12.99  |  |  |  |  |  |  |
| Vial Number:             | 24                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 21:37        | Sample Weight:    | 1.0    |  |  |  |  |  |  |

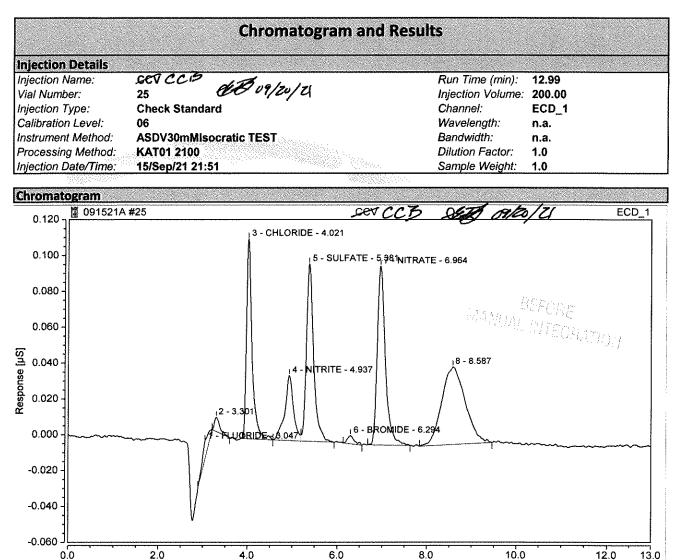


| No.   | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|-------|-----------|----------------|--------|---------|---------------|-----------------|---------|-----------|
|       |           | min            | µS*min | μS      | %             | %               | mg/L    | %         |
|       | FLUORIDE  | 3.054          | 0.049  | 0.188   | 0.22          | 0.17            | 0.1036  | n.a.      |
| 2     | CHLORIDE  | 4.027          | 2.679  | 18.639  | 12.00         | 16.57           | 9.2649  | n.a.      |
| 3 383 | NITRITE   | 4.744          | 0.200  | 0.482   | 0.89          | 0.43            | 0.3255  | n.a.      |
| 4 33  | SULFATE   | 5.317          | 19.230 | 92.540  | 86.11         | 82,25           | 90.0933 | n.a.      |
| 5 🕬   | BROMIDE   | 6.087          | 0.174  | 0.665   | 0.78          | 0.59            | 0.9558  | n.a.      |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.      |
| Total | •<br>●    |                | 22.332 | 112.514 | 100.00        | 100.00          |         |           |

|                      | Chromatogram and R     | lesults           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6177-6               | Run Time (min):   | 12.99  |
| Vial Number:         | 24                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD 1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 21:37        | Sample Weight:    | 1.0    |

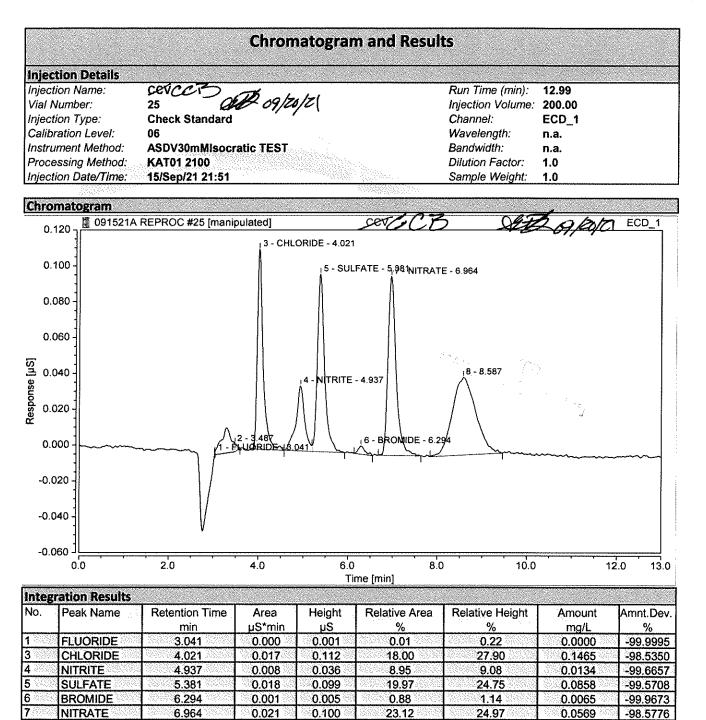


| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1888   | FLUORIDE  | 3.054                 | 0.049          | 0.188        | 0.22               | 0.17              | 0.1036         | n.a.           |
| 2 (18) | CHLORIDE  | 4.027                 | 2.679          | 18.639       | 12.00              | 16.56             | 9.2649         | n.a.           |
| 3 388  | NITRITE   | 4.744                 | 0.200          | 0.482        | 0.89               | 0.43              | 0.3255         | n.a.           |
| 4      | SULFATE   | 5.317                 | 19.230         | 92.540       | 86.10              | 82.23             | 90.0933        | n.a.           |
| 5      | BROMIDE   | 6.087                 | 0.174          | 0.665        | 0.78               | 0.59              | 0.9558         | n.a.           |
| 6      | NITRATE   | 6.957                 | 0.003          | 0.022        | 0.01               | 0.02              | 0.0328         | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  |           |                       | 22.335         | 112.536      | 100.00             | 100.00            |                |                |



Time [min]

| stration in the | ration Results |                |        | Γ      |               |                 |        |           |
|-----------------|----------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
| No.             | Peak Name      | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|                 |                | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1.200           | FLUORIDE       | 3.047          | 0.002  | 0.010  | 1.79          | 2.44            | 0.0036 | -99.9284  |
| 3               | CHLORIDE       | 4.021          | 0.017  | 0.112  | 17.51         | 27.04           | 0.1465 | -98.5350  |
| 4               | NITRITE        | 4.937          | 0.008  | 0.036  | 8.70          | 8.80            | 0.0134 | -99.6657  |
| 5               | SULFATE        | 5.381          | 0.018  | 0.099  | 19.43         | 23.99           | 0.0858 | -99.5708  |
| 6               | BROMIDE        | 6.294          | 0.001  | 0.005  | 0.86          | 1.10            | 0.0065 | -99.9673  |
| 7               | NITRATE        | 6.964          | 0.021  | 0.100  | 22.50         | 24.20           | 0.0569 | -98.5776  |
| n.a.            | PHOSPHATE      | n.a.           | 🧠 n.a. | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:          |                |                | 0.067  | 0.361  | 70.80         | 87.58           |        |           |



n.a.

0.352

n.a.

0.065

n.a.

70.94

n.a.

88.06

n.a.

n.a.

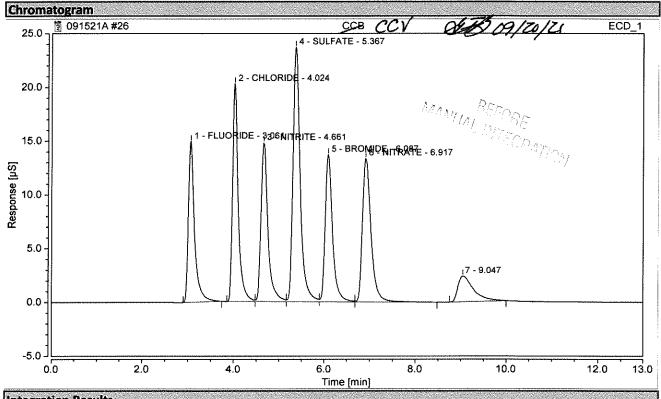
n.a.

Total:

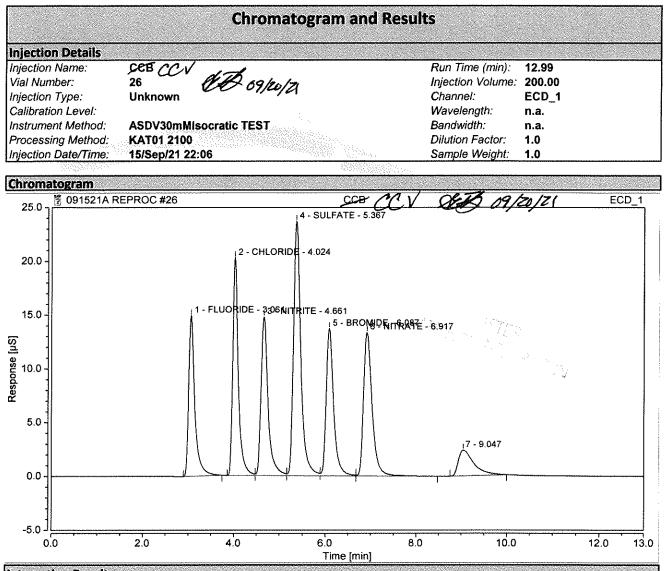
PHOSPHATE

n.a.

|                      |                   | Chromatogram and | Results           |        |
|----------------------|-------------------|------------------|-------------------|--------|
| Injection Details    |                   |                  |                   |        |
| Injection Name:      | CCV &             | 8 09/20/2(       | Run Time (min):   | 12.99  |
| Vial Number:         | 26                | e unapel         | Injection Volume: | 200.00 |
| Injection Type:      | Unknown           |                  | Channel:          | ECD_1  |
| Calibration Level:   |                   |                  | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic | TEST             | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100        |                  | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 22:06   |                  | Sample Weight:    | 1.0    |
| NO MERCENSION OF THE |                   |                  |                   |        |

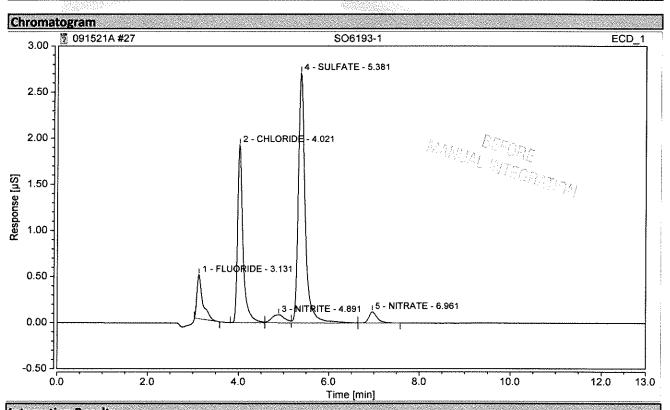


| 7. A. C. | ration Results    |                |        | I       | <b>D</b>      | Deletion Deletet | A 4     | 4         |
|----------------------------------------------|-------------------|----------------|--------|---------|---------------|------------------|---------|-----------|
| No.                                          | Peak Name         | Retention Time | Area   | Height  | Relative Area | Relative Height  | Amount  | Amnt.Dev. |
|                                              | a statistica se s | min            | µS*min | μS      | %             | %                | mg/L    | %         |
| 1                                            | FLUORIDE          | 3.061          | 2.361  | 14.959  | 12.61         | 14.51            | 5.0024  | n.a.      |
| 2                                            | CHLORIDE          | 4.024          | 2.897  | 20.257  | 15.47         | 19.65            | 10.0085 | n.a.      |
| 3.000                                        | NITRITE           | 4.661          | 2.648  | 14.770  | 14.15         | 14.33            | 4.3147  | n.a.      |
| 4                                            | SULFATE           | 5.367          | 4.348  | 23.672  | 23.22         | 22.96            | 20.3698 | n.a.      |
| 5                                            | BROMIDE           | 6.087          | 2.597  | 13.688  | 13.87         | 13.28            | 19.6781 | n.a.      |
| 6                                            | NITRATE           | 6.917          | 2.931  | 13.349  | 15.65         | 12.95            | 3.9244  | n.a.      |
| n.a.                                         | PHOSPHATE         | n.a.           | n.a.   | n.a.    | n.a.          | n.a.             | n.a.    | n.a.      |
| Total                                        |                   |                | 17.781 | 100.695 | 94.98         | 97.69            |         |           |



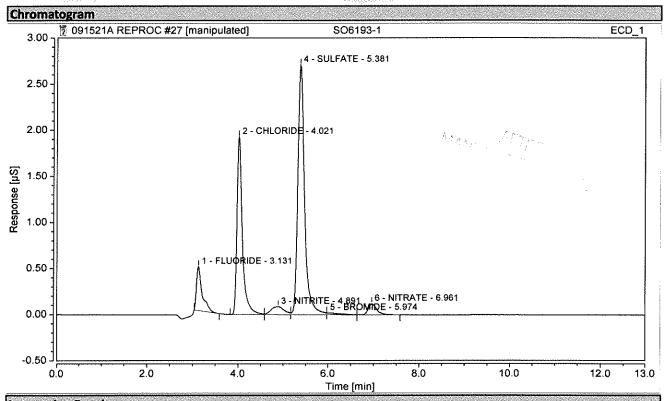
| a second or shall be | ration Results |                |        | Γ       | 1             | 1               |         |           |
|----------------------|----------------|----------------|--------|---------|---------------|-----------------|---------|-----------|
| No.                  | Peak Name      | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev  |
|                      |                | min            | µS*min | μS      | %             | %               | mg/L    | %         |
| 1338                 | FLUORIDE       | 3.061          | 2.361  | 14.959  | 12.61         | 14.51           | 5.0024  | n.a.      |
| 2                    | CHLORIDE       | 4.024          | 2.897  | 20.257  | 15.47         | 19.65           | 10.0085 | n.a.      |
| 3                    | NITRITE        | 4.661          | 2.648  | 14.770  | 14.15         | 14.33           | 4.3147  | n.a.      |
| 4                    | SULFATE        | 5.367          | 4.348  | 23.672  | 23.22         | 22.96           | 20.3698 | n.a.      |
| 5                    | BROMIDE        | 6.087          | 2.597  | 13.688  | 13.87         | 13.28           | 19.6781 | n.a.      |
| 6                    | NITRATE        | 6.917          | 2.931  | 13.349  | 15.65         | 12.95           | 3.9244  | o n.a.    |
| n.a.                 | PHOSPHATE      | n.a.           | n.a.   | n.a.    | n.a.          | л.а.            | n.a.    | ି ିn.a. ି |
| Total                |                |                | 17.781 | 100.695 | 94.98         | 97.69           |         |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
|                          |                        |                   |        |  |  |  |  |  |
| Vial Number:             | 27                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 22:20        | Sample Weight:    | 1.0    |  |  |  |  |  |



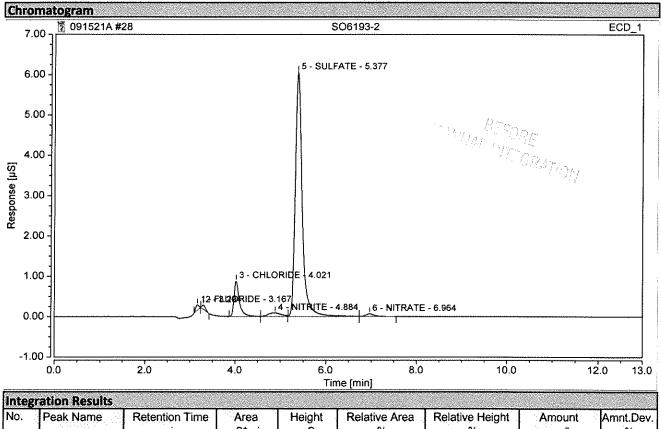
| No.   | Peak Name                             | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|-------|---------------------------------------|----------------|--------|--------|---------------|-----------------|--------|----------|
|       | i i i i i i i i i i i i i i i i i i i | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1 383 | FLUORIDE                              | 3.131          | 0.070  | 0.476  | 8.00          | 8.94            | 0.1479 | n.a.     |
| 2     | CHLORIDE                              | 4.021          | 0.269  | 1.929  | 30.86         | 36.23           | 1.0122 | n.a.     |
| 3     | NITRITE                               | 4.891          | 0.030  | 0.087  | 3.39          | 1.63            | 0.0482 | n.a.     |
| 4     | SULFATE                               | 5.381          | 0.478  | 2.711  | 54.78         | 50.92           | 2.2395 | n.a.     |
| n.a.  | BROMIDE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| 5     | NITRATE                               | 6.961          | 0.026  | 0.121  | 2.97          | 2.28            | 0.0631 | n.a.     |
| n.a.  | PHOSPHATE                             | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total |                                       |                | 0.873  | 5.324  | 100.00        | 100.00          |        |          |

|                      | Chromatogram and       | Results           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6193-1               | Run Time (min):   | 12.98  |
| Vial Number:         | 27                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 22:20        | Sample Weight:    | 1.0    |



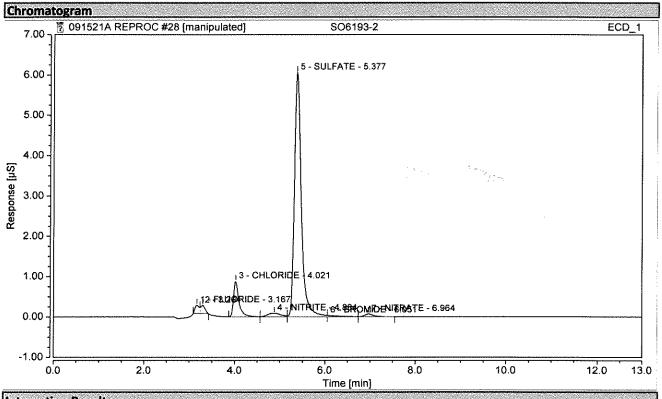
| No.   | Peak Name                                                                                                       | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount | Amnt.Dev |
|-------|-----------------------------------------------------------------------------------------------------------------|----------------|--------|---------|---------------|-----------------|--------|----------|
|       |                                                                                                                 | min            | µS*min | μS      | %             | %               | mg/L   | %        |
| 1288  | FLUORIDE                                                                                                        | 3.131          | 0.070  | 0.476   | 8.00          | 8.91            | 0.1479 | n.a.     |
| 2     | CHLORIDE                                                                                                        | 4.021          | 0.269  | 1.929   | 30.86         | 36.09           | 1.0122 | n.a.     |
| 3 🖉   | NITRITE                                                                                                         | 4.891          | 0.030  | 0.087   | 3.39          | 1.62            | 0.0482 | n.a.     |
| 4     | SULFATE                                                                                                         | 5.381          | 0.472  | 2.711   | 54.07         | 50.73           | 2.2105 | n.a.     |
| 5     | BROMIDE                                                                                                         | 5.974          | 0.006  | 0.020   | 0.71          | 0.38            | 0.0292 | n.a.     |
| 6     | NITRATE                                                                                                         | 6.961          | 0.026  | 0.121   | 2.97          | 2.27            | 0.0631 | n.a.     |
| n.a.  | PHOSPHATE                                                                                                       | n.a.           | n.a.   | ്ന.a. ത | n.a.          | n.a.            | n.a.   | n.a.     |
| Total | ter and the second s |                | 0.873  | 5.344   | 100.00        | 100.00          |        |          |

| Chromatogram and Results Injection Details |                        |                   |        |  |  |  |  |  |
|--------------------------------------------|------------------------|-------------------|--------|--|--|--|--|--|
|                                            |                        |                   |        |  |  |  |  |  |
| Vial Number:                               | 28                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:                            | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:                         |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:                         | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:                         | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:                       | 15/Sep/21 22:34        | Sample Weight:    | 1.0    |  |  |  |  |  |



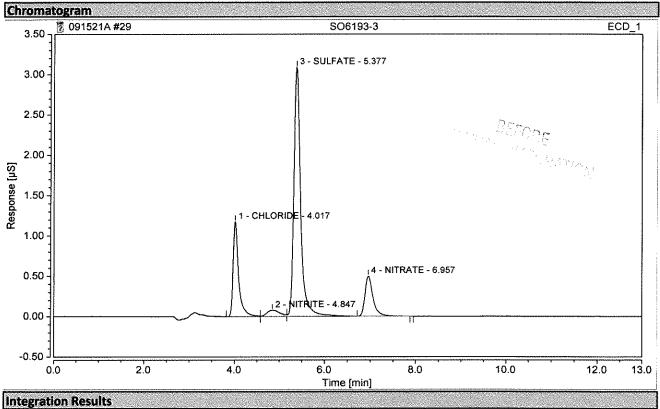
| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area % | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|-----------------|----------------------|----------------|----------------|
| 1.886  | FLUORIDE  | 3.167                 | 0.011          | 0.125        | 0.85            | 1.71                 | 0.0227         | n.a.           |
| 3      | CHLORIDE  | 4.021                 | 0.124          | 0.882        | 9.74            | 12.04                | 0.5133         | n.a.           |
| 4      | NITRITE   | 4.884                 | 0.029          | 0.087        | 2.32            | 1.19                 | 0.0479         | n.a.           |
| 5      | SULFATE   | 5.377                 | 1.081          | 6.059        | 85.17           | 82.73                | 5.0639         | n.a.           |
| n.a.   | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.            | n.a.                 | n.a.           | n.a.           |
| 6      | NITRATE   | 6.964                 | 0.015          | 0.068        | 1.20            | 0.93                 | 0.0489         | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.            | n.a.                 | n.a.           | n.a.           |
| Total: |           |                       | 1.260          | 7.221        | 99.27           | 98.60                |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | SO6193-2               | Run Time (min):   | 12.98  |  |  |  |  |  |  |
| Vial Number:             | 28                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 22:34        | Sample Weight:    | 1.0    |  |  |  |  |  |  |



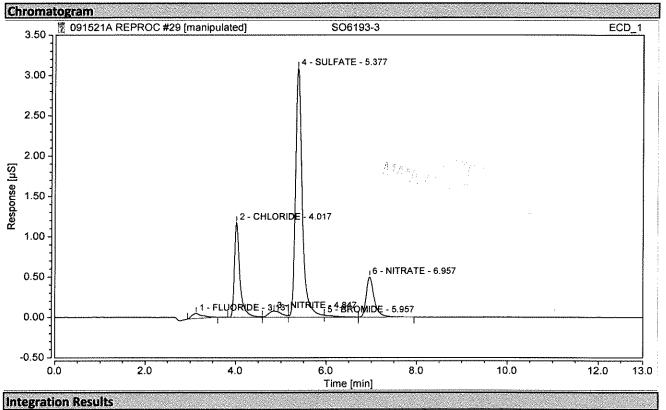
| 1 A. A. 100 Contraction (1996) | ration Results                                                                                                                                                                                                                      |                |          | · · · · · · |               | 1 <del></del> 1 |        | T         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-------------|---------------|-----------------|--------|-----------|
| No.                            | Peak Name                                                                                                                                                                                                                           | Retention Time | Area     | Height      | Relative Area | Relative Height | Amount | Amnt.Dev. |
|                                |                                                                                                                                                                                                                                     | min            | µS*min   | μS          | %             | %               | mg/L   | %         |
| 138                            | FLUORIDE                                                                                                                                                                                                                            | 3.167          | 0.022    | 0.204       | 1.69          | 2.71            | 0.0462 | n.a.      |
| 3                              | CHLORIDE                                                                                                                                                                                                                            | 4.021          | 0.124    | 0.882       | 9.56          | 11.70           | 0.5133 | n.a.      |
| 4                              | NITRITE                                                                                                                                                                                                                             | 4.884          | 0.029    | 0.087       | 2.27          | 1.15            | 0.0479 | n.a.      |
| <b>5</b> 38                    | SULFATE                                                                                                                                                                                                                             | 5.377          | 1.071    | 6.059       | 82.80         | 80.40           | 5.0179 | n.a.      |
| 6                              | BROMIDE                                                                                                                                                                                                                             | 6.051          | 0.010    | 0.034       | 0.76          | 0.45            | 0.0483 | n.a.      |
| 7.88%                          | NITRATE                                                                                                                                                                                                                             | 6.964          | 0.015    | 0.068       | 1,17          | 0.90            | 0.0489 | n.a.      |
| n.a.                           | PHOSPHATE                                                                                                                                                                                                                           | n.a.           | ് n.a. ് | n.a.        | n.a.          | n.a.            | n.a.   | n.a.      |
| Total                          | a de la companya de l<br>Na companya de la comp |                | 1.271    | 7.333       | 98.25         | 97.31           |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO6193-3               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 29                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 22:48        | Sample Weight:    | 1.0    |  |  |  |  |



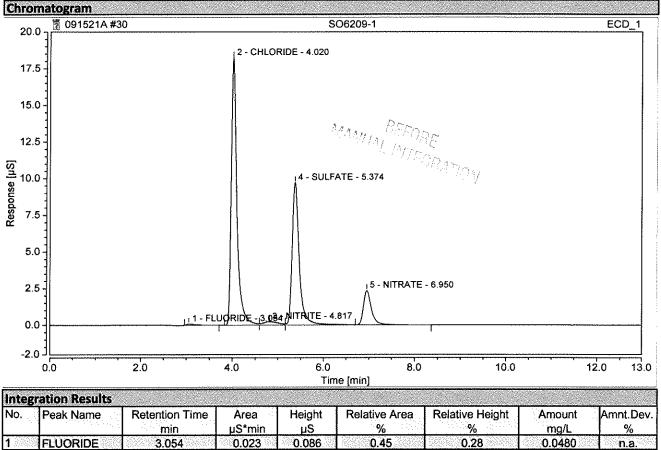
| No.   | Peak Name             | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------|-----------------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|       | 1.16.16               | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| n.a.  | FLUORIDE              | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 1868  | CHLORIDE              | 4.017          | 0.166  | 1.178  | 19.76         | 24.31           | 0.6600 | n.a.      |
| 2     | NITRITE               | 4.847          | 0.026  | 0.077  | 3.10          | 1.59            | 0.0425 | n.a.      |
| 3 200 | SULFATE               | 5.377          | 0.547  | 3.092  | 64.97         | 63.81           | 2.5647 | n.a.      |
| n.a.  | BROMIDE               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 4     | NITRATE               | 6.957          | 0.103  | 0.499  | 12.17         | 10.29           | 0.1650 | n.a.      |
| n.a.  | PHOSPHATE             | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total | nerseene Gebaarde Bag |                | 0.843  | 4.845  | 100.00        | 100.00          |        | T         |

| Chromatogram and Results |                        |                                       |        |  |  |  |  |
|--------------------------|------------------------|---------------------------------------|--------|--|--|--|--|
| Injection Details        |                        |                                       |        |  |  |  |  |
| Injection Name:          | SO6193-3               | Run Time (min):                       | 12.99  |  |  |  |  |
| Vial Number:             | 29                     | Injection Volume:                     | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:                              | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:                           | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:                            | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:                      | 1.0    |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 22:48        | Sample Weight:                        | 1.0    |  |  |  |  |
|                          |                        | · · · · · · · · · · · · · · · · · · · |        |  |  |  |  |



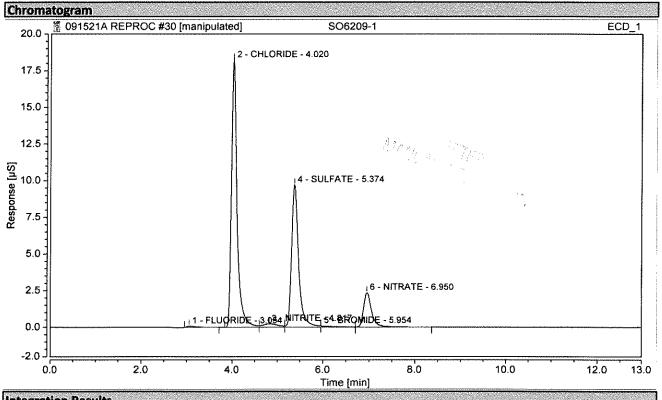
| Integ<br>No. | Peak Name  | Retention Time         | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------------|------------|------------------------|--------|--------|---------------|-----------------|--------|-----------|
| 110.         | Fear Maine | min                    | uS*min | uS     |               | %               | mg/L   | %         |
| 1 3020       | FLUORIDE   | 3.131                  | 0.018  | 0.064  | 2.08          | 1.29            | 0.0379 | ^0<br>    |
| 2            | CHLORIDE   | 4.017                  | 0.166  | 1.178  | 19.35         | 23.87           | 0.6600 | n.a.      |
| 3            | NITRITE    | 4.847                  | 0.026  | 0.077  | 3.03          | 1.56            | 0.0425 | n.a.      |
| 4            | SULFATE    | 5.377                  | 0.539  | 3.092  | 62.70         | 62.65           | 2.5275 | n.a.      |
| 5            | BROMIDE    | 5.957                  | 0.007  | 0.025  | 0.82          | 0.50            | 0.0353 | n.a.      |
| 6            | NITRATE    | 6.957                  | 0.103  | 0.500  | 12.02         | 10.13           | 0.1662 | n.a.      |
| n.a.         | PHOSPHATE  | n.a.                   | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:       |            | 지하는 지하는 것은 것을 것을 수 없다. | 0.860  | 4.935  | 100.00        | 100.00          |        |           |

| Chromatogram and R     | esults                                                            |                                                                                              |
|------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                        |                                                                   |                                                                                              |
| SO6209-1               | Run Time (min):                                                   | 12.97                                                                                        |
| 30                     | Injection Volume:                                                 | 200.00                                                                                       |
| Unknown                | Channel:                                                          | ECD_1                                                                                        |
|                        | Wavelength:                                                       | n.a.                                                                                         |
| ASDV30mMisocratic TEST | Bandwidth:                                                        | n.a.                                                                                         |
| KAT01 2100             | Dilution Factor:                                                  | 1.0                                                                                          |
| 15/Sep/21 23:03        | Sample Weight:                                                    | 1.0                                                                                          |
|                        | SO6209-1<br>30<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | 30Injection Volume:UnknownChannel:ASDV30mMIsocratic TESTBandwidth:KAT01 2100Dilution Factor: |

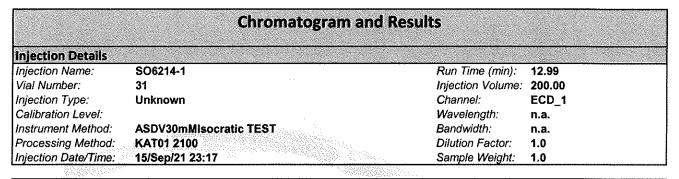


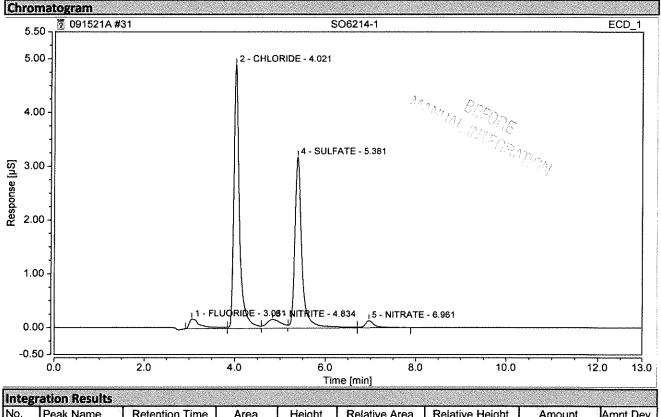
|        | Cartenic  | min                                      | µS*min | μS     | %      | %      | mg/L   | %    |
|--------|-----------|------------------------------------------|--------|--------|--------|--------|--------|------|
| 1 3838 | FLUORIDE  | 3.054                                    | 0.023  | 0.086  | 0.45   | 0.28   | 0.0480 | n.a. |
| 2      | CHLORIDE  | 4.020                                    | 2.636  | 18.228 | 52.59  | 59.61  | 9.1163 | n.a. |
| 3      | NITRITE   | 4.817                                    | 0.090  | 0.225  | 1.80   | 0.74   | 0.1470 | n.a. |
| 4      | SULFATE   | 5.374                                    | 1.788  | 9.704  | 35.67  | 31.73  | 8.3753 | n.a. |
| n.a.   | BROMIDE   | n.a.                                     | n.a.   | n.a.   | n.a.   | n.a.   | n.a.   | n.a. |
| 5      | NITRATE   | 6.950                                    | 0.476  | 2.337  | 9.49   | 7.64   | 0.6610 | n.a. |
| n.a.   | PHOSPHATE | n.a.                                     | n.a.   | n.a.   | n.a.   | n.a.   | n.a.   | n.a. |
| Total: |           | n en | 5.012  | 30.579 | 100.00 | 100.00 |        |      |

| Chromatogram and Results |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                          |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |
| SO6209-1                 | Run Time (min):                                                   | 12.97                                                                                                                                                                                      |  |  |  |  |  |
| 30                       | Injection Volume:                                                 | 200.00                                                                                                                                                                                     |  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD_1                                                                                                                                                                                      |  |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                                                                                       |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                                                                                       |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 1.0                                                                                                                                                                                        |  |  |  |  |  |
| 15/Sep/21 23:03          | Sample Weight:                                                    | 1.0                                                                                                                                                                                        |  |  |  |  |  |
|                          | SO6209-1<br>30<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | SO6209-1       Run Time (min):         30       Injection Volume:         Unknown       Channel:         ASDV30mMisocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor: |  |  |  |  |  |



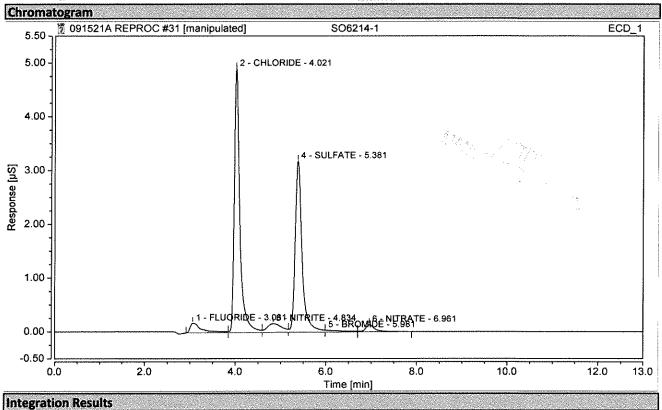
| No.    | Peak Name                         | Retention Time                         | Area       | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------------------------------|----------------------------------------|------------|--------|---------------|-----------------|--------|----------|
|        |                                   | min                                    | µS*min     | μS     | %             | %               | mg/L   | %        |
| 1.88   | FLUORIDE                          | 3.054                                  | 0.023      | 0.086  | 0.45          | 0.28            | 0.0480 | n.a.     |
| 2      | CHLORIDE                          | 4.020                                  | 2.636      | 18.228 | 52.59         | 59.43           | 9.1163 | n.a.     |
| 3      | NITRITE                           | 4.817                                  | 0.090      | 0.225  | 1.80          | 0.73            | 0.1470 | n.a.     |
| 4      | SULFATE                           | 5.374                                  | 1.750      | 9.704  | 34.91         | 31.63           | 8.1983 | n.a.     |
| 5      | BROMIDE                           | 5.954                                  | 0.027      | 0.084  | 0.54          | 0.27            | 0.1204 | n.a.     |
| 6      | NITRATE                           | 6.950                                  | 0.486      | 2.348  | 9.71          | 7.65            | 0.6753 | n.a.     |
| n.a. 🔪 | PHOSPHATE                         | n.a.                                   | ેં n.a. એટ | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total  | n Napoleo a servición - 1976<br>• | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 5.012      | 30.674 | 100.00        | 100.00          |        |          |





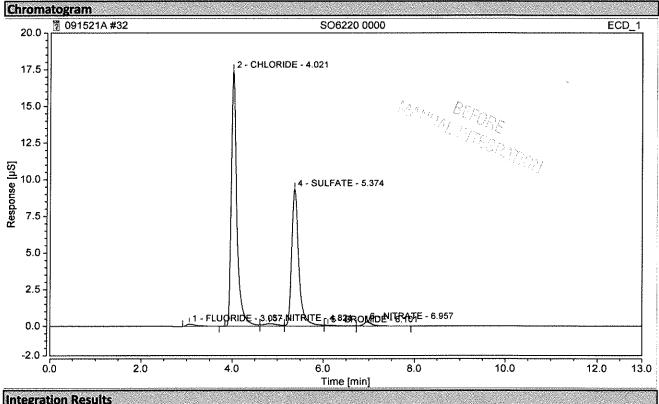
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1.88  | FLUORIDE  | 3.061                 | 0.056          | 0.178        | 3.87               | 2.08              | 0.1180         | n.a.           |
| 2     | CHLORIDE  | 4.021                 | 0.706          | 4.907        | 49.08              | 57.30             | 2.5070         | n.a.           |
| 3.28  | NITRITE   | 4.834                 | 0.062          | 0.162        | 4.32               | 1.89              | 0.1013         | n.a.           |
| 4     | SULFATE   | 5.381                 | 0.581          | 3.183        | 40.43              | 37.16             | 2.7237         | n.a.           |
| n.a.  | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| 5     | NITRATE   | 6.961                 | 0.033          | 0.134        | 2.30               | 1.56              | 0.0726         | л.а.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n,a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 1.438          | 8.564        | 100.00             | 100.00            |                |                |

| Chromatogram and Results                                                                                        |                        |                   |        |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details                                                                                               |                        |                   |        |  |  |  |  |
| Injection Name:                                                                                                 | SO6214-1               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:                                                                                                    | 31                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:                                                                                                 | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:                                                                                              |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:                                                                                              | ASDV30mMlsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:                                                                                              | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:                                                                                            | 15/Sep/21 23:17        | Sample Weight:    | 1.0    |  |  |  |  |
| A DARA STATES AND A D |                        |                   |        |  |  |  |  |



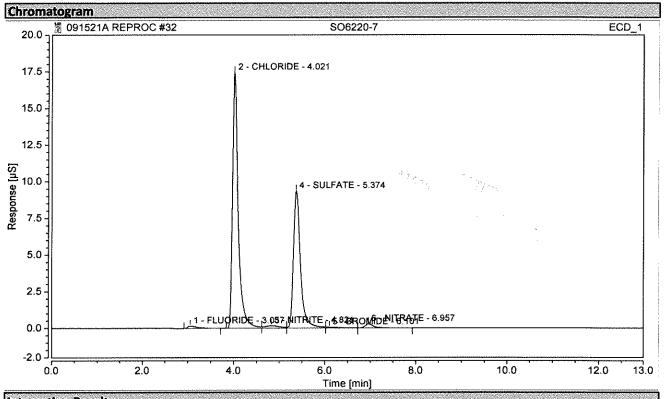
| No.   | Peak Name                       | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|---------------------------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1.363 | FLUORIDE                        | 3.061                 | 0.056          | 0.178        | 3.87               | 2.07                 | 0.1180         | n.a.           |
| 2     | CHLORIDE                        | 4.021                 | 0.706          | 4.907        | 49.08              | 57.07                | 2.5070         | n.a.           |
| 3     | NITRITE                         | 4.834                 | 0.062          | 0.162        | 4.32               | 1.88                 | 0.1013         | n.a.           |
| 4     | SULFATE                         | 5.381                 | 0.567          | 3.183        | 39.45              | 37.01                | 2.6581         | n.a.           |
| 5     | BROMIDE                         | 5.981                 | 0.014          | 0.035        | 0.97               | 0.41                 | 0.0510         | n.a.           |
| 6     | NITRATE                         | 6.961                 | 0.033          | 0.134        | 2.30               | 1.56                 | 0.0726         | n.a.           |
| n.a.  | PHOSPHATE                       | n.a.                  | 👋 n.a. 🕬       | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total | <ul> <li>Alternative</li> </ul> |                       | 1.438          | 8.599        | 100.00             | 100.00               |                |                |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220 0000            | Run Time (min):   | 12.98  |
| Vial Number:         | 32                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 23:31        | Sample Weight:    | 1.0    |



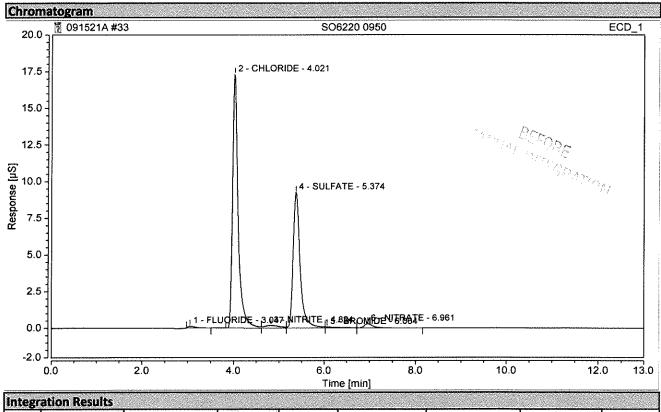
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %        |
|        | FLUORIDE  | 3.057          | 0.041  | 0.161  | 0.94          | 0.59            | 0.0876 | n.a.     |
| 2      | CHLORIDE  | 4.021          | 2.512  | 17.435 | 57.34         | 63.49           | 8.6928 | n.a.     |
| 3      | NITRITE   | 4.821          | 0.063  | 0.165  | 1.44          | 0.60            | 0.1026 | n.a.     |
| 4      | SULFATE   | 5.374          | 1.681  | 9.352  | 38.37         | 34.06           | 7.8769 | n.a.     |
| 5      | BROMIDE   | 6.101          | 0.021  | 0.063  | 0.48          | 0.23            | 0.0899 | n.a.     |
| 6      | NITRATE   | 6.957          | 0.062  | 0.283  | 1.42          | 1.03            | 0.1116 | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total: |           |                | 4.381  | 27.459 | 100.00        | 100,00          |        |          |

|                      | Chromatogram and Res   | ults              |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220-7               | Run Time (min):   | 12.98  |
| Vial Number:         | 32                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 23:31        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |



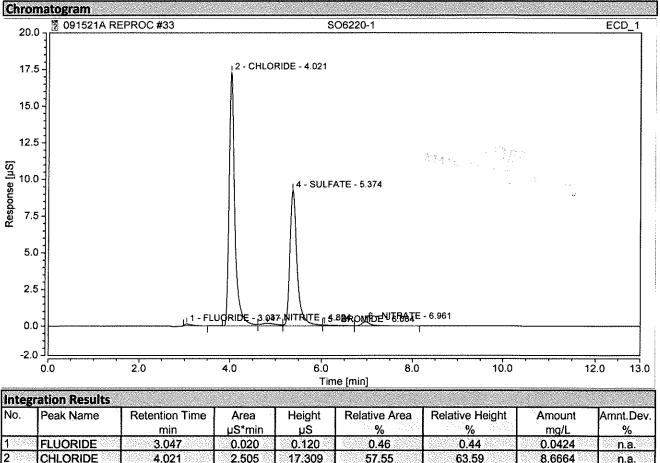
| Integ  | ration Results |                       |                |              |                    |                   |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1 388  | FLUORIDE       | 3.057                 | 0.041          | 0.161        | 0.94               | 0.59              | 0.0876         | n.a.           |
| 2 3838 | CHLORIDE       | 4.021                 | 2.512          | 17.435       | 57.34              | 63.49             | 8.6928         | n.a.           |
| 3 666  | NITRITE        | 4.821                 | 0.063          | 0.165        | 1.44               | 0.60              | 0.1026         | n.a.           |
| 4      | SULFATE        | 5.374                 | 1.681          | 9.352        | 38.37              | 34.06             | 7.8769         | n.a.           |
| 5      | BROMIDE        | 6.101                 | 0.021          | 0.063        | 0.48               | 0.23              | 0.0899         | n.a.           |
| 6      | NITRATE        | 6.957                 | 0.062          | 0.283        | 1.42               | 1.03              | 0.1116         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: |                |                       | 4.381          | 27.459       | 100.00             | 100.00            |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220 0950            | Run Time (min):   | 12.99  |
| Vial Number:         | 33                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 15/Sep/21 23:45        | Sample Weight:    | 1.0    |



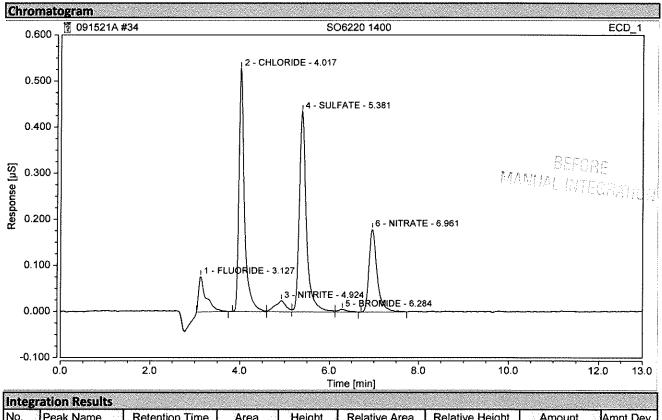
| No.    | Peak Name                                                                                                      | Retention Time<br>min | Area<br>uS*min | Height<br>uS | Relative Area % | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|----------------------------------------------------------------------------------------------------------------|-----------------------|----------------|--------------|-----------------|-------------------|----------------|----------------|
| 1      | FLUORIDE                                                                                                       | 3.047                 | 0.020          | 0.120        | 0.46            | 0.44              | 0.0424         | n.a.           |
| 2      | CHLORIDE                                                                                                       | 4.021                 | 2.505          | 17.309       | 57.55           | 63.59             | 8.6664         | on.a.          |
| 3      | NITRITE                                                                                                        | 4.824                 | 0.067          | 0.176        | 1.53            | 0.65              | 0.1084         | n.a.           |
| 4      | SULFATE                                                                                                        | 5.374                 | 1.672          | 9.258        | 38.43           | 34.01             | 7.8350         | n.a.           |
| 5      | BROMIDE                                                                                                        | 6.064                 | 0.023          | 0.068        | 0.52            | 0.25              | 0.0979         | n.a.           |
| 6      | NITRATE                                                                                                        | 6.961                 | 0.066          | 0.290        | 1.51            | 1.06              | 0.1160         | n.a.           |
| n.a.   | PHOSPHATE                                                                                                      | n.a.                  | n.a.           | n.a.         | n.a.            | n.a.              | n.a.           | n.a.           |
| Total: | est and a second se |                       | 4.352          | 27.221       | 100.00          | 100.00            |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6220-1               | Run Time (min):   | 12.99  |  |  |  |  |  |
| Vial Number:             | 33                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 15/Sep/21 23:45        | Sample Weight:    | 1.0    |  |  |  |  |  |



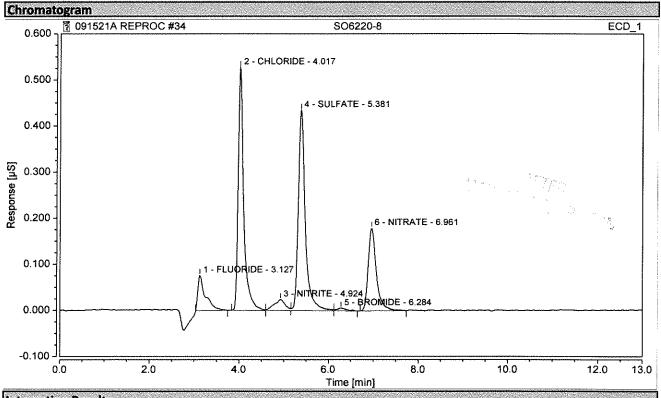
| Total: |           |         | 4.352 | 27.221 | 100.00 | 100.00 |        |                 |
|--------|-----------|---------|-------|--------|--------|--------|--------|-----------------|
| n.a. 📎 | PHOSPHATE | n.a.    | n.a.  | n.a.   | n.a.   | n.a.   | n.a.   | <u>ി.a.</u>     |
| 6      | NITRATE   | 6.961   | 0.066 | 0.290  | 1.51   | 1.06   | 0.1160 | n.a.            |
| 5      | BROMIDE   | 6.064   | 0.023 | 0.068  | 0.52   | 0.25   | 0.0979 | n.a.            |
| 4      | SULFATE   | 5.374   | 1.672 | 9.258  | 38.43  | 34.01  | 7.8350 | n.a.            |
| 3 3338 | NITRITE   | 4.824   | 0.067 | 0.176  | 1.53   | 0.65   | 0.1084 | n.a.            |
| 2      | CHLORIDE  | 4.021   | 2.505 | 17.309 | 57.55  | 63.59  | 8.6664 | ି <b>n.a</b> .ି |
| 139393 | FLUORIDE  | 3.047   | 0.020 | 0.120  | 0.46   | 0.44   | 0.0424 | n.a.            |
|        | 1         | 1 11111 | Polim |        | /0     | /0     | IIIQ/L | /0              |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6220 1400            | Run Time (min):   | 12.99  |  |  |  |  |  |
| Vial Number:             | 34                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:00        | Sample Weight:    | 1.0    |  |  |  |  |  |



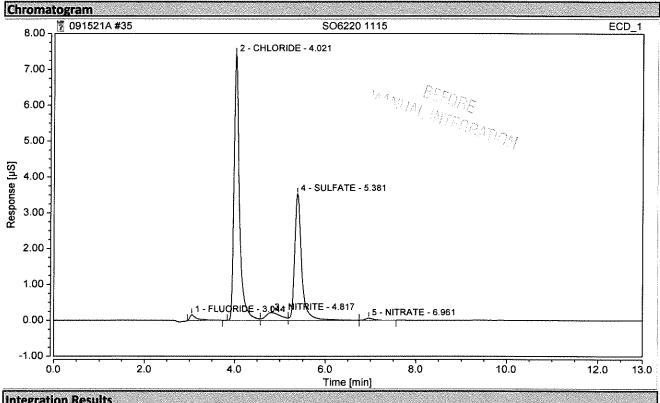
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.127                 | 0.015          | 0.077        | 6.87               | 6.15              | 0.0316         | n.a.           |
| 2     | CHLORIDE  | 4.017                 | 0.076          | 0.528        | 35.09              | 42.22             | 0.3506         | n.a.           |
| 3 883 | NITRITE   | 4.924                 | 0.007          | 0.024        | 3.17               | 1.94              | 0.0112         | n.a.           |
| 4     | SULFATE   | 5.381                 | 0.079          | 0.435        | 36.62              | 34.84             | 0.3721         | n.a.           |
| 5 🕸   | BROMIDE   | 6.284                 | 0.001          | 0.006        | 0.67               | 0.46              | 0.0083         | n.a.           |
| 6     | NITRATE   | 6.961                 | 0.038          | 0.180        | 17.58              | 14.38             | 0.0794         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                       | 0.217          | 1.250        | 100.00             | 100.00            |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220-8               | Run Time (min):   | 12.99  |
| Vial Number:         | 34                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 00:00        | Sample Weight:    | 1.0    |



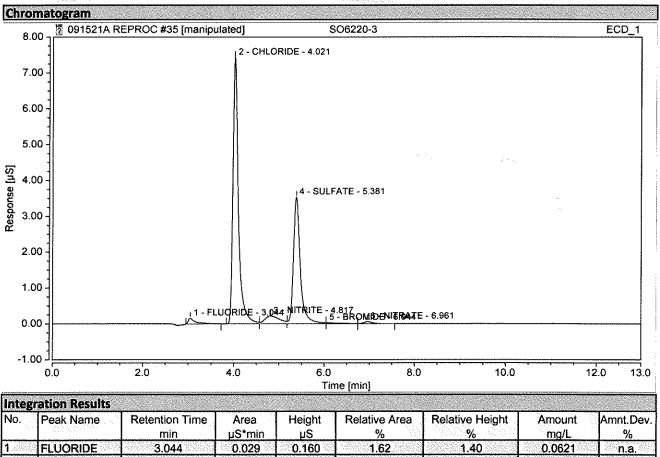
| 10.4903007.53 | gration Results |                |        | 1      | r             |                 |        |          |
|---------------|-----------------|----------------|--------|--------|---------------|-----------------|--------|----------|
| No.           | Peak Name       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|               |                 | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1             | FLUORIDE        | 3.127          | 0.015  | 0.077  | 6.87          | 6.15            | 0.0316 | n.a.     |
| 2             | CHLORIDE        | 4.017          | 0.076  | 0.528  | 35.09         | 42.22           | 0.3506 | n.a.     |
| 3.88          | NITRITE         | 4.924          | 0.007  | 0.024  | 3.17          | 1.94            | 0.0112 | n.a.     |
| 4             | SULFATE         | 5.381          | 0.079  | 0.435  | 36.62         | 34.84           | 0.3721 | n.a.     |
| 5 383         | BROMIDE         | 6.284          | 0.001  | 0.006  | 0.67          | 0.46            | 0.0083 | n.a.     |
| 6             | NITRATE         | 6.961          | 0.038  | 0.180  | 17.58         | 14.38           | 0.0794 | n.a.     |
| n.a.          | PHOSPHATE       | n.a.           | n.a.   | n.a. 😒 | n.a.          | n.a.            | n.a.   | n.a.     |
| Total         | •               | 영화 문을 것 같아?    | 0.217  | 1.250  | 100.00        | 100.00          |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO6220 1115            | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 35                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:14        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



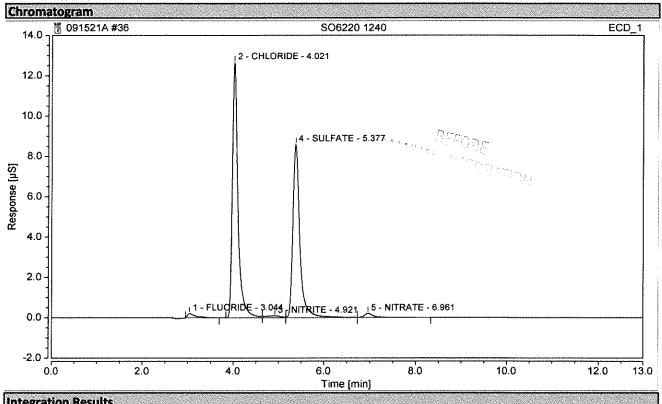
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1 333  | FLUORIDE  | 3.044          | 0.029  | 0.160  | 1.62          | 1.40            | 0.0621 | n.a.      |
| 2 288  | CHLORIDE  | 4.021          | 1.053  | 7.429  | 58.14         | 65.19           | 3.6945 | n.a.      |
| 3 388  | NITRITE   | 4.817          | 0.083  | 0.217  | 4.57          | 1.91            | 0.1348 | n.a.      |
| 4      | SULFATE   | 5.381          | 0.633  | 3.530  | 34.95         | 30.98           | 2.9648 | n.a.      |
| n.a.   | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 5      | NITRATE   | 6.961          | 0.013  | 0.059  | 0.72          | 0.52            | 0.0461 | n.a.      |
| n.a. 🔅 | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total  | •         |                | 1.811  | 11.395 | 100.00        | 100.00          |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO6220-3               | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 35                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:14        | Sample Weight:    | 1.0    |  |  |  |  |



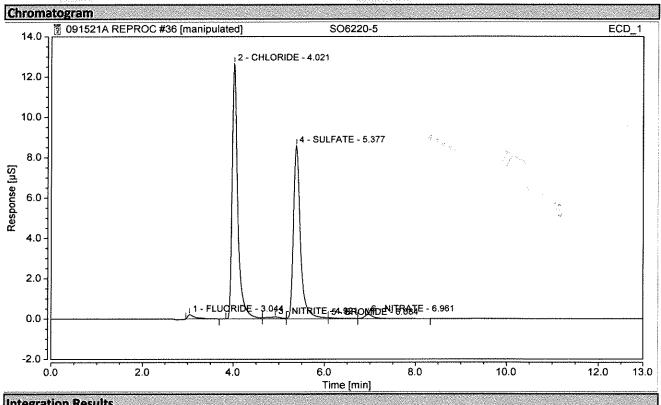
|       | 112 N. Deen tr       | min   | µS*min | μS     | %      | %      | mg/L   | %                |
|-------|----------------------|-------|--------|--------|--------|--------|--------|------------------|
| 1     | FLUORIDE             | 3.044 | 0.029  | 0.160  | 1.62   | 1.40   | 0.0621 | n.a.             |
| 2     | CHLORIDE             | 4.021 | 1.053  | 7.429  | 58.14  | 65.03  | 3.6945 | n.a.             |
| 3     | NITRITE              | 4.817 | 0.083  | 0.217  | 4.57   | 1.90   | 0.1348 | ്n.a.്           |
| 4     | SULFATE              | 5.381 | 0.624  | 3.530  | 34.48  | 30.91  | 2.9252 | n.a.             |
| 5     | BROMIDE              | 6.044 | 0.008  | 0.028  | 0.47   | 0.24   | 0.0396 | n.a.             |
| 6     | NITRATE              | 6.961 | 0.013  | 0.059  | 0.72   | 0.52   | 0.0461 | n.a.             |
| n.a.  | PHOSPHATE            | n.a.  | n.a.   | n.a.   | n.a.   | n.a.   | n.a.   | ് <b>ന.a</b> . ം |
| Total | ja kulo katelo kuloj |       | 4 814  | 11 423 | 100.00 | 100.00 |        |                  |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6220 1240            | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 36                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:28        | Sample Weight:    | 1.0    |  |  |  |  |  |



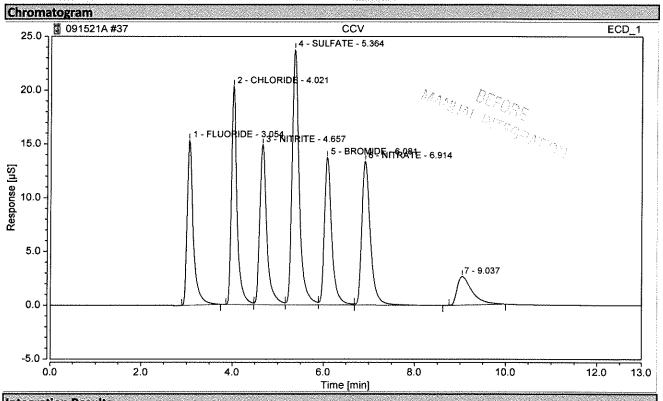
| No.    | Peak Name                                                                                                       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|-----------------------------------------------------------------------------------------------------------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|        | 1, 11 1 1                                                                                                       | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1 3/33 | FLUORIDE                                                                                                        | 3.044          | 0.039  | 0.210  | 1.10          | 0.96            | 0.0818 | n.a.      |
| 2      | CHLORIDE                                                                                                        | 4.021          | 1.819  | 12.675 | 51.97         | 58.17           | 6.3178 | n.a.      |
| 3      | NITRITE                                                                                                         | 4.921          | 0.033  | 0.095  | 0.95          | 0.44            | 0.0543 | n.a.      |
| 4 383  | SULFATE                                                                                                         | 5.377          | 1.558  | 8.600  | 44.54         | 39.47           | 7.3016 | n.a.      |
| n.a.   | BROMIDE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 5      | NITRATE                                                                                                         | 6.961          | 0.050  | 0.210  | 1.44          | 0.96            | 0.0956 | n.a.      |
| n.a.   | PHOSPHATE                                                                                                       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total  | a da ante a composition de la compositi |                | 3.499  | 21.790 | 100.00        | 100.00          |        |           |

|                      | Chromatogram and Res   | ults              |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220-5               | Run Time (min):   | 12.98  |
| Vial Number:         | 36                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 00:28        | Sample Weight:    | 1.0    |



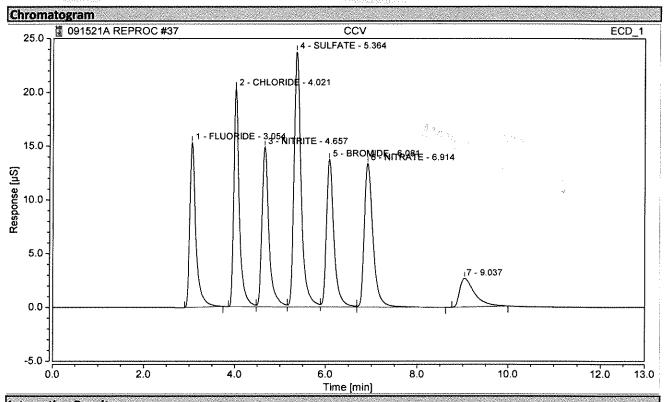
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1      | FLUORIDE  | 3.044          | 0.039  | 0.210  | 1.10          | 0.96            | 0.0818 | n.a.     |
| 2      | CHLORIDE  | 4.021          | 1.819  | 12.675 | 51.97         | 58.03           | 6.3178 | n.a.     |
| 3      | NITRITE   | 4.921          | 0.033  | 0.095  | 0.95          | 0.43            | 0.0543 | n.a.     |
| 4      | SULFATE   | 5.377          | 1.544  | 8.600  | 44.12         | 39.38           | 7.2336 | n.a.     |
| 5      | BROMIDE   | 6.084          | 0.015  | 0.051  | 0.42          | 0.23            | 0.0735 | n.a.     |
| 6 888  | NITRATE   | 6.961          | 0.050  | 0.210  | 1.44          | 0.96            | 0.0956 | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total: |           |                | 3.499  | 21.841 | 100.00        | 100.00          |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 37                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:43        | Sample Weight:    | 1.0    |  |  |  |  |  |

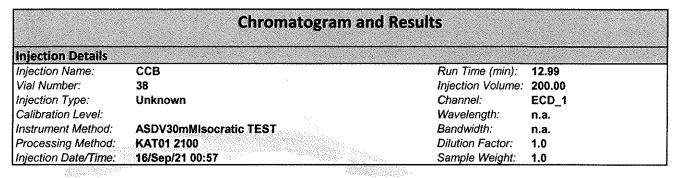


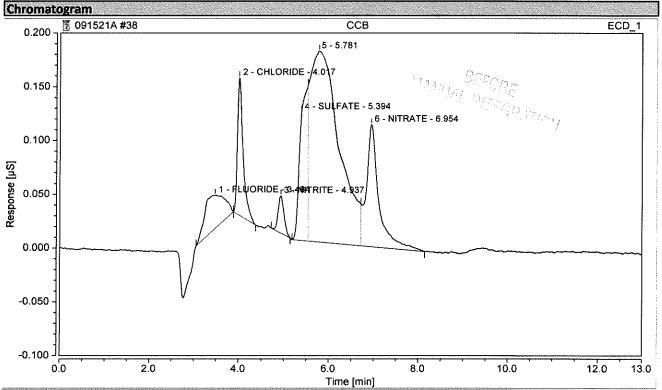
| No.    | Peak Name    | Retention Time | Area   | Height  | Relative Area | Bolotive Height | Amount  | A much Dave |
|--------|--------------|----------------|--------|---------|---------------|-----------------|---------|-------------|
| INO.   | Feat Indille | Retermon time  |        | neigni  | Relative Area | Relative Height | Amount  | Amnt.Dev    |
|        |              | min            | µS*min | μS      | %             | %               | mg/L    | %           |
| 1      | FLUORIDE     | 3.054          | 2.375  | 15.371  | 12.60         | 14.77           | 5.0319  | 0.6386      |
| 2      | CHLORIDE     | 4.021          | 2.896  | 20.313  | 15.36         | 19.52           | 10.0051 | 0.0512      |
| 3      | NITRITE      | 4.657          | 2.655  | 14.863  | 14.09         | 14.28           | 4.3257  | 8.1421      |
| 4      | SULFATE      | 5.364          | 4.360  | 23.744  | 23.13         | 22.82           | 20.4260 | 2.1302      |
| 5      | BROMIDE      | 6.081          | 2.605  | 13.735  | 13.82         | 13.20           | 19.7460 | -1.2698     |
| 6      | NITRATE      | 6.914          | 2.939  | 13.382  | 15.59         | 12.86           | 3.9349  | -1.6269     |
| n.a.   | PHOSPHATE    | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.        |
| Total: |              |                | 17.829 | 101.409 | 94.61         | 97.44           |         |             |

| Chromatogram and Results |                        |                                       |        |  |  |  |  |  |
|--------------------------|------------------------|---------------------------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                                       |        |  |  |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):                       | 12.98  |  |  |  |  |  |
| Vial Number:             | 37                     | Injection Volume:                     | 200.00 |  |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:                              | ECD_1  |  |  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:                           | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:                            | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:                      | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 00:43        | Sample Weight:                        | 1.0    |  |  |  |  |  |
| 843343444                |                        | · · · · · · · · · · · · · · · · · · · |        |  |  |  |  |  |

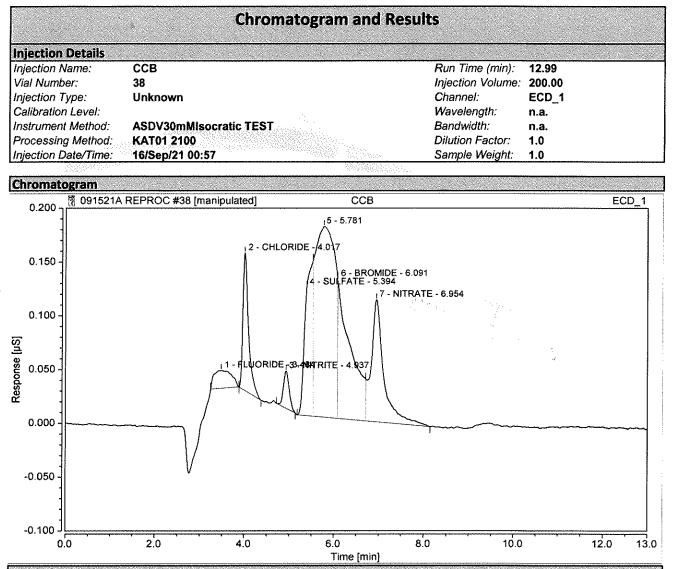


| Integ  | ration Results          |                |        |           |               |                 |         |           |
|--------|-------------------------|----------------|--------|-----------|---------------|-----------------|---------|-----------|
| No.    | Peak Name               | Retention Time | Area   | Height    | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|        | a shararan a            | min            | µS*min | μS        | %             | %               | mg/L    | %         |
| 1      | FLUORIDE                | 3.054          | 2.375  | 15.371    | 12.60         | 14.77           | 5.0319  | 0.6386    |
| 2      | CHLORIDE                | 4.021          | 2.896  | 20.313    | 15.36         | 19.52           | 10.0051 | 0.0512    |
| 3      | NITRITE                 | 4.657          | 2.655  | 14.863    | 14.09         | 14.28           | 4.3257  | 8.1421    |
| 4      | SULFATE                 | 5.364          | 4.360  | 23.744    | 23.13         | 22.82           | 20.4260 | 2.1302    |
| 5      | BROMIDE                 | 6.081          | 2.605  | 13.735    | 13.82         | 13.20           | 19.7460 | -1.2698   |
| 6      | NITRATE                 | 6.914          | 2.939  | 13.382    | 15.59         | 12.86           | 3.9349  | -1.6269   |
| n.a. 👘 | PHOSPHATE               | n.a.           | n.a.   | ેn.a. ેંે | n.a.          | n.a.            | n.a.    | n.a.      |
| Total: | Conferences Conferences |                | 17.829 | 101.409   | 94.61         | 97.44           |         |           |



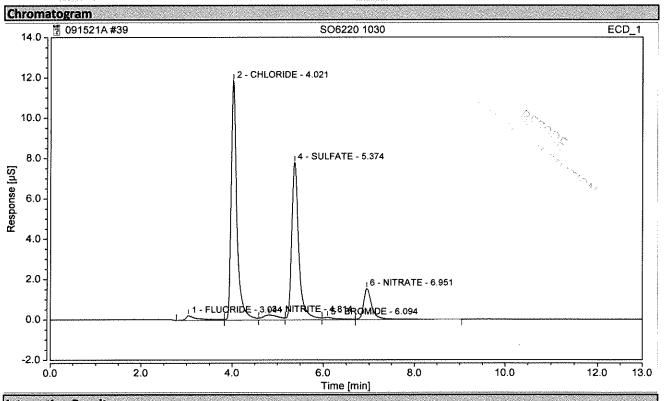


| Integ  | ration Results |                       |                |              |                    |                      |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1.888  | FLUORIDE       | 3.484                 | 0.016          | 0.031        | 6.90               | 5.09                 | 0.0349         | n.a.           |
| 2 2000 | CHLORIDE       | 4.017                 | 0.019          | 0.128        | 7.85               | 21.17                | 0.1542         | n.a.           |
| 3 388  | NITRITE        | 4.937                 | 0.005          | 0.035        | 2.18               | 5.73                 | 0.0085         | n.a.           |
| 4      | SULFATE        | 5.394                 | 0.028          | 0.119        | 11.67              | 19.78                | 0.1306         | n.a.           |
| n.a.   | BROMIDE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 6      | NITRATE        | 6.954                 | 0.037          | 0.114        | 15.67              | 18.82                | 0.0785         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total  |                |                       | 0.106          | 0.426        | 44.26              | 70.60                |                |                |



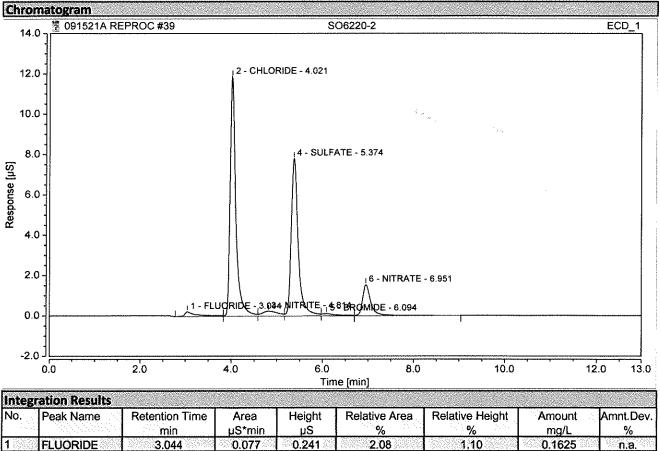
| Integ | ration Results                      |                       |                |              |                    |                   |                |                |
|-------|-------------------------------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| No.   | Peak Name                           | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1.33  | FLUORIDE                            | 3.484                 | 0.008          | 0.017        | 3.31               | 2.31              | 0.0161         | n.a.           |
| 2     | CHLORIDE                            | 4.017                 | 0.019          | 0.128        | 8.15               | 17.77             | 0.1542         | n.a.           |
| 3     | NITRITE                             | 4.937                 | 0.005          | 0.035        | 2.26               | 4.81              | 0.0085         | n.a.           |
| 4     | SULFATE                             | 5.394                 | 0.028          | 0.119        | 12.12              | 16.60             | 0.1306         | n.a.           |
| 6     | BROMIDE                             | 6.091                 | 0.043          | 0.130        | 18.60              | 18.05             | 0.1866         | n.a.           |
| 7     | NITRATE                             | 6.954                 | 0.037          | 0.114        | 16.27              | 15.79             | 0.0785         | n.a.           |
| n.a.  | PHOSPHATE                           | n <i>.</i> a.         | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total | <ul> <li>Fore a Superson</li> </ul> |                       | 0.140          | 0.542        | 60.71              | 75.33             |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | SO6220 1030            | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 39                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 16/Sep/21 01:11        | Sample Weight:    | 1.0    |  |  |  |  |  |



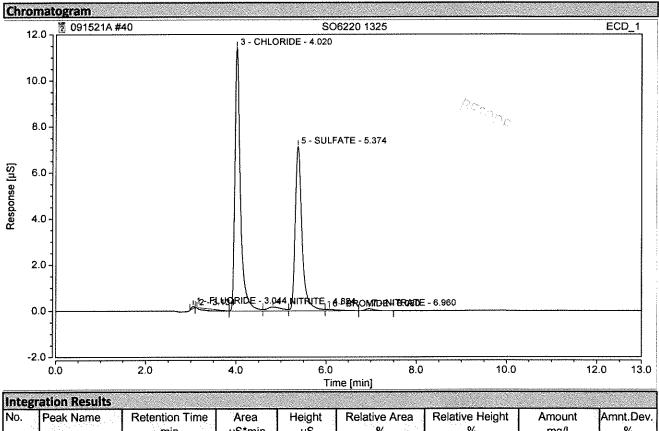
| <b>nne</b> s | ration Results |                | <u></u>       |        |               |                 |        |           |
|--------------|----------------|----------------|---------------|--------|---------------|-----------------|--------|-----------|
| No.          | Peak Name      | Retention Time | Area          | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|              |                | min            | <u>µS*min</u> | μS     | %             | %               | mg/L   | %         |
| 1            | FLUORIDE       | 3.044          | 0.077         | 0.241  | 2.08          | 1.10            | 0.1625 | n.a.      |
| 2            | CHLORIDE       | 4.021          | 1.721         | 11.885 | 46.65         | 54.39           | 5.9847 | n.a.      |
| 3            | NITRITE        | 4.814          | 0.102         | 0.247  | 2.77          | 1.13            | 0.1663 | n.a.      |
| 4            | SULFATE        | 5.374          | 1.409         | 7.819  | 38.17         | 35.78           | 6.6001 | n.a.      |
| 5            | BROMIDE        | 6.094          | 0.044         | 0.118  | 1.20          | 0.54            | 0.1692 | n.a.      |
| 6            | NITRATE        | 6.951          | 0.337         | 1.542  | 9.13          | 7.06            | 0.4768 | n.a.      |
| n.a.         | PHOSPHATE      | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:       |                |                | 3.690         | 21.851 | 100.00        | 100.00          |        |           |

| Chromatogram and Re    | sults                                                             |                                                                                              |
|------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                        |                                                                   |                                                                                              |
| SO6220-2               | Run Time (min):                                                   | 12.98                                                                                        |
| 39                     | Injection Volume:                                                 | 200.00                                                                                       |
| Unknown                | Channel:                                                          | ECD_1                                                                                        |
|                        | Wavelength:                                                       | n.a.                                                                                         |
| ASDV30mMIsocratic TEST | Bandwidth:                                                        | n.a.                                                                                         |
| KAT01 2100             | Dilution Factor:                                                  | 1.0                                                                                          |
| 16/Sep/21 01:11        | Sample Weight:                                                    | 1.0                                                                                          |
|                        | SO6220-2<br>39<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | 39Injection Volume:UnknownChannel:ASDV30mMIsocratic TESTBandwidth:KAT01 2100Dilution Factor: |



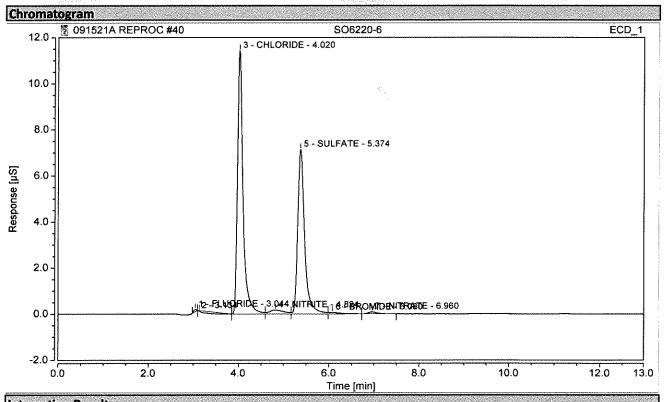
| Total: | - Medara e agreja | 2월 20일 전 2월 20일 전 20일 전 20일 전<br>일 전 20일<br>- 11일 전 20일 전 | 3.690  | 21.851 | 100.00             | 100.00          |        |               |
|--------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------------------|-----------------|--------|---------------|
| n.a.   | PHOSPHATE         | n.a.                                                                                                                                                | n.a.   | n.a.   | n.a.               | n.a.            | n.a.   | n.a.          |
| 6      | NITRATE           | 6.951                                                                                                                                               | 0.337  | 1.542  | 9.13               | 7.06            | 0.4768 | n.a.          |
| 5      | BROMIDE           | 6.094                                                                                                                                               | 0.044  | 0.118  | 1.20               | 0.54            | 0.1692 | n.a.          |
| 4      | SULFATE           | 5.374                                                                                                                                               | 1.409  | 7.819  | 38.17              | 35.78           | 6.6001 | <u>n.a.</u>   |
| 3      | NITRITE           | 4.814                                                                                                                                               | 0.102  | 0.247  | 2.77               | 1.13            | 0.1663 | n.a.          |
| 2      | CHLORIDE          | 4.021                                                                                                                                               | 1.721  | 11.885 | 46.65              | 54.39           | 5.9847 | n.a.          |
| 1      | FLUORIDE          | 3.044                                                                                                                                               | 0.077  | 0.241  | 2.08               | 1.10            | 0.1625 | n.a.          |
| NU.    | Peak Name         | min                                                                                                                                                 | µS*min | µS     | Keialive Alea<br>% | Kelative Height | mg/L   | Ammedev.<br>% |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220 1325            | Run Time (min):   | 12.98  |
| Vial Number:         | 40                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 01:25        | Sample Weight:    | 1.0    |



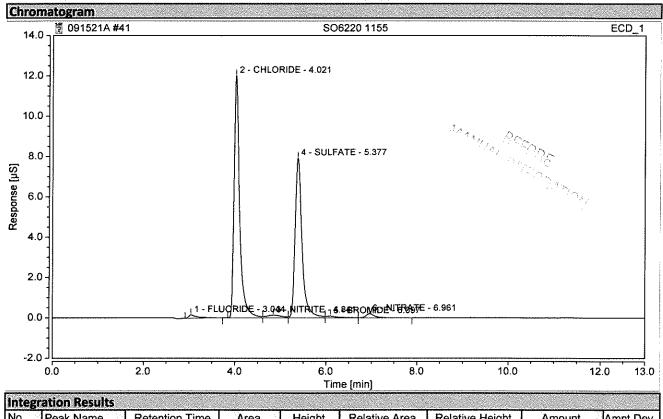
| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1.888 | FLUORIDE  | 3.044                 | 0.006          | 0.088        | 0.21               | 0.46                 | 0.0135         | n.a.           |
| 3     | CHLORIDE  | 4.020                 | 1.632          | 11.422       | 53.59              | 60.18                | 5.6787         | n.a.           |
| 4.38  | NITRITE   | 4.824                 | 0.062          | 0.163        | 2.03               | 0.86                 | 0.1010         | n.a.           |
| 5     | SULFATE   | 5.374                 | 1.267          | 7.131        | 41.60              | 37.57                | 5.9358         | n.a.           |
| 6     | BROMIDE   | 6.080                 | 0.020          | 0.063        | 0.66               | 0.33                 | 0.0906         | n.a.           |
| 7     | NITRATE   | 6.960                 | 0.019          | 0.087        | 0.64               | 0.46                 | 0.0545         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a. 🚿         | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total | •         |                       | 3.007          | 18.954       | 98.72              | 99.87                |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220-6               | Run Time (min):   | 12.98  |
| Vial Number:         | 40                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 01:25        | Sample Weight:    | 1.0    |



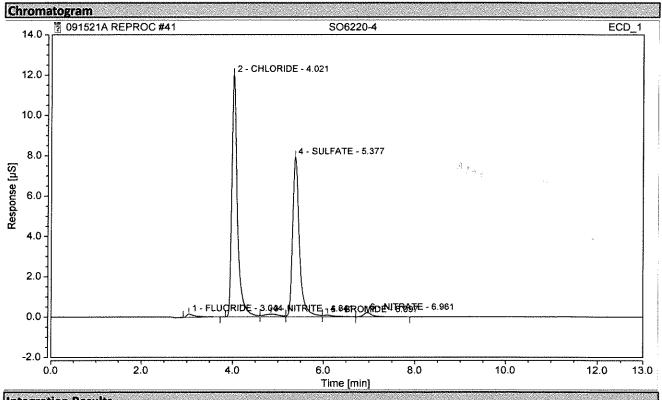
| Integ  | ration Results |                       |                |              |                    |                      |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1.000  | FLUORIDE       | 3.044                 | 0.006          | 0.088        | 0.21               | 0.46                 | 0.0135         | n.a.           |
| 3      | CHLORIDE       | 4.020                 | 1.632          | 11.422       | 53.59              | 60.18                | 5.6787         | n.a.           |
| 4      | NITRITE        | 4.824                 | 0.062          | 0.163        | 2.03               | 0.86                 | 0.1010         | n.a.           |
| 5      | SULFATE        | 5.374                 | 1.267          | 7.131        | 41.60              | 37.57                | 5.9358         | n.a.           |
| 6      | BROMIDE        | 6.080                 | 0.020          | 0.063        | 0.66               | 0.33                 | 0.0906         | n.a.           |
| 7      | NITRATE        | 6.960                 | 0.019          | 0.087        | 0.64               | 0.46                 | 0.0545         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total: |                |                       | 3.007          | 18.954       | 98.72              | 99.87                |                |                |

|                      | Chromatogram and Res   | ults              |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220 1155            | Run Time (min):   | 12.98  |
| Vial Number:         | <b>41</b>              | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 01:40        | Sample Weight:    | 1.0    |



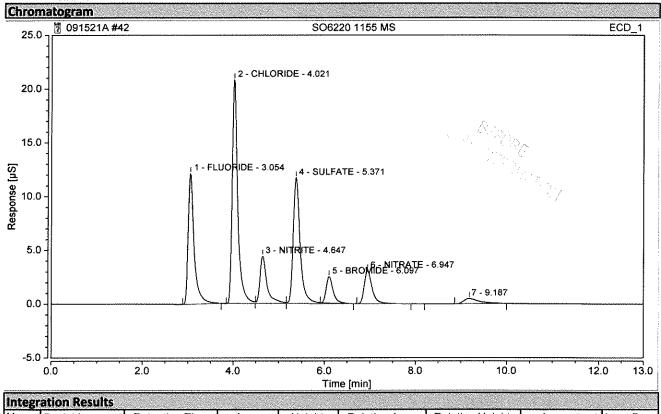
| No.   | Peak Name | Retention Time min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|--------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1     | FLUORIDE  | 3.044              | 0.036          | 0.166        | 1.09               | 0.81              | 0.0755         | n.a.           |
| 2     | CHLORIDE  | 4.021              | 1.717          | 12.015       | 52.28              | 58.52             | 5.9706         | n.a.           |
| 3.369 | NITRITE   | 4.841              | 0.051          | 0.130        | 1.56               | 0.63              | 0.0834         | n.a.           |
| 4.88  | SULFATE   | 5.377              | 1.407          | 7.923        | 42.84              | 38.59             | 6.5929         | n.a.           |
| 5     | BROMIDE   | 6.097              | 0.027          | 0.090        | 0.82               | 0.44              | 0.1296         | n.a.           |
| 6     | NITRATE   | 6.961              | 0.047          | 0.209        | 1.42               | 1.02              | 0.0906         | n.a.           |
| n.a.  | PHOSPHATE | n.a.               | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total |           |                    | 3.285          | 20.533       | 100.00             | 100.00            |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220-4               | Run Time (min):   | 12.98  |
| Vial Number:         | 41                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 01:40        | Sample Weight:    | 1.0    |



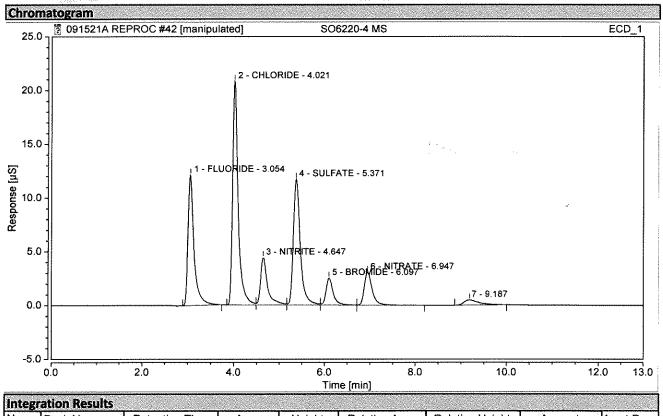
| Integ  | ration Results |                       |                |              |                    |                   |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
| 13388  | FLUORIDE       | 3.044                 | 0.036          | 0.166        | 1.09               | 0.81              | 0.0755         | n.a.           |
| 2      | CHLORIDE       | 4.021                 | 1.717          | 12.015       | 52.28              | 58.52             | 5.9706         | n.a.           |
| 3      | NITRITE        | 4.841                 | 0.051          | 0.130        | 1.56               | 0.63              | 0.0834         | n.a.           |
| 4      | SULFATE        | 5.377                 | 1.407          | 7.923        | 42.84              | 38.59             | 6.5929         | n.a.           |
| 5      | BROMIDE        | 6.097                 | 0.027          | 0.090        | 0.82               | 0.44              | 0.1296         | n.a.           |
| 6      | NITRATE        | 6.961                 | 0.047          | 0.209        | 1.42               | 1.02              | 0.0906         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: |                |                       | 3.285          | 20.533       | 100.00             | 100.00            |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO6220 1155 MS         | Run Time (min):   | 12.99  |
| Vial Number:         | 42                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 16/Sep/21 01:54        | Sample Weight:    | 1.0    |



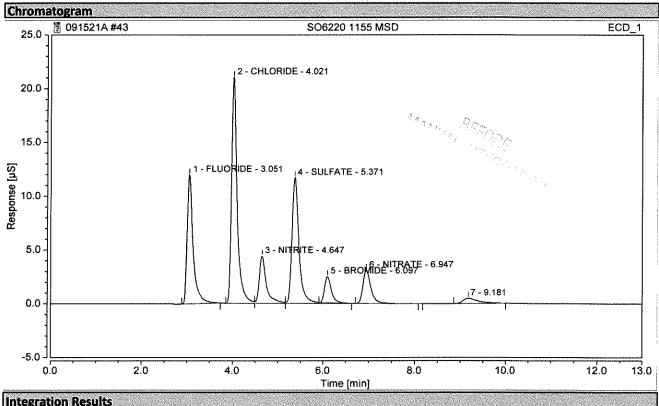
| No.    | Peak Name | Retention Time | Area<br>µS*min | Height<br>µS | Relative Area % | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|----------------|----------------|--------------|-----------------|-------------------|----------------|----------------|
| 1 3883 | FLUORIDE  | 3.054          | 1.834          | 12.162       | 20.48           | 22.07             | 3.8861         | n.a.           |
| 2      | CHLORIDE  | 4.021          | 2.965          | 20.814       | 33.11           | 37.77             | 10.2426        | п.а.           |
| 3      | NITRITE   | 4,647          | 0.794          | 4.422        | 8.86            | 8.02              | 1.2930         | n.a.           |
| 4      | SULFATE   | 5.371          | 2.140          | 11.712       | 23.90           | 21.26             | 10.0248        | n.a.           |
| 5 3083 | BROMIDE   | 6.097          | 0.423          | 2.450        | 4.72            | 4.45              | 3.5216         | n.a.           |
| 6      | NITRATE   | 6.947          | 0.617          | 3.063        | 6.89            | 5.56              | 0.8486         | n.a.           |
| n.a.   | PHOSPHATE | n.a.           | n.a.           | n.a.         | n.a.            | n.a.              | n.a.           | n.a.           |
| Total: |           |                | 8.772          | 54.623       | 97.96           | 99.13             |                |                |

| Chromatogram and Re    | sults                                                                                                                                                                                                                                 |                                                                                              |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                        | en al la constantia de la constantia<br>1976 - Constantia de la constantia de la constantia de la constantia de la<br>1976 - Constantia de la co |                                                                                              |
| SO6220-4 MS            | Run Time (min):                                                                                                                                                                                                                       | 12.99                                                                                        |
| 42                     | Injection Volume:                                                                                                                                                                                                                     | 200.00                                                                                       |
| Unknown                | Channel:                                                                                                                                                                                                                              | ECD_1                                                                                        |
|                        | Wavelength:                                                                                                                                                                                                                           | n.a.                                                                                         |
| ASDV30mMIsocratic TEST | Bandwidth:                                                                                                                                                                                                                            | n.a.                                                                                         |
| KAT01 2100             | Dilution Factor:                                                                                                                                                                                                                      | 1.0                                                                                          |
| 16/Sep/21 01:54        | Sample Weight:                                                                                                                                                                                                                        | 1.0                                                                                          |
|                        | SO6220-4 MS<br>42<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100                                                                                                                                                                  | 42Injection Volume:UnknownChannel:ASDV30mMisocratic TESTBandwidth:KAT01 2100Dilution Factor: |



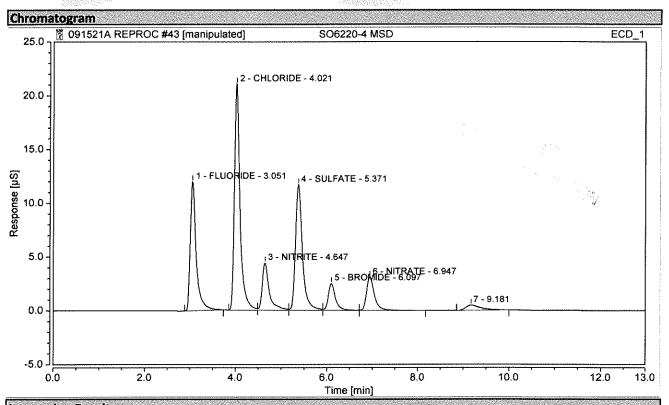
| No.   | Peak Name | Retention Time                        | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|-------|-----------|---------------------------------------|--------|--------|---------------|-----------------|---------|----------|
|       |           | min                                   | µS*min | μS     | %             | %               | mg/L    | %        |
| 1 888 | FLUORIDE  | 3.054                                 | 1.834  | 12.162 | 20.48         | 22.04           | 3.8861  | n.a.     |
| 2 200 | CHLORIDE  | 4.021                                 | 2.965  | 20.814 | 33.11         | 37.72           | 10.2426 | n.a.     |
| 3 🕸   | NITRITE   | 4.647                                 | 0.794  | 4.422  | 8.86          | 8.01            | 1.2930  | n.a.     |
| 4     | SULFATE   | 5.371                                 | 2.092  | 11.712 | 23.36         | 21.22           | 9.7989  | n.a.     |
| 5     | BROMIDE   | 6.097                                 | 0.463  | 2.523  | 5.17          | 4.57            | 3.6265  | n.a.     |
| 6     | NITRATE   | 6.947                                 | 0.625  | 3.072  | 6.98          | 5.57            | 0.8591  | n.a.     |
| n.a.  | PHOSPHATE | n.a.                                  | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total |           | 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 | 8.772  | 54.705 | 97,96         | 99.13           |         |          |

| ngoverning of some some some some some<br>State of the Property of the some source of the so-<br>the many source of the Property of the source of th | Chromatogram and Re    | esults            |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------|--------|
| Injection Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |                   |        |
| Injection Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SO6220 1155 MSD        | Run Time (min):   | 12.98  |
| Vial Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 43                     | Injection Volume: | 200.00 |
| Injection Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | Wavelength:       | n.a.   |
| Instrument Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16/Sep/21 02:08        | Sample Weight:    | 1.0    |



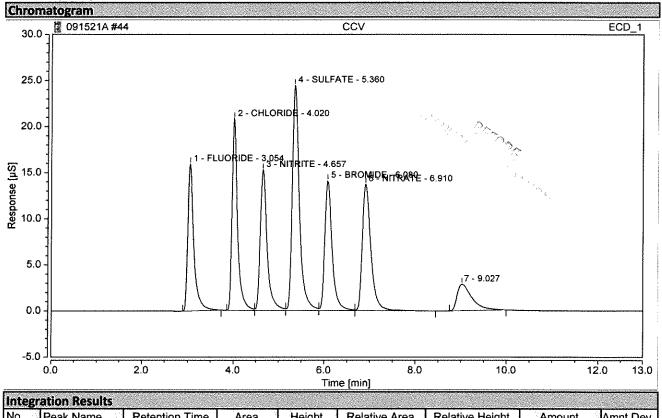
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|---------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L    | %        |
| 1      | FLUORIDE  | 3.051          | 1.813  | 12.000 | 20.23         | 21.77           | 3.8415  | n.a.     |
| 2      | CHLORIDE  | 4.021          | 3.003  | 21.024 | 33.50         | 38.14           | 10.3721 | n.a.     |
| 3388   | NITRITE   | 4.647          | 0.788  | 4.404  | 8.79          | 7.99            | 1.2839  | n.a.     |
| 4300   | SULFATE   | 5.371          | 2.129  | 11.685 | 23.75         | 21.20           | 9.9746  | n.a.     |
| 5      | BROMIDE   | 6.097          | 0.422  | 2.438  | 4.71          | 4.42            | 3.5047  | n.a.     |
| 6      | NITRATE   | 6.947          | 0.624  | 3.086  | 6.96          | 5.60            | 0.8578  | n.a.     |
| n.a. 🖄 | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total  |           |                | 8.779  | 54.637 | 97.95         | 99.13           |         |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO6220-4 MSD           | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 43                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 16/Sep/21 02:08        | Sample Weight:    | 1.0    |  |  |  |



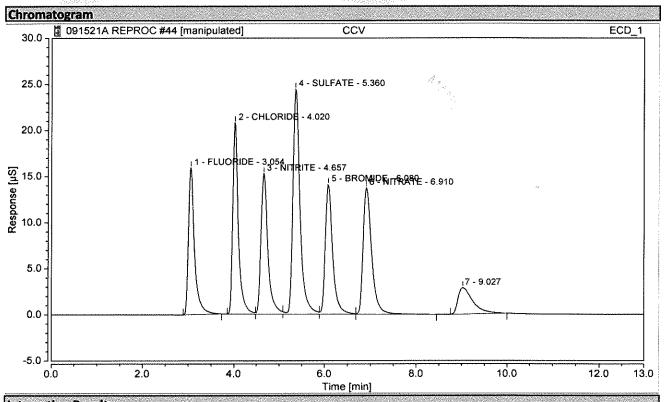
| No.   | Peak Name                              | Retention Time<br>min | Area<br>uS*min | Height<br>⊔S | Relative Area % | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|----------------------------------------|-----------------------|----------------|--------------|-----------------|-------------------|----------------|----------------|
| 1.88  | FLUORIDE                               | 3.051                 | 1.813          | 12.000       | 20.23           | 21.74             | 3.8415         | n.a.           |
| 2     | CHLORIDE                               | 4.021                 | 3.003          | 21.024       | 33.50           | 38.09             | 10.3721        | n.a.           |
| 3     | NITRITE                                | 4.647                 | 0.788          | 4.404        | 8.79            | 7.98              | 1.2839         | n.a.           |
| 4     | SULFATE                                | 5.371                 | 2.085          | 11.685       | 23.26           | 21.17             | 9.7663         | n.a.           |
| 5     | BROMIDE                                | 6.097                 | 0.461          | 2.509        | 5.14            | 4.55              | 3.6072         | n.a.           |
| 6     | NITRATE                                | 6.947                 | 0.630          | 3.093        | 7.02            | 5.60              | 0.8655         | n.a.           |
| n.a.  | PHOSPHATE                              | n.a.                  | n.a.           | n,a.         | n.a.            | n.a.              | n.a.           | n.a.           |
| Total | • •••••••••••••••••••••••••••••••••••• |                       | 8.779          | 54.715       | 97.95           | 99.13             |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 44                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 16/Sep/21 02:22        | Sample Weight:    | 1.0    |  |  |  |

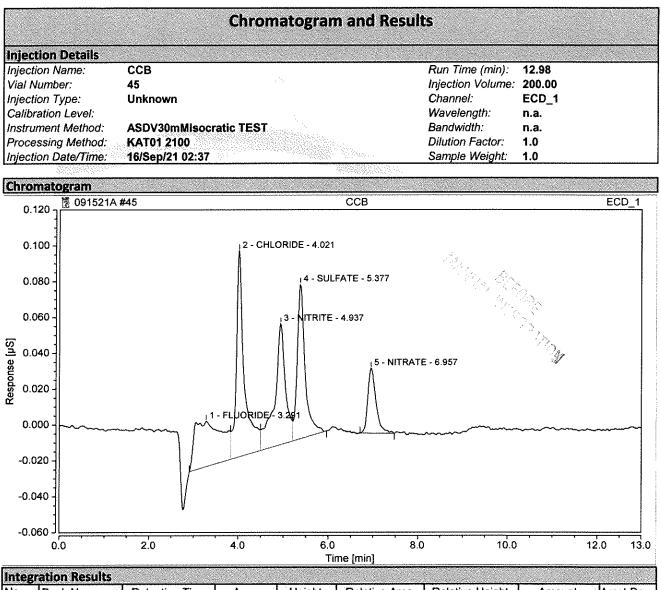


| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
|        | FLUORIDE  | 3.054                 | 2.431          | 15.953       | 12.59              | 14.89             | 5.1516         | 3.0322         |
| 2      | CHLORIDE  | 4.020                 | 2.954          | 20.773       | 15.30              | 19.39             | 10.2040        | 2.0405         |
| 3      | NITRITE   | 4.657                 | 2.708          | 15.252       | 14.03              | 14.24             | 4.4121         | 10.3033        |
| 4      | SULFATE   | 5.360                 | 4.454          | 24.436       | 23.07              | 22.81             | 20.8653        | 4.3263         |
| 5      | BROMIDE   | 6.080                 | 2.667          | 14.097       | 13.81              | 13.16             | 20.2665        | 1.3326         |
| 6      | NITRATE   | 6.910                 | 3.005          | 13.732       | 15.56              | 12.82             | 4.0231         | 0.5786         |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: |           |                       | 18.218         | 104.242      | 94.36              | 97.32             |                |                |

| Chromatogram and Results Injection Details |                        |                   |        |  |  |  |
|--------------------------------------------|------------------------|-------------------|--------|--|--|--|
|                                            |                        |                   |        |  |  |  |
| Vial Number:                               | 44                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:                            | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:                         | 06                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:                         | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:                         | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:                       | 16/Sep/21 02:22        | Sample Weight:    | 1.0    |  |  |  |

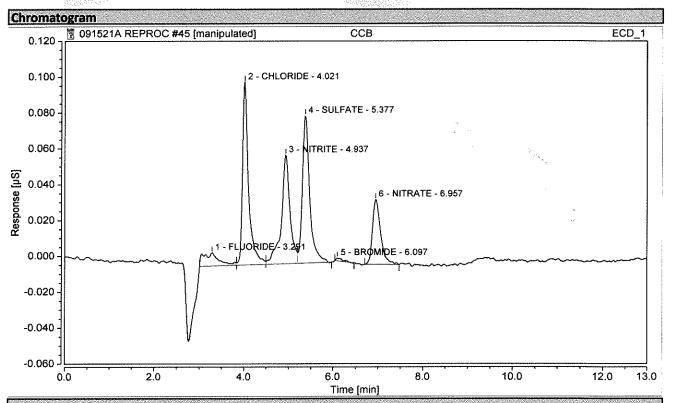


|       | ration Results |                |        | T       | <b>.</b>      |                 |         |           |
|-------|----------------|----------------|--------|---------|---------------|-----------------|---------|-----------|
| No.   | Peak Name      | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|       |                | min            | µS*min | μS      | %             | %               | mg/L    | %         |
| 1 🛞   | FLUORIDE       | 3.054          | 2.431  | 15.953  | 12.59         | 14.89           | 5.1516  | 3.0322    |
| 2     | CHLORIDE       | 4.020          | 2.954  | 20.773  | 15.30         | 19.39           | 10.2040 | 2.0405    |
| 3 000 | NITRITE        | 4.657          | 2.692  | 15.252  | 13.94         | 14.24           | 4.3860  | 9.6499    |
| 4     | SULFATE        | 5.360          | 4.470  | 24.436  | 23.15         | 22.81           | 20.9404 | 4.7021    |
| 5 888 | BROMIDE        | 6.080          | 2.667  | 14.097  | 13.81         | 13.16           | 20.2665 | 1.3326    |
| 6     | NITRATE        | 6.910          | 3.005  | 13.732  | 15.56         | 12.82           | 4.0231  | 0.5786    |
| n.a.  | PHOSPHATE      | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.      |
| Total |                |                | 18.218 | 104.242 | 94.36         | 97.32           |         |           |



| No.    | Deels Mamo          | Detention Time | Aree   | Loight   | Relative Area | Relative Height | Amount | Ampt Dou |
|--------|---------------------|----------------|--------|----------|---------------|-----------------|--------|----------|
| INO.   | Peak Name           | Retention Time | Area   | Height   |               | Relative neight | Amount | Amnt.Dev |
|        |                     | min            | µS*min | μS       | %             | %               | mg/L   | %        |
| 1.8/83 | FLUORIDE            | 3.291          | 0.018  | 0.025    | 20.68         | 7.68            | 0.0381 | n.a.     |
| 2      | CHLORIDE            | 4.021          | 0.024  | 0.115    | 27.98         | 34.85           | 0.1732 | n.a.     |
| 3      | NITRITE             | 4.937          | 0.019  | 0.067    | 22.01         | 20.41           | 0.0311 | n.a.     |
| 4      | SULFATE             | 5.377          | 0.018  | 0.086    | 20.40         | 26.09           | 0.0830 | n.a.     |
| n.a.   | BROMIDE             | n.a.           | n.a.   | n.a.     | n.a.          | n.a.            | n.a.   | n.a.     |
| 5      | NITRATE             | 6.957          | 0.008  | 0.036    | 8.92          | 10.97           | 0.0390 | n.a.     |
| n.a. 🗟 | PHOSPHATE           | n.a.           | n.a.   | S n.a. 🔍 | n.a.          | n.a.            | n.a.   | n.a.     |
| Total  | - Albert States and |                | 0.087  | 0.330    | 100.00        | 100.00          |        |          |

| Chromatogram and Re    | sults                                                        |                                                                                              |
|------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                        |                                                              |                                                                                              |
| ССВ                    | Run Time (min):                                              | 12.98                                                                                        |
| 45                     | Injection Volume:                                            | 200.00                                                                                       |
| Unknown                | Channel:                                                     | ECD_1                                                                                        |
|                        | Wavelength:                                                  | n.a.                                                                                         |
| ASDV30mMIsocratic TEST | Bandwidth:                                                   | n.a.                                                                                         |
| KAT01 2100             | Dilution Factor:                                             | 1.0                                                                                          |
| 16/Sep/21 02:37        | Sample Weight:                                               | 1.0                                                                                          |
|                        | CCB<br>45<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | 45Injection Volume:UnknownChannel:ASDV30mMIsocratic TESTBandwidth:KAT01 2100Dilution Factor: |



| Inte  | gration Results              |                       |                |              |                    |                      |                |                |
|-------|------------------------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.   | Peak Name                    | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1.333 | FLUORIDE                     | 3.291                 | 0.003          | 0.007        | 5.38               | 2.56                 | 0.0065         | n.a.           |
| 2.80  | CHLORIDE                     | 4.021                 | 0.016          | 0.102        | 28.65              | 35.19                | 0.1458         | n.a.           |
| 3     | NITRITE                      | 4.937                 | 0.014          | 0.060        | 24.19              | 20.86                | 0.0224         | n.a.           |
| 4     | SULFATE                      | 5.377                 | 0.016          | 0.082        | 27.71              | 28.36                | 0.0739         | n.a.           |
| 5     | BROMIDE                      | 6.097                 | 0.000          | 0.002        | 0.46               | 0.54                 | 0.0022         | n.a.           |
| 6     | NITRATE                      | 6.957                 | 0.008          | 0.036        | 13.61              | 12.50                | 0.0390         | n.a.           |
| n.a.  | PHOSPHATE                    | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Tota  | li - Straggrad Alfreda<br>Li |                       | 0.057          | 0.290        | 100.00             | 100.00               |                |                |

-

### **Calibration Batch Report**

| Sequence: 083121A CAL Injection Volume: 200.00            |  |
|-----------------------------------------------------------|--|
| Sequence: 083121A CAL Injection Volume: 200.00            |  |
| Sequence: 083121A CAL Injection Volume: 200.00            |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
| Instrument Method: ASDV5MLCUPS Operator: Katahdin Ana     |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
|                                                           |  |
| Ini. Date / Time: 31-Aug-2021 / 17:56 Run Time: 12.993833 |  |
| Inj. Date / Time: 31-Aug-2021 / 17:56 Run Time: 12.993833 |  |

| Calibration Summary |           |               |        |                |               |               |                 |
|---------------------|-----------|---------------|--------|----------------|---------------|---------------|-----------------|
| Peak Name           | Eval.Type | Cal.Type      | Points | Offset<br>(C0) | Slope<br>(C1) | Curve<br>(C2) | Coeff.Det.<br>% |
| FLUORIDE            | Area      | Lin           | 6.000  | i‰: 0.000      | 0.526         | 0.000         | 99.7217         |
| CHLORIDE            | Area      | in, WithOffse | 7.000  | -0.008         | 0.325         | 0.000         | 99.9739         |
| NITRITE             | Area      | Lin           | 6.000  | 0.000          | 0.695         | 0.000         | 99.8794         |
| SULFATE             | Area      | Lin           | 7.000  | 0.000          | 0.242         | 0.000         | 99.9905         |
| BROMIDE             | Height    | Lin           | 6.000  | 0.000          | 0.734         | 0.000         | 99.9675         |
| NITRATE             | Area      | in, WithOffse | 7.000  | -0.012         | 0.826         | 0.000         | 99,9923         |
|                     |           | AVERAGE:      |        | -0.0034        | 0.5579        | 0.0000        | 99.9209         |

| Injection Name | Ret.Time | Area     | Height   | Amount   | 7.00 - | £      | DE External | ECD_1        |
|----------------|----------|----------|----------|----------|--------|--------|-------------|--------------|
|                | min      | µS*min   | μS       | mg/L     | 6.00 - | µS*min |             | $\neq$       |
| CHLORIDE       | CHLORIDE | CHLORIDE | CHLORIDE | CHLORIDE | 0.00 - |        |             |              |
|                | ECD_1    | ECD_1    | ECD_1    | ECD_1    | 1      |        |             |              |
| CAL 1          | 4.034    | 0.0045   | 0.031    | 0.039    | 4.00 - |        |             |              |
| CAL 2          | 4.034    | 0.0261   | 0.175    | 0.106    | 1      |        | ×           |              |
| CAL 3          | 4.034    | 0.2526   | 1.884    | 0.802    | 2.00 - |        |             | an shekara a |
| CAL 4          | 4.034    | 0.6935   | 5.136    | 2.157    | 2.00 - | X      |             |              |
| CAL 5          | 4.034    | 1.4164   | 10.395   |          |        | X      |             | mg/L         |
| CAL 6          | 4.031    | 2.8556   | 20.827   | 8.802    | 0.00 ] |        |             |              |
| CAL 7          | 4.034    | 5.8397   | 41.807   | 17.974   | 0      | .0     | 12.5        | 25.0         |
| Average        | 4.033    |          |          |          |        |        |             |              |
| Rel. Std. Dev. | 0.031 %  |          |          |          |        |        |             |              |
|                |          |          | 하는 것 같아  |          | Sec. 1 |        |             |              |

| Injection Name | Ret.Time<br>min<br>NITRATE | Area<br>µS*min<br>NITRATE | Height<br>µS<br>NITRATE | Amount<br>mg/L<br>NITRATE | 7.00 -<br>6.00 - | NITRATE<br>µS*min | External | ECD_1                   |
|----------------|----------------------------|---------------------------|-------------------------|---------------------------|------------------|-------------------|----------|-------------------------|
|                | ECD_1                      | ECD_1                     | ECD_1                   | ECD_1                     |                  |                   |          |                         |
| CAL 1          | 7.011                      | 0.0082                    | 0.035                   | 0.024                     | 4.00 -           |                   |          | · ·                     |
| CAL 2          | 7.011                      | 0.0265                    | 0.127                   | 0.047                     |                  |                   | $\star$  | $(-1)^{-1} = (-1)^{-1}$ |
| CAL 3          | 7.004                      | 0.2564                    | 1.301                   | 0.325                     | 2.00 -           |                   |          |                         |
| CAL 4          | 6.994                      | 0.7128                    | 3.556                   | 0.877                     | 2.00 -           | X                 |          |                         |
| CAL 5          | 6.981                      | 1.4721                    | 7.151                   | 1.796                     |                  | X                 |          | mg/L                    |
| CAL 6          | 6.957                      | 2.9835                    | 13.912                  | 3.626                     | 0.00 J           | ¥                 |          | , ng/L                  |
| CAL 7          | 6.921                      | 6.0048                    | 26.224                  | 7.283                     | 0.               | 00                | 5.00     | 9.00                    |
| Average        | 6.982                      |                           |                         |                           |                  |                   |          |                         |
| Rel. Std. Dev. | 0.476 %                    |                           |                         |                           |                  |                   |          |                         |
|                |                            |                           | 경험감사가 가장                |                           |                  |                   |          |                         |

| Injection Name | Ret.Time | Area    | Height  | Amount  | 6.00 - | NITRITE | External | ECD_1 |
|----------------|----------|---------|---------|---------|--------|---------|----------|-------|
|                | min      | µS*min  | μS      | mg/L    | 0.00   | µS*min  |          | X     |
| NITRITE        | NITRITE  | NITRITE | NITRITE | NITRITE |        |         |          |       |
|                | ECD_1    | ECD_1   | ECD_1   | ECD_1   | 4.00 - | 1       | 1 1 M    |       |
| CAL 1          | n.a.     | n.a.    | n.a.    | n.a.    | -      |         |          |       |
| CAL 2          | 4.674    | 0.0221  | 0.114   | 0.032   |        |         | $\star$  |       |
| CAL 3          | 4.671    | 0.2418  | 1.565   | 0.348   | 2.00 - |         | /        |       |
| CAL 4          | 4.671    | 0.6591  | 4.201   | 0.948   |        | ⊀       |          |       |

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

| Ocquerice. 000 12 IA OAL |         |        |        |       |          |                                                   |      |
|--------------------------|---------|--------|--------|-------|----------|---------------------------------------------------|------|
| CAL 5                    | 4.674   | 1.3297 | 8.181  | 1.914 |          |                                                   | mg/L |
| CAL 6                    | 4.677   | 2.5727 | 15.131 | 3.702 | 0.00 - 2 | <del>, , , , , , , , , , , , , , , , , , , </del> |      |
| CAL 7                    | 4.684   | 4.8209 | 26.707 | 6.938 | 0.00     | 5.00                                              | 9.00 |
| Average                  | 4.675   |        |        |       |          |                                                   |      |
| Rel. Std. Dev.           | 0.107 % |        |        |       |          |                                                   |      |

| Injection Name | Ret.Time  | Area     | Height     | Amount    | 1.20 PHOS | PHATE                                         | ECD_1     |
|----------------|-----------|----------|------------|-----------|-----------|-----------------------------------------------|-----------|
|                | min       | µS*min   | μS         | mg/L      | Unit?     |                                               | ·.        |
| PHOSPHATE      | PHOSPHATE | PHOSPHAT | EPHOSPHATE | PHOSPHATE | 1.00 -    |                                               |           |
|                | ECD_1     | ECD_1    | ECD_1      | ECD_1     |           |                                               |           |
| CAL 1          | n.a.      | n.a.     | n.a.       | n.a.      |           |                                               |           |
| CAL 2          | n.a.      | n.a.     | n.a.       | n.a.      | 0.50      |                                               |           |
| CAL 3          | n.a.      | n.a.     | n.a.       | n.a. 🔬    | -         |                                               |           |
| CAL 4          | n.a.      | n.a.     | n.a.       | n.a.      |           |                                               |           |
| CAL 5          | n.a.      | n.a.     | n.a.       | n.a.      |           |                                               | mg/L      |
| CAL 6          | n.a.      | n.a.     | n.a.       | n.a.      | 0.00      | <u>, , , , , , , , , , , , , , , , , , , </u> |           |
| CAL 7          | n.a.      | n.a.     | n.a.       | n.a.      | 0.0       | 5.0                                           | 10.0 12.0 |
| Average        | #DIV/0!   |          |            |           |           |                                               |           |

Rel. Std. Dev. #DIV/0!

| Injection Name<br>BROMIDE | Ret.Time<br>min<br>BROMIDE | Area<br>µS*min<br>BROMIDE | Height<br>µS<br>BROMIDE   | Amount<br>mg/L<br>BROMIDE | 35.0 ¬ r | BROMIDE<br>µS | External | ECD_1  |
|---------------------------|----------------------------|---------------------------|---------------------------|---------------------------|----------|---------------|----------|--------|
| ÷.                        | ECD_1                      | ECD_1                     | ECD_1                     | ECD_1                     |          |               |          |        |
| CAL 1                     | n.a.                       | n.a.                      | n.a.                      | n.a.                      | 20.0 -   |               |          |        |
| CAL 2                     | 6.144                      | 0.0185                    | 0.095                     | 0.130                     |          |               | 4        |        |
| CAL 3                     | 6.137                      | 0.2220                    | 1.261                     | 1.719                     | 10.0     |               |          |        |
| CAL 4                     | 6.134                      | 0.6055                    | 3.477                     | 4.740                     |          | ×             |          |        |
| CAL 5                     | 6.127                      | 1.2577                    | 7.099                     | 9.677                     |          | ×.            |          | mg/L   |
| CAL 6                     | 6.117                      | 2.5482                    | 14.093                    | 19.211                    | 0.0 J    | <u> </u>      |          | IIIG/L |
| CAL 7                     | 6.097                      | 5.2194                    | 27.705                    | 37.766                    | 0.0      | )             | 20.0     | 45.0   |
| Average                   | 6.126                      |                           |                           |                           |          |               |          |        |
| Rel. Std. Dev.            | 0.275 %                    |                           | 2111122-11<br>21112-11-11 |                           |          |               |          |        |

SULFATE External ECD<sub>1</sub> Amount Injection Name **Ret.Time** Area Height 11.0 µS\*min 10.0 µS\*min μS mg/L mìn SULFATE SULFATE SULFATE SULFATE SULFATE ECD\_1 7.5 ECD\_1 ECD\_1 ECD\_1 CAL 1 5.454 0.0090 0.048 0.037 CAL 2 5.454 0.0339 0.184 0.140 5.0 CAL 3 5.451 0.3766 2.165 1.559 CAL 4 5.447 1.0175 5.855 4.211 2.5 CAL 5 11.737 2.0721 8.576 5.441 mg/L 17.285 CAL 6 5.431 4.1763 23.325 0.0 20.0 CAL 7 5.411 8.6085 45.581 35.629 0.0 45.0 Average 5.441

Rel. Std. Dev. 0.290 %

| Injection Name | Ret.Time | Area     | Height   | Amount   | 6.00   | FLUORIDE Extern | nal ECD_1 |
|----------------|----------|----------|----------|----------|--------|-----------------|-----------|
|                | min      | µS*min   | μS       | mg/L     |        | µS*min          |           |
| FLUORIDE       | FLUORIDE | FLUORIDE | FLUORIDE | FLUORIDE | -      |                 |           |
|                | ECD_1    | ECD_1    | ECD_1    | ECD_1    | 4.00 - |                 |           |
| CAL 1          | n.a.     | n.a.     | n.a.     | n.a.     | -      | /               |           |

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

|       | Rel. Std. Dev. | 0.298 % | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |        |       |           |     |           |
|-------|----------------|---------|---------------------------------------|--------|-------|-----------|-----|-----------|
|       | Average        | 3.055   |                                       |        |       |           |     |           |
| CAL 7 |                | 3.071   | 4.6837                                | 28.055 | 8.908 | 0.0       | 5.0 | 10.0 12.0 |
| CAL 6 |                | 3.061   | 2.4107                                | 15.024 | 4.585 | 0.00 - 2  |     |           |
| CAL 5 |                | 3.054   | 1.2190                                | 7.880  | 2.319 | 1 1 1 2 1 |     | mg/L      |
| CAL 4 |                | 3.051   | 0.5987                                | 3.998  | 1.139 |           | K   |           |
| CAL 3 |                | 3.047   | 0.2221                                | 1.478  | 0.422 | 2.00 -    |     |           |
| CAL 2 |                | 3.047   | 0.0274                                | 0.122  | 0.052 |           | 7   |           |

### Anion Summary Report

| No.<br>CHLORIDE   | Name<br>CHLORIDE | Time<br>min<br>CHLORIDE<br>ECD_1 | Area<br>µS*min<br>CHLORIDE<br>ECD_1 | Rel.Area<br>%<br>CHLORIDE<br>ECD_1 | Height<br>µS<br>CHLORIDE<br>ECD_1 | Rel.Height<br>%<br>CHLORIDE<br>ECD_1 | Amount<br>mg/L<br>CHLORIDE<br>ECD_1 |
|-------------------|------------------|----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| 1                 | BLANK            | 4.034                            | 0.0093                              | 33.63                              | 0.06                              | 40.78                                | 0.0542                              |
| 2                 | CAL 1            | 4.034                            | 0.0045                              | 20.78                              | 0.03                              | 27.12                                | 0.0395                              |
| 3                 | CAL 2            | 4.034                            | 0.0261                              | 16.86                              | 0.18                              | 21.48                                | 0.1057                              |
| 4                 | CAL 3            | 4.034                            | 0.2526                              | 15.79                              | 1.88                              | 19.38                                | 0.8019                              |
| 5 A <sup>64</sup> | CAL 4            | 4.034                            | 0.6935                              | 15.72                              | 5.14                              | 19.34                                | 2.1572                              |
| 6                 | CAL 5            | 4.034                            | 1.4164                              | 15.53                              | 10.40                             | 19.46                                | 4.3791                              |
| 7                 | CAL 6            | 4.031                            | 2.8556                              | 15.46                              | 20.83                             | 19.89                                | 8.8024                              |
| 8                 | CAL 7            | 4.034                            | 5.8397                              | 15.63                              | 41.81                             | 20.79                                | 17.9740                             |
|                   | Sum:             | 32.267                           | 11.098                              | 149.401                            | 80.317                            | 188.233                              | 34.314                              |
|                   | Average:         | 4.033                            | 1.387                               | 18.675                             | 10.040                            | 23.529                               | 4.289                               |
|                   | Rel.Std.Dev:     | 0.029 %                          | 147.768 %                           | 33.736 %                           | 146.452 %                         | 31.596 %                             | 146.886 %                           |
|                   |                  |                                  |                                     |                                    |                                   |                                      |                                     |

| No.<br>NITRATE | Name<br>NITRATE | Time<br>min<br>NITRATE<br>ECD_1 | Area<br>µS*min<br>NITRATE<br>ECD_1 | Rel.Area<br>%<br>NITRATE<br>ECD_1 | Height<br>µS<br>NITRATE<br>ECD_1 | Rel.Height<br>%<br>NITRATE<br>ECD_1 | Amount<br>mg/L<br>NITRATE<br>ECD_1 |
|----------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1              | BLANK SAME      | 7.014                           | 0.0120                             | 43.23                             | 0.06                             | 38.01                               | 0.0290                             |
| 2              | CAL 1           | 7.011                           | 0.0082                             | 37.58                             | 0.04                             | 30.91                               | 0.0244                             |
| 3              | CAL 2           | 7.011                           | 0.0265                             | 17.16                             | 0.13                             | 15.55                               | 0.0466                             |
| 4              | CAL 3           | 7.004                           | 0.2564                             | 16.03                             | 1.30                             | 13.38                               | 0.3249                             |
| 5              | CAL 4           | 6,994                           | 0.7128                             | 16.16                             | 3.56                             | 13.39                               | 0.8773                             |
| 6              | CAL 5           | 6.981                           | 1.4721                             | 16.14                             | 7.15                             | 13.39                               | 1.7963                             |
| 7              | CAL 6           | 6.957                           | 2.9835                             | 16.15                             | 13.91                            | 13.29                               | 3.6258                             |
| 8              | CAL 7           | 6.921                           | 6.0048                             | 16.07                             | 26.22                            | 13.04                               | 7.2829                             |
|                | Sum:            | 55.891                          | 11.476                             | 178.516                           | 52.363                           | 150.945                             | 14.007                             |
|                | Average:        | 6.986                           | 1.435                              | 22.314                            | 6.545                            | 18.868                              | 1.751                              |
|                | Rel.Std.Dev:    | 0.469 %                         | 147.259 %                          | 50.513 %                          | 141.917 %                        | 52.146 %                            | 146.040 %                          |

| No.<br>NITRITE | Name<br>NITRITE | Time<br>min<br>NITRITE<br>ECD_1 | Area<br>µS*min<br>NITRITE<br>ECD_1 | Rel.Area<br>%<br>NITRITE<br>ECD_1 | Height<br>µS<br>NITRITE<br>ECD_1 | Rel.Height<br>%<br>NITRITE<br>ECD_1 | Amount<br>mg/L<br>NITRITE<br>ECD_1 |
|----------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 101            | BLANK           | son.a.                          | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 2              | CAL 1           | ് <b>n.a</b> . ്?               | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 3              | CAL 2           | 4.674                           | 0.0221                             | 14.33                             | 0.11                             | 13.90                               | 0.0319                             |
| - 14 Jelei     | CAL 3           | 4.671                           | 0.2418                             | 15.12                             | 1.56                             | 16.09                               | 0.3479                             |
| 5              | CAL 4           | 4.671                           | 0.6591                             | 14.94                             | 4.20                             | 15.82                               | 0.9485                             |
| 6              | CAL 5           | 4.674                           | 1.3297                             | 14.58                             | 8.18                             | 15.32                               | 1.9136                             |
| 7              | CAL 6           | 4.677                           | 2.5727                             | 13.93                             | 15.13                            | 14.45                               | 3.7023                             |
| 8              | CAL 7           | 4.684                           | 4.8209                             | 12.90                             | 26.71                            | 13.28                               | 6.9377                             |
|                | Sum:            | 28.050                          | 9.646                              | 85.793                            | 55.897                           | 88.851                              | 13.882                             |
|                | Average:        | 4.675                           | 1.608                              | 14.299                            | 9.316                            | 14.809                              | 2.314                              |
|                | Rel.Std.Dev:    | 0.107 %                         | 113.378 %                          | 5.629 %                           | 108.245 %                        | 7.514 %                             | 113.378 %                          |

| No.       | Name      | Time<br>min        | Area<br>µS*min     | Rel.Area<br>%      | Height<br>µS       | Rel.Height<br>%    | Amount<br>mg/L     |
|-----------|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| PHOSPHATE | PHOSPHATE | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 |
| 1         | BLANK     | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               |
| 2         | CAL 1     | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               |

### Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

|   | Rel.Std.Dev: | #DIV/0! | #DIV/0!     | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0 |
|---|--------------|---------|-------------|---------|---------|---------|--------|
|   | Average:     | #DIV/0! | #DIV/0!     | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0 |
|   | Sum:         | 0.000   | 0.000       | 0.000   | 0.000   | 0.000   | 0.000  |
| 8 | CAL 7        | n.a.    | n.a.        | n.a.    | n.a.    | n.a.    | n.a.   |
| 7 | CAL 6        | n.a.    | n.a.        | n.a.    | n.a.    | n.a.    | n.a.   |
| 6 | CAL 5        | n.a.    | n.a.        | n.a.    | n.a.    | n.a.    | n.a.   |
| 5 | CAL 4        | n.a.    | n.a.        | n.a.    | n.a.    | n.a.    | n.a.   |
| 4 | CAL 3        | n.a.    | n.a.        | n.a.    | n.a.    | n.a.    | n.a.   |
| 3 | CAL 2        | n.a.    | <u>n.a.</u> | n.a.    | n.a.    | n.a.    | n.a.   |

| No.<br>BROMIDE | Name<br>BROMIDE | Time<br>min<br>BROMIDE<br>ECD_1 | Area<br>µS*min<br>BROMIDE<br>ECD_1 | Rel.Area<br>%<br>BROMIDE<br>ECD_1 | Height<br>µS<br>BROMIDE<br>ECD_1 | Rel.Height<br>%<br>BROMIDE<br>ECD_1 | Amount<br>mg/L<br>BROMIDE<br>ECD_1 |
|----------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1              | BLANK           | n.a. 👘                          | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 2              | CAL 1           | n.a.                            | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 3              | CAL 2           | 6.144                           | 0.0185                             | 11.99                             | 0.10                             | 11.67                               | 0.1298                             |
| 4              | CAL 3           | 6.137                           | 0.2220                             | 13.88                             | 1.26                             | 12.97                               | 1.7191                             |
| 5              | CAL 4           | 6.134                           | 0.6055                             | 13.72                             | 3.48                             | 13.09                               | 4.7398                             |
| 6              | CAL 5           | 6.127                           | 1.2577                             | 13.79                             | 7,10                             | 13.29                               | 9.6766                             |
| 7              | CAL 6           | 6.117                           | 2.5482                             | 13.80                             | 14.09                            | 13.46                               | 19.2109                            |
| 8              | CAL 7           | 6.097                           | 5.2194                             | 13.97                             | 27.70                            | 13.78                               | 37.7657                            |
| ·····          | Sum:            | 36.756                          | 9.871                              | 81.149                            | 53.730                           | 78.247                              | 73.242                             |
|                | Average:        | 6.126                           | 1.645                              | 13.525                            | 8.955                            | 13.041                              | 12.207                             |
|                | Rel.Std.Dev:    | 0.275 %                         | 120.014 %                          | 5.597 %                           | 117.024 %                        | 5.609 %                             | 117.024 %                          |

| No.<br>SULFATE | Name<br>SULFATE | Time<br>min<br>SULFATE<br>ECD_1 | Area<br>µS*min<br>SULFATE<br>ECD_1 | Rel.Area<br>%<br>SULFATE<br>ECD_1 | Height<br>µS<br>SULFATE<br>ECD_1 | Rel.Height<br>%<br>SULFATE<br>ECD_1 | Amount<br>mg/L<br>SULFATE<br>ECD_1 |
|----------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1              | BLANK           | 5.454                           | 0.0064                             | 23.14                             | 0.03                             | 21.21                               | 0.0265                             |
| 2              | CAL 1           | 5.454                           | 0.0090                             | 41.65                             | 0.05                             | 41.97                               | 0.0374                             |
| 3              | CAL 2           | 5.454                           | 0.0339                             | 21.96                             | 0.18                             | 22.48                               | 0.1405                             |
| 4              | CAL 3           | 5.451                           | 0.3766                             | 23.55                             | 2.17                             | 22.26                               | 1.5586                             |
| 5              | CAL 4           | 5.447                           | 1.0175                             | 23.06                             | 5.85                             | 22.05                               | 4.2114                             |
| 6              | CAL 5           | 5.441                           | 2.0721                             | 22.72                             | 11.74                            | 21.97                               | 8.5760                             |
| 7              | CAL 6           | 5.431                           | 4.1763                             | 22.61                             | 23.32                            | 22.27                               | 17.2851                            |
| 8              | CAL 7           | 5.411                           | 8.6085                             | 23.04                             | 45.58                            | 22.66                               | 35.6294                            |
|                | Sum:            | 43.541                          | 16.300                             | 201.724                           | 88.926                           | 196.883                             | 67.465                             |
|                | Average:        | 5.443                           | 2.038                              | 25.216                            | 11.116                           | 24.610                              | 8.433                              |
|                | Rel.Std.Dev:    | 0.281 %                         | 148.176 %                          | 26.393 %                          | 144.660 %                        | 28.557 %                            | 148.176 %                          |
| erser et       |                 |                                 | gan - takg                         |                                   |                                  |                                     |                                    |

| No.<br>FLUORIDE    | Name<br>FLUORIDE | Time<br>min<br>FLUORIDE<br>ECD_1 | Area<br>µS*min<br>FLUORIDE<br>ECD_1 | Rel.Area<br>%<br>FLUORIDE<br>ECD_1 | Height<br>µS<br>FLUORIDE<br>ECD_1 | Rel.Height<br>%<br>FLUORIDE<br>ECD_1 | Amount<br>mg/L<br>FLUORIDE<br>ECD_1 |
|--------------------|------------------|----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| 194 <b>4</b> - 194 | BLANK            | n.a.                             | n.a.                                | n.a.                               | n.a.                              | n.a.                                 | n.a.                                |
| 2 2 2 2 2 2        | CAL 1            | n.a.                             | n.a.                                | n.a.                               | n.a <i>.</i>                      | n.a.                                 | n.a.                                |
| 3                  | CAL 2            | 3.047                            | 0.0274                              | 17.71                              | 0.12                              | 14.92                                | 0.0521                              |
| 4 14               | CAL 3            | 3.047                            | 0.2221                              | 13.89                              | 1.48                              | 15.19                                | 0.4224                              |
| 5                  | CAL 4            | 3.051                            | 0.5987                              | 13.57                              | 4.00                              | 15.05                                | 1.1388                              |
| 6                  | CAL 5            | 3.054                            | 1.2190                              | 13.36                              | 7.88                              | 14.75                                | 2.3186                              |
|                    | CAL 6            | 3.061                            | 2.4107                              | 13.05                              | 15.02                             | 14.35                                | 4.5853                              |
| 8                  | CAL 7            | 3.071                            | 4.6837                              | 12.54                              | 28.06                             | 13.95                                | 8.9084                              |
|                    | Sum:             | 18.330                           | 9.162                               | 84.119                             | 56.557                            | 88.215                               | 17.426                              |
|                    | Average:         | 3.055                            | 1.527                               | 14.020                             | 9.426                             | 14.702                               | 2.904                               |
|                    | Rel.Std.Dev:     | 0.298 %                          | 115.879 %                           | 13.301 %                           | 112.271 %                         | 3.199 %                              | 115.879 %                           |

Chromeleon (c) Dionex 1996-2009 Version 7.1.0.898 WET CHEMISTRY BATCH REPORT Aug 27 2021, 09:34 am Batch: WG304837 Run ID 1: R575332 Run ID 2: R575337

Parameter: Nitrate As N

Date Analyzed: 19-AUG-21

Analyst Initials: SS

Prep Chemist: N/A

Prep Method: N/A

Prep Date: N/A

| Sample S                                                                     | Samp Type Method | Method                                                                                                          | Initial Amt.                                                                                               | Initial Amt. Final Amt. | Rpt. DF | Result   | Rpt Result  | TS (%) | ЪQL  | MDL   | Adj PQL | RPD | U                               |
|------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------|---------|----------|-------------|--------|------|-------|---------|-----|---------------------------------|
|                                                                              | SAMP             | EPA 353.2                                                                                                       | 5.000mL                                                                                                    | 5.0000mL                | ú       | 0044 1-7 |             | NA     | . 05 | 0,076 | 0.25    |     | 8 6 8 6 8 7 1 1 3 3 8 6 8 6 8 6 |
| S05463-2 S.                                                                  | AMP              | EPA 353.2                                                                                                       | 5.0000mL                                                                                                   | 5.0000mL                | ri.     | 0491     | U0.050 mg/L | NA     | .05  | 0.015 | 0.050   |     |                                 |
| WG304837*1 MBLANK                                                            | BLANK            | EPA 353.2                                                                                                       | 5.0000mL                                                                                                   | 5.0000mL                | r4      | 0        | U0.025 mg/L | NA     | .05  | 0.015 | 0.050   |     |                                 |
| WG304837-2 LCS                                                               | CS               | EPA 353.2                                                                                                       | 5.0000mL                                                                                                   | 5,0000mL                | гł      | 947      | 0.95 mg/L   | NA     | .05  | 0.015 | 0.050   |     | 95                              |
| WG304837-3 MS                                                                | ស                | EPA 353.2                                                                                                       | 5.0000mL                                                                                                   | 5.0000mL                | -1      | 187      | 0.19 mg/L   | NA     | .05  | 0.015 | 0.050   |     | 37                              |
| WG304837-4 MSD                                                               | SD               | EPA 353.2                                                                                                       | 5.0000mL                                                                                                   | 5.0000mL                | г       | .169     | 0.17 mg/L   | NA     | .05  | 0.015 | 0.050   | 10  | 34                              |
| Comments:                                                                    |                  |                                                                                                                 |                                                                                                            |                         |         |          |             |        |      |       |         |     |                                 |
| SO5463-1<br>SO5463-2<br>WG304837-1<br>WG304837-2<br>WG304837-2<br>WG304837-3 |                  | Anions report Cl & SO4.<br>MS/MSD, Anions report Cl<br>SO5463-2<br>SO5463-2<br>SO5463-2<br>SO5463-2<br>SO5463-2 | Anions report Cl & S04.<br>MS/MSD, Anions report Cl & S04.<br>S05463-2<br>S05463-2<br>S05463-2<br>S05463-2 | <b>7</b> 4 .            |         |          |             |        |      |       |         |     |                                 |

1

死 Date: S/17/11 Accepted by:\_\_\_\_\_

WET CHEMISTRY BATCH REPORT Aug 27 2021, 09:36 am Batch: WG304838 Run ID 1: R575333 Run ID 2: R575340

%Rec ы С RPD Adj PQL 0.050 0.050 0.050 0.015 0.015 0.015 MDL PQL .05 .05 TS (%) an an Prep Chemist: N/A U0.050 mg/L U0.025 mg/L 0.95 mg/L Prep Method: N/A Rpt Result Prep Date: N/A .0454 .-.0167 ..947 Rpt. DF Result Initial Amt. Final Amt. 5.0000mL 5.0000mL 5.0000mL 5.0000mL 5.0000mL 5.0000mL EPA 353.2 EPA 353.2 EPA 353.2 Parameter: Nitrate+Nitrite As N SO5456-1 SO5456-1 Samp Type Method Date Analyzed: 19-AUG-21 Analyst Initials: SS SO5456-1 SAMP WG304838-1 MBLANK WG304838-2 LCS WG304838-1 WG304838-2 Comments: Sample

K Date: S/17/Ld Accepted by:\_\_\_\_

Entered by: SS

Date: 8/27/24

Run ID 2: R575342 WET CHEMISTRY BATCH REPORT Aug 27 2021, 09:37 am Run ID 1: R575334 Batch: WG304839

RPD Adj PQL 9.5 0.050 0.050 0.76 0.0040 0.0040 MDL PQL ហំហំហ TS (%) 27. NA NA Frep Method: EPA 353.2 Prep Date: 18-AUG-21 U9.5 mg/Kg U0.050 mg/L 0.97 mg/L Prep Chemist: SS Rpt Result -1.6728 **T. 7** .0058 .9676 Rpt. DF Result ი ო ო ო Initial Amt. Final Amt. 100.00mL 100.00mL 100.00mL 10.0479 10.0009 10.0009 EPA 353.2 EPA 353.2 EPA 353.2 Samp Type Method Date Analyzed: 19-AUG-21 Parameter: Nitrate As N Analyst Initials: SS WG304839-1 MBLANK WG304839-2 LCS S05452-1 SAMP Comments: Sample

5

%Rec

WG304839-1 WG304839-2 WG304839-3

SO5452-1 SO5452-1 SO5452-1

Katahdin Analytical Services 5000215

Date: Z/27/12 Accepted by:\_\_

Entered by: SS

Date: 8 127/4

LL.

WET CHEMISTRY BATCH REPORT Aug 27 2021, 09:37 am Batch: WG304839 Run ID 1: R575334 Run ID 2: R575342

%Rec 00 T RPD Adj PQL 1.8 0.050 0.050 0.11 0.0030 0.0030 MDL PQL ທີ່ ທີ່ ທີ່ TS (\$) 27. NA Prep Method: EPA 353.2 2.0 mg/Kgdrywt U0.050 mg/L 1.0 mg/L Prep Date: 18-AUG-21 Prep Chemist: SS Rpt Result -.0225 1 Rpt. DF Result . .0538 <u>к.</u>ч Initial Amt. Final Amt. 100.00mL 100.00mL 100.00mL ° 10.0479 10.0009 10.0009 EPA 353.2 EPA 353.2 EPA 353.2 S05452-1 S05452-1 S05452-1 Samp Type Method Date Analyzed: 19-AUG-21 Parameter: Nitrite As N Analyst Initials: SS SO5452-1 SAMP WG304839-1 MBLANK WG304839-3 LCS WG304839~1 WG304839-2 WG304839-3 Comments: Sample

Date: 8/27/M Accepted by: ZF

Entered by: SS

Date: \$ 123/21.

## KATAHDIN ANALYTICAL SERVICES, LLC. Wet Chemistry Analysis Run Information Sheet

|                                                           |                                 | Anal             |                 |                 |  |  |  |  |  |  |  |
|-----------------------------------------------------------|---------------------------------|------------------|-----------------|-----------------|--|--|--|--|--|--|--|
| Analyte: NO3, NO2, and NO3+NO                             | JZ                              |                  | /st: <u>⊆</u> ∫ | ~ 1101          |  |  |  |  |  |  |  |
| Instrument: LACHAT                                        |                                 |                  |                 | 8/19/21         |  |  |  |  |  |  |  |
| Were pHs of all samples adjuste<br>Circle one: Yes        | No pHP                          | analys<br>anor l | is?<br>         | 5303 6102002    |  |  |  |  |  |  |  |
| Vere all samples checked for th                           | no prir                         | aper i<br>Iorine | prior to a      | 03003 610007    |  |  |  |  |  |  |  |
| Circle one: Yes                                           | -                               |                  |                 | -               |  |  |  |  |  |  |  |
| Analytical Method (Check all tha                          | $\mathcal{S}_{\mathcal{L}_{i}}$ | W63              | 04851           | -7R575334       |  |  |  |  |  |  |  |
|                                                           |                                 |                  |                 |                 |  |  |  |  |  |  |  |
| <b>V</b> EPA 353.2                                        | SM 4500 F                       |                  |                 | Other           |  |  |  |  |  |  |  |
| wG304837 → RS7533:<br>Reagent Information:                | 2 Noxin                         | 1630             | 4838-           | FRS75333        |  |  |  |  |  |  |  |
| Reagent Name                                              | Reagent ID                      | )                |                 | biration Date   |  |  |  |  |  |  |  |
| Ammonium Chloride Buffer                                  | W20296                          |                  |                 | 9/13/2021       |  |  |  |  |  |  |  |
| Sulfanilamide Color ReagentW202889/11/2021CarrierDI Water |                                 |                  |                 |                 |  |  |  |  |  |  |  |
| Carrier                                                   |                                 | D                | I Water         |                 |  |  |  |  |  |  |  |
| Cadmium Reduction Column                                  | S/N: SWL4699                    |                  |                 |                 |  |  |  |  |  |  |  |
| Standards Information:                                    |                                 |                  |                 |                 |  |  |  |  |  |  |  |
| Standard Name                                             | Concentration<br>(mg/L)         |                  | ID              | Expiration Date |  |  |  |  |  |  |  |
| Nitrate CCV                                               | 0.5                             | V                | V20300          | 9/17/21         |  |  |  |  |  |  |  |
| Nitrite CCV                                               | 0.5                             | V                | V20252          | 9/5/21          |  |  |  |  |  |  |  |
| Nitrate ICV/LCS                                           | 1.0                             | V                | V20203          | 8/20/21         |  |  |  |  |  |  |  |
| Nitrite ICV/LCS                                           | 1.0                             | V                | V20241          | 8/30/21         |  |  |  |  |  |  |  |
| Standard #1                                               | 2.0                             | V                | V20264          | 9/6/21          |  |  |  |  |  |  |  |
| Standard #2                                               | 1.0                             | V                | V20265          | 9/6/21          |  |  |  |  |  |  |  |
| Standard #3                                               | 0.5                             | V                | V20252          | 9/5/21          |  |  |  |  |  |  |  |
| Standard #4                                               | 0.25                            | V                | V20266          | 9/6/21          |  |  |  |  |  |  |  |
| Standard# 5                                               | 0.05                            | v                | V20267          | 9/6/21          |  |  |  |  |  |  |  |
| Otanuaru# J                                               |                                 | l r              | l water         | N/A             |  |  |  |  |  |  |  |
| Standard #6                                               | 0.0                             | L                |                 |                 |  |  |  |  |  |  |  |
|                                                           | 0.0<br>100.0                    | · ····           | V20037          | 5/27/2022       |  |  |  |  |  |  |  |

Notes:

1. Matrix Spiking: To 5mL Sample Alliquot add 0.025 mL of Nitrate Standard and 0.025mL Nitrite Standard

 P Sample Jabers were verified. SS 8/19/11

 Comments: Pipettes: W5, W3, W9, W8

 MS: 200uL, 5mL
 5x, 10x, & 20x Dilutions: 1mL, 5mL

 2x, 4x Dilutions: 5mL
 25x, 50x, 100x, 200x Dilutions: 200uL, 5mL

 250x, 500x, 1000x, 2000x, 2500x Dilutions: 200uL, 1ml, 5mL

 WL-062 - Revision 2 - 11/11/2015

### Author: wetchem

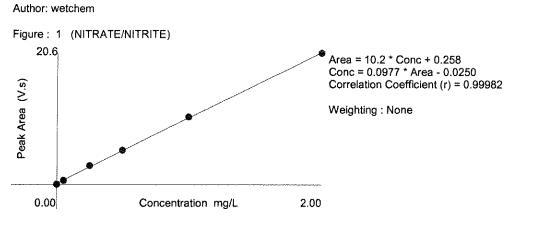
Original Run Filename: OM\_8-19-2021\_01-46-04PM.OMN Created: 8/19/2021 1:46:04 PM Original Run Author's Signature: [wetchem] Current Run Filename: OM\_8-19-2021\_01-46-04PM.OMN Last Modified: 8/19/2021 2:27:14 PM Current Run Author's Signature: [wetchem] Description: Default New Run

|             |              | Channel 1      |         |          | Channel 2      |         |         |                      |      |
|-------------|--------------|----------------|---------|----------|----------------|---------|---------|----------------------|------|
|             | Sample       | NITRATE/NIT    |         |          | NITRITE        |         |         | Detection Time       | MDF  |
|             | oumpio       | Conc. (mg/L)   |         | Height   | Conc. (mg/L)   | Area    | Height  | Detection Time       | NUF  |
|             |              |                | (V.s)   | (V)      |                | (V.s)   | (V)     |                      |      |
|             | STD 2.0      | 2.00           | 20.6    | 1.75     | 2.00           | 23.8    | 2.18    |                      |      |
|             | STD 1.0      | 1.00           | 10.6    | 0.919    | 1.00           | 12.4    |         | 8/19/2021@1:48:16 PM |      |
|             | STD .5       | 0.500          | 5.42    | 0.470    | 0.500          | 6.39    | 0.601   |                      |      |
|             | STD .25      | 0.250          | 3.01    | 0.262    | 0.250          | 3.47    | 0.327   |                      |      |
|             | STD.05       | 0.0500         | 0.676   | 0.0588   | 0.0500         | 0.702   | 0.0650  | 8/19/2021@1:51:47 PM |      |
| 1           | STD 0.0      | 0.00           | 0.0749  | 6.27e-3  | 0.00           | 0.0229  |         | 8/19/2021@1:52:59 PM |      |
| op.sil.     | CCV NO3      | 0.499          | 5.36    | 0.466    | -0.0239        | 1.63e-3 | 1.88e-3 | 8/19/2021@1:56:04 PM |      |
| 6 -         |              | 0.500          |         |          | 0.500          |         |         |                      |      |
| -1          | Calibration: | Table/Fig. : 1 |         |          | Table/Fig. : 2 |         |         |                      |      |
| 102.57.     | CCV NO2      | 0.505          | 5.42    | 0.474    | 0.514          | 6.39    | 0.601   | 8/19/2021@1:57:14 PM |      |
| 11.0        | Known Conc:  | 0.500          |         |          | 0.500          |         |         |                      |      |
|             | CCB          | -0.0179        | 0.0728  | 5.62e-3  | -0.0225        | 0.0189  | 3.00e-3 | 8/19/2021@1:58:26 PM |      |
|             | Known Conc:  | 0.00           |         |          | 0.00           |         |         |                      |      |
|             | BLANK        | -0.0167        | 0.0846  | 6.87e-3  | -0.0225        | 0.0190  | 2.45e-3 | 8/19/2021@1:59:36 PM |      |
|             | Known Conc:  | 0.00           |         |          | 0.00           |         |         |                      |      |
|             | NO3 LCS      | 0.947          | 9.95    | 0.860    | -0.0206        | 0.0412  | 3.96e-3 | 8/19/2021@2:00:45 PM |      |
|             | Known Conc:  | 1.00           |         |          | 1.00           |         |         |                      |      |
|             | NO2 LCS      | 1.01           | 10.6    | 0.920    | 1.00           | 12.1    | 1.13    | 8/19/2021@2:01:55 PM |      |
|             | Known Conc:  | 1.00           |         |          | 1.00           |         |         |                      |      |
|             | SO5452-1     | 0.0160         | 0.420   | 0.0332   | 0.0538         | 0.923   | 0.0823  | 8/19/2021@2:03:05 PM |      |
|             | SO5456-1     | 0.0454         | 0.720   | 0.0551   | 0.0434         | 0.800   | 0.0678  | 8/19/2021@2:04:16 PM |      |
|             | SO5463-1     | 5.02e-3        | 0.307   | 0.0167   | 0.0554         | 0.942   | 0.0790  | 8/19/2021@2:05:27 PM |      |
|             | SO5463-2     | -4.45e-3       | 0.210   | 0.0102   | 0.0491         | 0.867   | 0.0675  | 8/19/2021@2:06:37 PM |      |
|             | SO5463-2 MS  | 0.512          | 5.49    | 0.414    | 0.325          | 4.14    | 0.340   | 8/19/2021@2:07:48 PM |      |
| r.,         | SO5463-2 MSD | 0.529          | 5.67    | 0.430    | 0.360          | 4.56    | 0.376   |                      |      |
| c Cl.       | SOIL BLANK   | -0.0270        | -0.0203 | -8.18e-4 | -0.0224        |         | 1.99e-3 | 8/19/2021@2:10:08 PM |      |
| 98.61.      | CCV NO3      | 0.493          | 5.31    | 0.469    | -0.0221        | 0.0234  | 2.39e-3 | 8/19/2021@2:11:21 PM |      |
|             | Known Conc:  | 0.500          |         |          | 0.500          |         |         |                      |      |
| 101.27      | CCV NO2      | 0.500          | 5.38    | 0.479    | 0.506          | 6.29    | 0.582   | 8/19/2021@2:12:32 PM |      |
| 1v.         | Known Conc:  | 0.500          |         |          | 0.500          |         |         |                      |      |
|             | CCB          | -0.0177        | 0.0740  | 5.74e-3  | -0.0212        | 0.0339  | 3.14e-3 | 8/19/2021@2:13:46 PM |      |
|             | Known Conc:  | 0.00           |         |          | 0.00           |         |         | -                    |      |
|             | SO5463-2 MS  | 0.415          | 4.51    | 0.332    | 0.248          | 3.23    | 0.263   | 8/19/2021@2:14:56 PM | i    |
|             | SO5463-2 MSD | 0.415          | 4.50    | 0.332    | 0.256          | 3.33    | 0.270   | 8/19/2021@2:16:09 PM |      |
|             | SOIL LCS     | 1.59           | 16.5    | 1.45     | 1.41           | 17.0    | 1.58    | 8/19/2021@2:17:18 PM |      |
|             | SO5452-1     | -0.0685        | 0.115   | 9.05e-3  | -0.0235        | 0.229   | 0.0188  | 8/19/2021@2:18:28 PM | 5.00 |
| .1          | SO5463-1     | 4.43e-3        | 0.265   | 0.0205   | -0.0265        | 0.222   | 0.0189  | 8/19/2021@2:19:39 PM | 5.00 |
| 66 HI       | CCV NO3      | 0.492          | 5.29    | 0.473    | -0.0223        | 0.0211  |         | 8/19/2021@2:22:44 PM |      |
| ~~~ · · · · | Known Conc:  | 0.500          |         |          | 0.500          |         |         |                      |      |
| 161         | CCV NO2      | 0.499          | 5.36    | 0.482    | 0.507          | 6.30    | 0.584   | 8/19/2021@2:23:57 PM |      |
| 10. 11.     | Known Conc:  | 0.500          |         |          | 0.500          |         |         |                      |      |
| I           | CCB          | -0.0182        | 0.0696  | 5.75e-3  | -0.0208        | 0.0389  | 2.44e-3 | 8/19/2021@2:25:09 PM |      |
|             | Known Conc:  | 0.00           |         |          | 0.00           |         |         |                      |      |

### Table : 1 (NITRATE/NITRITE)

|   | Known Conc.<br>(mg/L) | Rep. | Peak Area<br>(V.s) | Peak Height<br>(V) | % RSD | % Residual | Det. Conc<br>(mg/L) | Detection Date | Detection Time |
|---|-----------------------|------|--------------------|--------------------|-------|------------|---------------------|----------------|----------------|
| 1 | 2.00                  | 1    | 20.6               | 1.75               | 0.0   | 0.5        | 1.99                | 8/19/2021      | 1:47:07 PM     |
| 2 | 1.00                  | 1    | 10.6               | 0.919              | 0.0   | -1.3       | 1.01                | 8/19/2021      | 1:48:16 PM     |
| 3 | 0.500                 | 1    | 5.42               | 0.470              | 0.0   | -0.9       | 0.505               | 8/19/2021      | 1:49:25 PM     |
| 4 | 0.250                 | 1    | 3.01               | 0.262              | 0.0   | -6.9       | 0.269               | 8/19/2021      | 1:50:36 PM     |
| 5 | 0.0500                | 1    | 0.676              | 0.0588             | 0.0   | 12.2       | 0.0411              | 8/19/2021      | 1:51:47 PM     |
| 6 | 0.00                  | 1    | 0.0749             | 6.27e-3            |       |            | -0.0177             | 8/19/2021      | 1:52:59 PM     |

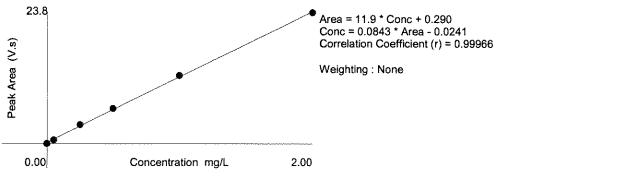




### Table: 2 (NITRITE)

|   | Known Conc.<br>(mg/L) | Rep. | Peak Area<br>(V.s) | Peak Height<br>(V) | % RSD | % Residual | Det. Conc<br>(mg/L) | Detection Date | Detection Time |
|---|-----------------------|------|--------------------|--------------------|-------|------------|---------------------|----------------|----------------|
| 1 | 2.00                  | 1    | 23.8               | 2.18               | 0.0   | 0.8        | 1.98                | 8/19/2021      | 1:47:08 PM     |
| 2 | 1.00                  | 1    | 12.4               | 1.16               | 0.0   | -2.1       | 1.02                | 8/19/2021      | 1:48:17 PM     |
| 3 | 0.500                 | 1    | 6.39               | 0.601              | 0.0   | -2.8       | 0.515               | 8/19/2021      | 1:49:27 PM     |
| 4 | 0.250                 | 1    | 3.47               | 0.327              | 0.0   | -6.6       | 0.268               | 8/19/2021      | 1:50:37 PM     |
| 5 | 0.0500                | 1    | 0.702              | 0.0650             | 0.0   | 20.5       | 0.0351              | 8/19/2021      | 1:51:49 PM     |
| 6 | 0.00                  | 1    | 0.0229             | 2.60e-3            |       |            | -0.0221             | 8/19/2021      | 1:53:00 PM     |

Figure : 2 (NITRITE)



# KATAHDIN ANALYTICAL SERVICES

# SOIL PREPARATION BY METHOD E300

Balance ID: 01

÷

Pipette ID(s) Auto

| PREP            | SAMPLE | WEIGHT            | TOTAL H20                       | ANALYSIS                               | SPIKE                                 |
|-----------------|--------|-------------------|---------------------------------|----------------------------------------|---------------------------------------|
| TIME            | D      | (g)               | ADDED(ml)                       | REQUESTED                              | ADDED                                 |
| 15:07           | BLANK  |                   | 100                             | NO2/3                                  |                                       |
|                 | LCS    | ••••••            |                                 | l                                      | Spiked 10046 Element A                |
|                 | SA52-1 | 10.047            |                                 |                                        |                                       |
|                 | L      | 10.047<br>20.3041 | 60                              | PH                                     |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 | · · · · · · · · · · · · · · · · · · ·  |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        | · · · · · · · · · · · · · · · · · · · |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   | 21                              |                                        |                                       |
|                 |        |                   | - <u>21</u><br>- <u>8/24</u> 21 |                                        |                                       |
|                 |        | /                 | acrei                           |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
| *               |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
| $ \rightarrow $ |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
| NOTES:          |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 |                                        |                                       |
|                 |        |                   |                                 | •                                      | •                                     |
|                 |        |                   |                                 |                                        |                                       |
| ANALYST:        | L D    | ATE: 81.8/2       |                                 | ······································ |                                       |
| CHECKED BY      |        | ATE: 8/23/2       |                                 |                                        |                                       |

Run ID 2: NONE WET CHEMISTRY BATCH REPORT Aug 23 2021, 10:35 am 2 Run ID 1: R574929 Batch: WG304712

Prep Date: 20-AUG-21 25 2 124 14

Parameter: Solids-Filterable Residue

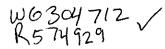
Date Analyzed: 20-AUG-21

Analyst Initials: JJ

Prep Chemist: JJ

Prep Method: SM 2540C

| 66<br>%                 | 76<br>76                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RPD                     | 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Adj PQL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ব                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| TOM                     | , , , , , , , , , , , , , , , , , , ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Date: 8/23/41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| PQL                     | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Bat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| TS (%)                  | AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>AN<br>A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Rpt Result              | 460 mg/L<br>690 mg/L<br>63. mg/L<br>63. mg/L<br>75. mg/L<br>86. mg/L<br>63. mg/L<br>63. mg/L<br>76. mg/L<br>1700 mg/L<br>3700 mg/L<br>730 mg/L<br>730 mg/L<br>730 mg/L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| DF Result               | 456<br>90<br>63<br>63<br>75<br>86<br>63<br>3295<br>33295<br>33295<br>33295<br>33295<br>33295<br>33295<br>33295<br>33295                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Accepted by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Rpt. DF                 | манааааааааааааааа                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 13/21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Initial Amt. Final Amt. | 75.211909<br>80.1156409<br>73.565709<br>73.756809<br>91.361809<br>91.361809<br>91.361809<br>91.361809<br>91.361809<br>91.361809<br>91.361809<br>92.0638009<br>94.448509<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.139109<br>94.1391009<br>94.1391009 | 04.<br>Date: <u>&amp; 73/2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Initial Amt             | 100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL<br>100.00mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | report Cl & SO4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Method                  | STDM 2540C<br>STDM 2540C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Anions report Cl & SO4.<br>MS/MSD, Anions report Cl<br>S05463-2<br>S05463-2<br>S05463-2<br>S05463-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Samp Type               | SAMP<br>SAMP<br>SAMP<br>SAMP<br>SAMP<br>SAMP<br>SAMP<br>SAMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sample                  | S05397-1<br>S05433-2<br>S05433-2<br>S05433-2<br>S05433-4<br>S05434-3<br>S05434-3<br>S05434-3<br>S05434-3<br>S05434-3<br>S05434-3<br>S05434-3<br>S05434-4<br>S05434-1<br>S05434-1<br>S05434-1<br>S05434-1<br>S05434-1<br>S05434-1<br>S05434-1<br>S05434-1<br>S05431-1<br>WG3047112-1<br>WG3047112-2<br>WG3047112-2<br>WG3047112-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Comments:<br>\$65463-1<br>\$05463-1<br>\$05463-2<br>WG304712-2<br>WG304712-2<br>WG304712-2<br>WG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG304712-4<br>MG30777777777777777777777777777777777777 |



# KATAHDIN ÁNALYTICAL SERVICES, LLC TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

| - 11 | Total Disolved Soli |             | *****         |                                                                                                                |            | olved Solids: SI |                               |                                | PQL: 10m     |
|------|---------------------|-------------|---------------|----------------------------------------------------------------------------------------------------------------|------------|------------------|-------------------------------|--------------------------------|--------------|
|      | Total Suspended S   | Solids: EP/ | <u>\ 160.</u> | 2                                                                                                              | Total Susp | ended Solids:    | SM 2540D                      |                                | PQL: 4mg     |
|      | Aqueous Solids LC   | S Sand ID   | )/Lot#        | WZC                                                                                                            | 237 + 81   | 4                | Filter Lot # S                | WL4792                         |              |
|      |                     | AS          | TM Cla        | ass Weigh                                                                                                      | ts         |                  | Oven Temperatu                | ires (C)                       |              |
|      | Balance ID: 0)      | 1           |               |                                                                                                                |            |                  |                               | 0 +/- 2°C, TSS:                | 103 - 105 °C |
|      | True WT (g)         |             | al WT (       | and a second |            | nal WT (g)       | Oven ID: 0                    |                                |              |
| h    | 0.1000              |             |               | 0.1002                                                                                                         | 0.1        |                  | In Temp. (80                  |                                | Time: 13:4   |
| l h  | 1.0000              |             |               | - D.99998                                                                                                      |            | 998              | Out Temp. (80                 | Date: 8/20/21                  |              |
|      | 100.0000            | 3/19-9      |               | 100.0002                                                                                                       |            | 999              | In Temp. 180<br>Out Temp. 180 | Date: 8/20/21<br>Date: 8/20/21 | Time: 8:5    |
| 指数   | Notes:              |             |               |                                                                                                                |            |                  | In Temp.                      | Date: Date:                    |              |
|      | Samples             | , 50541     | 03-1          | 1 - 2 va                                                                                                       | ere cance  | elled            | Out Temp.                     | Date:                          | Time: 44 55  |
|      | •                   |             |               |                                                                                                                |            |                  |                               |                                | Traite:      |
| Γ    | KAS                 | Sample      | Т             | ime of                                                                                                         | Filter or  | Filter or        | Dry 1                         | Dry 2                          | Time of      |
|      | Sample              | Volume      |               | nitial                                                                                                         | Dish       | Dish Wt.         | Dish/Filter                   | Dish/Filter                    | Final        |
|      | ID                  | (ml)        | A             | liquot                                                                                                         | ID         | (g)              | + Sample<br>Residue Wt.       | + Sample<br>Residue Wt.        | Weighin      |
| L    |                     |             |               |                                                                                                                |            |                  | 87.34004                      | (g)                            | (Analysis    |
| E    | Blank               | 100         | 7             | 1:45                                                                                                           | 10         | 87.3402          | 87-33954                      | 087.34055                      | 14:00        |
| L    | .CS                 | 1           |               | 1                                                                                                              | 206        | 94.0665          |                               | 94.1391                        | BIZO         |
| ſ    | LCSD                |             |               |                                                                                                                | 213        | 91.7694          | 91.8424                       | 91.8424                        |              |
| *    | 505397-1            |             |               |                                                                                                                | 406        | 75.1663          | 75.2113                       | 75.2119                        |              |
| _    | 505433-1            |             | 1             |                                                                                                                | 00046      | 80.1074          | 80.1168                       | 80.1164                        |              |
| -    | -2                  |             | 1             |                                                                                                                | 404        | 73.5588          | 73.5659                       | 1                              |              |
| ┢    | -3                  |             | 1             | +                                                                                                              | I          |                  | I                             | 73.5657                        |              |
| ┢    | -4                  |             |               | <del>  </del>                                                                                                  | 77         | 78.4006          | 78.4067                       | 78.4069                        |              |
| ╟    |                     |             |               |                                                                                                                | 413        | 73.7493          | 73.7566                       | 73.7568                        |              |
|      | 505434-1            |             | <b>_</b>      |                                                                                                                | 219        | 90.3029          | 90.3107                       | 90.3115                        |              |
|      | -2                  |             | <u> </u>      |                                                                                                                | 217        | 91.3555          | 91.3612                       | 91.3618                        |              |
|      | -3                  |             |               |                                                                                                                | ARK        | 93.0363          | 93.0421                       | 93.0425                        |              |
|      | 4                   |             |               |                                                                                                                | 58         | 71.5335          | 77.5414                       | 77.5411                        |              |
| 15   | S05463-1-00P        | <u>v</u>    |               |                                                                                                                | AL12       | 82.5931          | 82.6316                       | 82.6326                        | 1            |
|      | -2                  | 1           |               | $\mathbf{v}$                                                                                                   | W35        | 89.9766          | 90,0084                       | 90.0089                        |              |
| 9    | 305463-2DUP         | V           | 8:            | 15                                                                                                             | AL6        | 80.8879          |                               | 80.9192                        |              |
|      | 505478-1            | 100         | 9:9           |                                                                                                                | BP4        | 89.3853          | 89.5575                       |                                |              |
|      | 505481-1            | 100         | <u> </u>      | 05                                                                                                             | 5745       | 94.0813          |                               | <u>94. 4485</u>                | 14:08        |
| F    |                     |             |               |                                                                                                                |            |                  | <u>, 11, 17, 12</u>           |                                | 17.08        |
| ┢    |                     |             | <u> </u>      |                                                                                                                |            |                  |                               |                                |              |
| ┢    |                     |             |               |                                                                                                                |            |                  |                               |                                | <u></u>      |
| ⊩    |                     |             |               |                                                                                                                |            |                  |                               |                                |              |
|      |                     |             |               |                                                                                                                |            |                  |                               |                                |              |
|      |                     |             |               |                                                                                                                |            |                  |                               |                                |              |
|      |                     |             |               |                                                                                                                |            |                  |                               |                                |              |
|      |                     |             |               |                                                                                                                |            |                  |                               |                                |              |
| Ar   | nalyst: <u>}</u>    |             |               |                                                                                                                |            |                  | Date: 8/19/2                  | · 1                            |              |
|      |                     | ZF          |               |                                                                                                                |            |                  | Date: 8/23/2                  |                                |              |

QAWL1030 - 000309

Katahdin Analytical Servic (1990)





# Wet Chemistry Batch Report

WG305663

Batch:

Prep Method: N/A

Analyst Initials: SS/ZF Date Analyzed: 06-SEP-21 07-SEP-21

|              | 07-SEP-21 | 21                    |           | Prep Cl  | Prep Chemist: SS/ZF | F           |       |            |      |       |       |     |      |
|--------------|-----------|-----------------------|-----------|----------|---------------------|-------------|-------|------------|------|-------|-------|-----|------|
|              |           |                       |           |          |                     |             |       |            | Adj. |       | Adj.  |     |      |
| Sample       | Samp Type | Method                | Parameter | DF       | Result              | Rpt. Result | Units | PQL        | PQL  | MDL   | MDL   | RPD | Rec. |
| SO5313-1DLB  |           | SW846 9056A           | Sulfate   | -        | -25.4846            | 25          | mg/L  |            | 1.0  | .25   | 0.25  |     |      |
| SO5313-7DLB  |           | SW846 9056A           | Sulfate   |          | 1.2516              | 1.2         | me/L  |            | 1.0  | 25    | 0.25  |     |      |
| SO5350-1 DLB | SAMP      | SW846 9056A           | Sulfate   | <b>,</b> | 26.6432             | 27          | me/L  | . <b></b>  | 0.1  | 25    | 0.25  |     |      |
| SO5350-6DLB  | SAMP      | SW846 9056A           | Sulfate   |          | -15.9055            | 16          | me/L  | , <b>,</b> | 01   | 25    | 0.25  |     |      |
| SO5463-1     | SAMP      | SW846 9056A           | Sulfate   | 6        | -31.3128            | 31          | me/L  | , <b></b>  | 2.0  | 0637  | 0.13  |     |      |
| SO5463-2     | SAMP      | SW846 9056A           | Sulfate   | 7        | -22.0964            | 22          | me/L  |            | 2.0  | .0637 | 0.13  |     |      |
| WG305663-1   | MBLANK    | SW846 9056A           | Sulfate   | ,        | .007                | U 0.50      | m@/L  | <b></b>    | 1.0  | 25    | 0.25  |     |      |
| WG305663-1   | MBLANK    | SW846 9056A           | Sulfate   | ,        | .007                | U 1.0       | mg/L  | F          | 1.0  | .0637 | 0.064 |     |      |
| WG305663-2   | LCS       | SW846 9056A           | Sulfate   |          | 3.5238              | 3.52        | me/L  |            | 1.0  | 0637  | 0.064 |     | 93.0 |
| WG305663-2   | LCS       | SW846 9056A           | Sulfate   | ,        | 3.5238              | 3.52        | me/L  |            | 1.0  | 25    | 0.25  |     | 03.0 |
| WG305663-3   | MS        | SW846 9056A           | Sulfate   |          | -18.8137            | * 19.       | me/L  |            | 1.0  | 25    | 0.25  |     | 77.6 |
| WG305663-4   | MSD       | SW846 9056A           | Sulfate   |          | 18.709              | * 19.       | me/L  |            | 1.0  | .25   | 0.25  | 0   | 74.8 |
| WG305663-5   | MS        | SW846 9056A           | Sulfate   | 2        | 28.1501             | * 28.       | mg/L  |            | 2.0  | .0637 | 0.13  | ,   | 80.7 |
| WG305663-6   | MSD       | SW846 9056A           | Sulfate   | 7        | . 28.3866           | * 28.       | me/L  |            | 2.0  | .0637 | 0.13  |     | 83.9 |
| Comments:    |           |                       |           |          |                     |             |       |            |      |       |       |     |      |
| SO5350-6     | M         | MS/MSD                |           |          |                     |             |       |            |      |       |       |     |      |
| SO5463-1     | An        | Anions report Cl & S( |           |          |                     |             |       |            |      |       |       |     |      |
| SO5463-2     | M         | MS/MSD, Anions rep    |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-1   | SC        | SO5350-6              |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-2   | SC        | SO5350-6              |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-3   | SC        | SO5350-6              |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-4   | SC        | SO5350-6              |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-5   | SC        | SO5463-2              |           |          |                     |             |       |            |      |       |       |     |      |
| WG305663-6   | SC        | SO5463-2              |           |          |                     |             |       |            |      |       |       |     |      |
| ₽            |           |                       |           |          |                     |             |       |            |      |       |       |     |      |

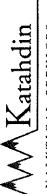
Date: 9/7/21

Y.

Accepted by:\_\_

Date: 9/7/11

Entered by: 55





**Date Analyzed:** 06-SEP-21

Analyst Initials: SS/ZF

07-SEP-21

Wet Chemistry Batch Report

Cent No E87604 

> WG305662 **Batch:**

**Prep Chemist: SS** Prep Method: N/

| V/A<br>V/A<br>S/ZF<br>S/ZF<br>S/ZF<br>Rpt. Result<br>15<br>14<br>14<br>16 |    |  | Units PQL PQL MDL MDL RPD Rec. | 1 1.0 .25 | 1 1.0 .25 | mg/L 1 1.0 .25 0.25 | 1 1.0 .25 |  |
|---------------------------------------------------------------------------|----|--|--------------------------------|-----------|-----------|---------------------|-----------|--|
| 02<br><b>Rpt. Result</b><br>15<br>14<br>20<br>20                          |    |  |                                | me/L 1    | me/L l    | mg/L l              | mg/L 1    |  |
|                                                                           | 70 |  | Rpt. Result 1                  | 15 n      | 14 1      | 20 n                |           |  |

| Sample<br>SO5254-10DLB       | 01 010           |                            | <b>Parameter</b><br>Sulfate | DF | Result<br>15.2919 | Rpt. Result |      | - PQL     | E DT | MDL<br>25 | . <del>.</del> | RPD F | Rec. |
|------------------------------|------------------|----------------------------|-----------------------------|----|-------------------|-------------|------|-----------|------|-----------|----------------|-------|------|
| SO5254-11DLB<br>SO5254-12DLB | 3 SAMP<br>8 SAMP | SW846 9056A<br>SW846 9056A | Sulfate                     |    | 14.2043           | 4           | mg/L |           | 0.1  | 25        | 0.25           |       |      |
| SO5254-13DLB                 | . •1             | SW846 9056A                | Sulfate                     | -  | 16.2326           | 16 4        | me/L | ~ ,       | 0.1  | j K       | 52.0           |       |      |
| SO5254-14DLB                 | 01               | SW846 9056A                | Sulfate                     |    | •1.4146           | 4           | me/L | 4 <b></b> | 1.0  | 25        | 0.25           |       |      |
| SO5254-IDLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 7.5811            | 7.6         | me/L |           | 1.0  | 25        | 0.25           |       |      |
| SO5254-2DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 6443              | J 0.64      | mg/L |           | 1.0  | 52        | 0.25           |       |      |
| SO5254-3DLB                  | SAMP             | SW846 9056A                | Sulfate                     | -  | 23.0956           | 23          | mg/L |           | 1.0  | 25        | 0.25           |       |      |
| SO5254-4DLB                  | SAMP             | SW846 9056A                | Sulfate                     | _  | 9.6209            | 9.6         | me/L |           | 1.0  | .25       | 0.25           |       |      |
| SO5254-5DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 1.3711            | 1,4         | me/L |           | 1.0  | .25       | 0.25           |       |      |
| SO5254-6DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 30.7026           | 31          | me/L |           | 1.0  | .25       | 0.25           |       |      |
| SO5254-7DLB                  | SAMP             | SW846 9056A                | Sulfate                     | -  | 2.1519            | 2.2         | me/L | <b>,</b>  | 1.0  | 25        | 0.25           |       |      |
| SO5254-8DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | - 11.3658         | 11          | me/L | -         | 1.0  | 25        | 0.25           |       |      |
| SO5254-9DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 4.5597            | 4.6         | mg/L |           | 1.0  | -25       | 0.25           |       |      |
| SO5261-1DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | -29.3742          | 29          | mg/L | -         | 1.0  | .25       | 0.25           |       |      |
| SO5261-2DLB                  | SAMP             | SW846 9056A                | Sulfate                     | •  | 10.0273           | 10          | me/L | -         | 1.0  | .25       | 0.25           |       |      |
| SO5261-4DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 13.2622           | 13          | me/L | -         | 1.0  | .25       | 0.25           |       |      |
| SO5261-5DLB                  | SAMP             | SW846 9056A                | Sulfate                     |    | 13.2953           | 13          | mg/L |           | 1.0  | .25       | 0.25           |       |      |
| SO5261-6DLB                  | SAMP             | SW846 9056A                | Sulfate                     | -  | 10.1393           | 10          | me/L | 1         | 1.0  | .25       | 0.25           |       |      |
| SO5512-1                     | SAMP             | SW846 9056A                | Sulfate                     | ы  | - 29.7602         | 30          | me/L | 1         | 2.0  | .0637     | 0.13           |       |      |
| WG305662-1                   | MBLANK           | SW846 9056A                | Sulfate                     | -  | .0065             | U 0.50      | me/L |           | 1.0  | 25        | 0.25           |       |      |
| WG305662-1                   | MBLANK           | SW846 9056A                | Sulfate                     | -  | .0065             | U 1.0       | me/L |           | 1.0  | 0637      | 0.064          |       |      |
| WG305662-2                   | TCS              | SW846 9056A                | Sulfate                     | -  | 3.5528            | 3.55        | me/L |           | 1.0  | .0637     | 0.064          | 6     | 4.7  |
| WG305662-2                   | LCS              | SW846 9056A                | Sulfate                     | -  | 3.5528            | 3.55        | mg/L |           | 1.0  | .25       | 0.25           | 6     | 94.7 |
|                              |                  |                            |                             |    |                   |             |      |           |      |           |                |       |      |
| Comments:                    |                  |                            |                             |    |                   |             |      |           |      |           |                |       |      |
| SO5754-1                     | 5                | Ter SNOINE VOINS           |                             |    |                   |             |      |           |      |           |                |       |      |
|                              | . 5              | THE SUCINY 3200/05         |                             |    |                   |             |      |           |      |           |                |       |      |

Date: 7/7/1M SW9056-ANIONS ref Anions= NO2, NO3, 5 Entered by: <u>SS</u> S05254-11 S05254-12 S05254-13 S05254-13 SO5254-14 SO5254-10 S05254-3 S05254-4 S05254-5 SO5261-4 SO5261-5 SO5261-6 SO5254-2 SO5254-7 SO5254-6 SO5254-8 SO5254-9 SO5261-1 SO5261-2

Date:  $9/\frac{3}{2}/21$ 

ZF

Accepted by:

# Katahdin Analytical Services 5000224





# Wet Chemistry Batch Report

| SS/ZF             | 06-SEP-21<br>07-SEP-21 |
|-------------------|------------------------|
| Analyst Initials: | Date Analyzed:         |

Batch: WG305662 Prep Method: N/A

|          | Adi. |
|----------|------|
|          |      |
|          |      |
|          |      |
|          |      |
| SS/ZF    |      |
| emist: S |      |
| rep Ch   |      |
|          |      |
|          |      |

| Rec.             |                                                |
|------------------|------------------------------------------------|
| RPD 1            |                                                |
| Adj.<br>MDL F    |                                                |
| MDL N            |                                                |
| Adj.<br>PQL      |                                                |
| PQL              |                                                |
| Units            |                                                |
| Rpt. Result      |                                                |
| Result           |                                                |
| DF               |                                                |
| arameter         |                                                |
| P:               |                                                |
| Method           | Anions please report (<br>SO5254-1<br>SO5254-1 |
| Samp Type Method | Anic<br>SOS<br>SOS                             |
| Sample           | SO5512-1<br>WG305662-1<br>WG305662-2           |

Date: 7/7/11

X

|                    | Sequence Overview                                 |             |                     |
|--------------------|---------------------------------------------------|-------------|---------------------|
| Sequence Details   |                                                   |             |                     |
| Name:              | 090621A REPROC                                    | Created On: | 10/Feb/16 13:48:22  |
| Directory:         | Instrument Data\ICS-2100\2021\09-SEP              | Created By: | Katahdin Analytical |
| Data Vault:        | ChromeleonLocal                                   | Updated On: | 07/Sep/21 14:48:47  |
| No. of Injections: | <b>43</b> (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | Updated By: | Katahdin Analytical |
|                    |                                                   |             | <b>-</b>            |

| Injection | Details          |          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |          |
|-----------|------------------|----------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| No.       | Injection Name   | Position | Туре           | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Inject Time        | Status   |
|           |                  |          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |          |
|           |                  |          |                | 같은 말랐다.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |          |
| 1.        | CCV              | 1        | Check Standard | 06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 13:41:48 | Finished |
| 2         | CCB              | 2        | Unknown        | 4 2 <b>1 1 1 1 1 1</b> 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 06/Sep/21 14:00:00 | Finished |
| 3         | LCS              | 3        | Check Standard | 07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 14:18:48 | Finished |
| 4         | LCS              | 4        | Check Standard | 07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 14:37:36 | Finished |
| 5         | SO5254-1         | 5        | Unknown        | a da Statute                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 06/Sep/21 14:56:24 | Finished |
| 6         | SO5254-2         | 6        | Unknown        | ango farransin aar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 15:15:12 | Finished |
| 7         | SO5254-3         | 7        | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 15:34:01 | Finished |
| 8         | SO5313-7         | 43       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 15:52:49 | Finished |
| 9         | CCV              | 8        | Check Standard | 06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 16:11:42 | Finished |
| 10        | CCB              | 9        | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 16:30:36 | Finished |
| 10        | SO5254-4         | 10       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 16:49:24 | Finished |
| 11        | SO5254-5         | 11       | Unknown        | anten ante | 06/Sep/21 17:08:11 | Finished |
| 12        | SO5254-6         | 12       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 17:26:59 | Finished |
| 13        | SO5254-0         | 13       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 17:45:47 |          |
| 14        | SO5254-7         | 14       |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | Finished |
| 15<br>16  |                  | 14       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 18:04:35 | Finished |
|           | SO5254-9         |          | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 18:23:23 | Finished |
| 17        | SO5254-10        | 16       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 18:42:11 | Finished |
| 18        | CCV              | 17       | Check Standard | 06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 19:00:59 | Finished |
| <u>19</u> | CCB              | 18       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 19:19:48 | Finished |
| 20        | <u>SO5254-11</u> | 19       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 19:38:36 | Finished |
| <u>21</u> | S05254-12        | 20       | Unknown        | ente fente de la                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 06/Sep/21 19:57:24 | Finished |
| <u>22</u> | SO5254-13        | 21       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 20:16:12 | Finished |
| 23        | SO5254-14        | 22       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 20:35:00 | Finished |
| 24        | SO5261-1         | 23       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 20:53:48 | Finished |
| 25        | SO5261-2         | 24       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 21:12:36 | Finished |
| 26        | SO5261-4         | 25       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 21:31:24 | Finished |
| 27        | SO5261-5         | 26       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 21:50:12 | Finished |
| 28        | SO5261-6         | 27       | Unknown        | e en en en en en                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 06/Sep/21 22:09:00 | Finished |
| 29        | SO5313-1         | 28       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 22:27:49 | Finished |
| 30        | CCV              | 29       | Check Standard | 06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 06/Sep/21 22:46:37 | Finished |
| 31        | CCB              | 30       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 23:05:25 | Finished |
| 32        | SO5350-1         | 31       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 23:24:13 | Finished |
| 33        | SO5350-6         | 32       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06/Sep/21 23:43:01 | Finished |
| 34        | SO5350-6 MS      | 33       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 07/Sep/21 00:01:50 | Finished |
| 35        | SO5350-6 MSD     | 34       | Unknown        | 0.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 07/Sep/21 00:20:38 | Finished |
| 36        | SO5463-1         | 35       | Unknown        | 9.18 \$2.54 (S. S.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 07/Sep/21 00:39:26 | Finished |
| 37        | SO5463-2         | 36       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 07/Sep/21 00:58:14 | Finished |
| 38        | SO5463-2 MS      | 37       | Unknown        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 07/Sep/21 01:17:03 | Finished |
| 39        | SO5463-2 MSD     | 38       | Unknown        | 218 2805 B) 680                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 07/Sep/21 01:35:51 | Finished |
| 40        | SO5512-1         | 39       | Unknown        | area area area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 07/Sep/21 01:54:39 | Finished |
| 41        | LCS              | 40       | Check Standard | 07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 07/Sep/21 02:13:27 | Finished |
| 42        | CCV              | 41       | Check Standard | 06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 07/Sep/21 02:32:15 | Finished |



# Katahdin Analytical Services 5000227

# IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

| LMIX     | ID: W20334                |    | Expiration Dat           | e:09/14/21 |                     | Date: 08/31/21 |                   |
|----------|---------------------------|----|--------------------------|------------|---------------------|----------------|-------------------|
| ALYTE    | INITIAL<br>AMOUNT<br>(mL) | OF | STOCK<br>CONC.<br>(mg/L) | то         | FINAL<br>VOLUME(mL) | =              | FINAL CONC.(mg/L) |
| CI       | 2.0                       | OF | 1000                     |            |                     | =              | 20                |
| 2 (as N) | 0.8                       | OF | 1000                     |            |                     |                | 8                 |
| 3 (as N) | 0.8                       | OF | 1000                     | 1          |                     |                | 8                 |
| Br       | 4.0                       | OF | 1000                     | то         | 100                 | =              | 40                |
| SO4      | 4.0                       | OF | 1000                     |            |                     | =              | 40                |
| F        | 1.0                       | OF | 1000                     |            |                     |                | 10                |
| 4 (as P) | 1                         | OF | 1000                     |            |                     |                | 10                |

### WORKING STANDARDS

### Standards prepared on each day of use

|   | INITIAL        | <u>~ 111</u> | Final          |     |      | FINAL ( | CONC. | (mg/L) |      |      | STD        |
|---|----------------|--------------|----------------|-----|------|---------|-------|--------|------|------|------------|
| • | AMOUNT<br>(mL) | OF           | Volume<br>(mL) | CI  | NO2  | NO3     | Br    | SO4    | PO4  | F    | ID*        |
|   | 1              | ICAL         | 1              | 20  | 8    | 8       | 40    | 40     | 10   | 10   | IC7-083121 |
|   | 0.5            | IC7          | 1              | 10  | 4    | 4       | 20    | 20     | 5    | 5    | IC6-083121 |
|   | 0.25           | IC7          | 1              | 5   | 2    | 2       | 10    | 10     | 2.5  | 2.5  | IC5-083121 |
|   | 0.25           | IC6          | 1              | 2.5 | 1    | 1       | 5     | 5      | 1.25 | 1.25 | IC4-083121 |
|   | 0.1            | IC6          | 1              | 1   | 0.4  | 0.4     | 2     | 2      | 0.5  | .5   | IC3-083121 |
| - | 0.1            | IC3          | 1              | 0.1 | 0.04 | 0.04    | 0.2   | 0.2    | 0.05 | .05  | IC2-083121 |
|   | 0.5            | IC7          | 1              | 10  | 4    | 4       | 20    | 20     | 5    | 5    | CCV-090621 |

### \* STD ID is prefix followed by the date of preparation (ie. IC6-020216)

| S/MATRIX SPIKE MIX | ID: W20335 | Expiration Date:091521 |  |
|--------------------|------------|------------------------|--|

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

| 3  | NO2<br>(as N) | NO3<br>(as N) | Br   | SO4  | PO4<br>(as P) | F    | STD<br>ID*    |
|----|---------------|---------------|------|------|---------------|------|---------------|
| 75 | 1.14          | 0.845         | 3.75 | 3.75 | 1.22          | 3.75 | IC-LCS-090621 |

### \* STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)

Comments: **2x dil =** 0.5mL 1x $\rightarrow$ 1.0mL **20x dil =** 0.05mL 1x $\rightarrow$ 1.0mL **Pipettes:** W3, W5 **5x dil =** 0.2mL 1x→1.0mL **50x dil =** 0.02mL 1x→1.0mL

**10x dil** = 0.1mL 1x→1.0mL **100x dil** = 0.1mL 10x→1.0mL

WL-068 - Revision 2 - 04/08/2019

Katahdin Analytical Services 5000228

| 1-1-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1        | 1.5           |                           | Analvtic                  | Analytical Column S/N: 191122038                                            | n S/N:  6  | 111220       | 35                                                                                                         |                                           | Calibration                  | Calibration Date: 08/31/7/                                                                                 |
|------------------------------------------------|---------------|---------------------------|---------------------------|-----------------------------------------------------------------------------|------------|--------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------|
| Analysis Date: 01/06/2                         |               |                           | Guard C                   | Guard Column S/N: [1 [] 20342                                               | N: L1C     | 12034        | 5 ~                                                                                                        |                                           | Calibratior                  | Calibration Sequence: 083121A CAL                                                                          |
| Analysis Sequence (07/06/10                    | 17901         |                           | Suppres                   | Suppressor S/N:                                                             | 1 8087     | 620528081    |                                                                                                            |                                           | If box i<br>Refer t          | If box at left is checked, continued from previous page.<br>Refer to previous page for header information. |
| Analyst: Z. F<br>Reporting / Reanalysis Codes: | <b>&gt;</b> 0 | Report with<br>Report, pe | out manipu<br>ak automati | Report without manipulation<br>Report, peak automatically reintegrated with | ated with  | A Rei        | M Report, peak manually integrated<br>A Report, peak manually assigned<br>D Do not report reanalyze sample | nanually in<br>nanually as<br>reanalyze s | legrated<br>signed<br>sample | Method Codes:<br>E EPA 300.0<br>SW SW846 9056A                                                             |
|                                                | Dilution      | Method                    | Smart                     | Report o                                                                    | r Reanalyz | e (enter al  | Report or Reanalyze (enter appropriate code):                                                              | code):                                    | PO,                          | Comments                                                                                                   |
| Katahdin Sample Number                         | Factor        | Code                      | E/                        | 5                                                                           | LON V      |              | 5                                                                                                          |                                           |                              |                                                                                                            |
| 30                                             |               |                           | >                         | >                                                                           | >          | ,   .        | >                                                                                                          | • <                                       |                              |                                                                                                            |
| BJJ                                            |               | 1                         | 3                         | 2                                                                           | 2          | 5            | ź                                                                                                          | ź                                         |                              |                                                                                                            |
| LCS                                            |               |                           |                           |                                                                             |            |              |                                                                                                            |                                           |                              |                                                                                                            |
| L cS                                           |               |                           |                           |                                                                             |            | $\mathbf{X}$ |                                                                                                            |                                           |                              |                                                                                                            |
| 50 S 254-1                                     |               | s                         |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| 21                                             |               | •                         |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| -3                                             | -             |                           |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| 5313-7                                         |               | -+                        |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| l                                              |               |                           | >                         | >                                                                           | >          | >            | >                                                                                                          | >                                         |                              |                                                                                                            |
| CC.R                                           |               |                           | ٢                         | ٢                                                                           | ٢          | ₹            | ゴ                                                                                                          | ٤                                         |                              |                                                                                                            |
| 2254-4                                         |               | S                         |                           |                                                                             |            | $\mathbf{i}$ |                                                                                                            |                                           |                              |                                                                                                            |
| · ·                                            | -             | <b></b>                   |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| .6                                             |               |                           |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| 1,                                             |               |                           |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| - 8                                            |               |                           |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| 61                                             | -             |                           |                           |                                                                             |            | $\mathbf{Y}$ |                                                                                                            |                                           |                              |                                                                                                            |
| -10                                            |               | -[                        |                           |                                                                             |            | $\mathbf{Y}$ |                                                                                                            |                                           |                              |                                                                                                            |
| 3                                              |               |                           |                           | >                                                                           | >          | >            | >                                                                                                          | > {                                       |                              |                                                                                                            |
| Cr.B                                           |               |                           | Z                         | <u>र</u>                                                                    | 2          | \$           | 2                                                                                                          | 2                                         |                              |                                                                                                            |
| - ( ) -                                        |               | S                         |                           |                                                                             |            | $\downarrow$ |                                                                                                            |                                           |                              |                                                                                                            |
| 21-                                            |               | -                         |                           |                                                                             |            | >            |                                                                                                            |                                           |                              |                                                                                                            |
| -13                                            | -             | -1                        |                           |                                                                             |            | <b>&gt;</b>  |                                                                                                            |                                           |                              |                                                                                                            |
|                                                |               |                           |                           |                                                                             |            |              |                                                                                                            |                                           |                              |                                                                                                            |
|                                                |               |                           |                           |                                                                             |            |              |                                                                                                            |                                           |                              |                                                                                                            |

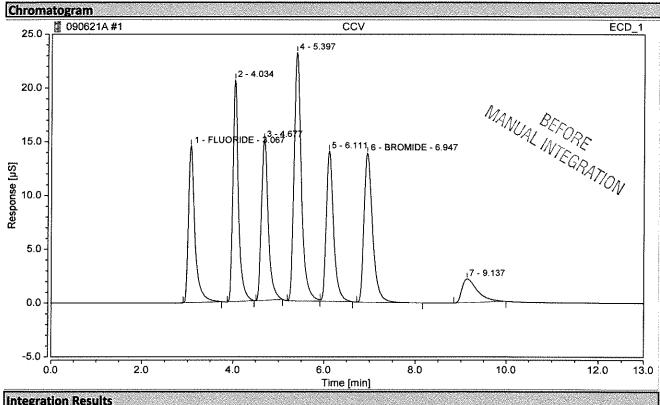
s; w6305663 → R575948

950**5** 

0000013

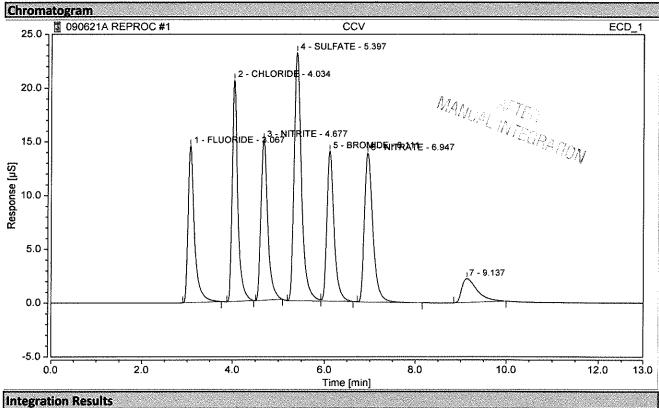
| strument IC-3)                    |                   | - province nade       | ormation.                                                                                                   | ø                                                                  |                                 | *                                  |     |        |    |    |         |     |        |     |             |         |    |   | 2 11 1 2 2     |          |    |                                        |    |      |        |             |            | 519/2/2 |
|-----------------------------------|-------------------|-----------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------|------------------------------------|-----|--------|----|----|---------|-----|--------|-----|-------------|---------|----|---|----------------|----------|----|----------------------------------------|----|------|--------|-------------|------------|---------|
| Dionex ICS-2100 (Instrument IC-3) | Calibration Date: | Calibration Sequence: | If box at left is checked, continued inon previous press.<br>Refer to previous page for header information. | Method Codes:<br>E EPA 300.0                                       | SW SW846 90004                  |                                    |     |        |    |    |         |     |        |     |             |         |    |   | \r<br>\r<br>\r |          |    |                                        |    | -1 - |        |             |            |         |
|                                   | Calibrati         | Calibrat              | Ø                                                                                                           | Ily integrated<br>Ily assigned                                     | lyze sample                     | 3 PO4                              |     |        |    |    |         |     |        |     | <pre></pre> |         |    |   |                |          |    |                                        |    |      | ľ<br>L | <b>&gt;</b> | 5          |         |
| ROMATOGRAPHY RUNLOG               |                   |                       |                                                                                                             | Report, peak manually integrated<br>Report, peak manually assigned | Do not report, reanalyze sample | Br NO                              | S S |        |    |    |         |     |        | >   | 2<br>く      |         |    |   |                |          |    |                                        |    |      | 2      | >           | ź          |         |
| TOGRAF                            |                   |                       |                                                                                                             | M Repo                                                             | R Do n                          | ze (enter app<br>SO <sub>4</sub> / | >   |        | >  |    | > <br>> |     |        | >   | ٤           |         | >` | > | >              | >        | >  |                                        | >  | >    | d      | >           | 2          |         |
| HROMA                             | :N/S umr          | S/N:                  | Ä                                                                                                           | toorsted with                                                      | legrareu mur                    | rt or Reanaly<br>NO <sub>2</sub>   |     |        |    |    |         |     |        | >   | 5           |         |    |   |                |          |    |                                        |    |      |        | >           | 21<br>2    |         |
| ION CH                            | Analytical Colum  | Guard Column S/N:     | Suppressor S/N:                                                                                             | nipulation                                                         | matically rein<br>martPeak      | CI                                 |     |        |    |    |         |     |        |     | ۲<br>۲      |         |    |   |                | Ø        | 22 | X                                      | ð  | X    | 2      | ~<br>_<br>_ | 2          |         |
| Ses                               |                   | Guai                  | Sup                                                                                                         | ort without ma                                                     | ort, peak auto<br>S             | thod F                             |     |        |    |    |         |     |        | 7   | 2           | S       |    |   |                | S        |    |                                        |    | S    |        |             |            |         |
| cal Servic                        |                   |                       |                                                                                                             | <ul> <li>Repc</li> </ul>                                           | S Rep(                          | Dilution Me                        |     | -      |    |    | /       | -   |        |     |             | ~       |    |   | -1             | 4        | 2  |                                        | -1 | 2    |        |             |            |         |
| Katahdin Analvtical Services      | Analvsis Date:    | Analysis Santance:    | alysis ocqueries                                                                                            | Analyst:<br>Reporting / Reanalysis Codes:                          |                                 | Katahdin Sample Number             | +   | 1-1925 | ۲. | 71 | - S     | - 6 | 5313-1 | 7.5 | L R L       | 53.56-1 | -6 |   | - 6 MSD        | 5463 . 1 | -2 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |    |      | LCS    |             | NUN<br>NUN | 2       |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | CCV                    | Run Time (min):   | 12.98  |
| Vial Number:         | 1                      | Injection Volume: | 200.00 |
| Injection Type:      | Check Standard         | Channel:          | ECD_1  |
| Calibration Level:   | 06                     | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 13:41        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |



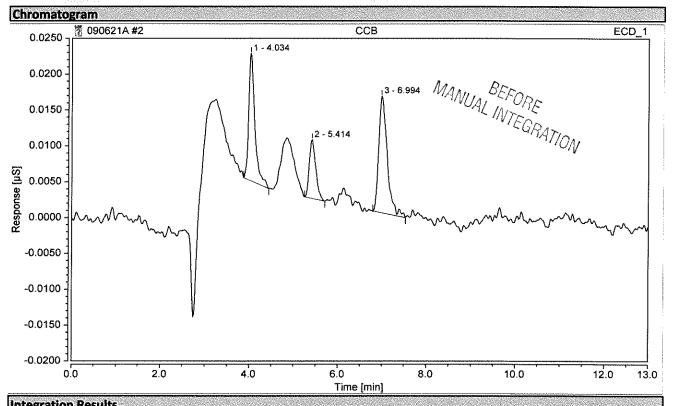
| No.          | Peak Name | Retention Time | Area   | Height      | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|--------------|-----------|----------------|--------|-------------|---------------|-----------------|---------|-----------|
|              |           | min            | µS*min | μS          | %             | %               | mg/L    | %         |
| 1928         | FLUORIDE  | 3.067          | 2.415  | 14.581      | 12.91         | 14.12           | 5.1177  | 2.3531    |
| n.a. 🖔       | CHLORIDE  | n.a.           | n.a.   | n.a.        | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a.         | NITRITE   | n.a.           | n.a.   | n.a.        | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a. 🔇       | SULFATE   | n.a.           | n.a.   | n.a.        | n.a.          | n.a.            | n.a.    | n.a.      |
| <b>6</b> 888 | BROMIDE   | 6.947          | 3.010  | 13.854      | 16.09         | 13.41           | 19.9168 | -0.4161   |
| n.a. 🖄       | NITRATE   | n.a.           | n.a.   | n.a.        | n.a.          | n.a.            | n.a.    | n.a.      |
| <u>n.a.</u>  | PHOSPHATE | n.a.           | n.a.   | <u>n.a.</u> | n.a.          | n.a.            | n.a.    | n.a.      |
| Total        | •         |                | 5.425  | 28.435      | 29.00         | 27.53           |         |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |  |  |  |
| Vial Number:             | 1                      | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 13:41        | Sample Weight:    | 1.0    |  |  |  |  |  |  |



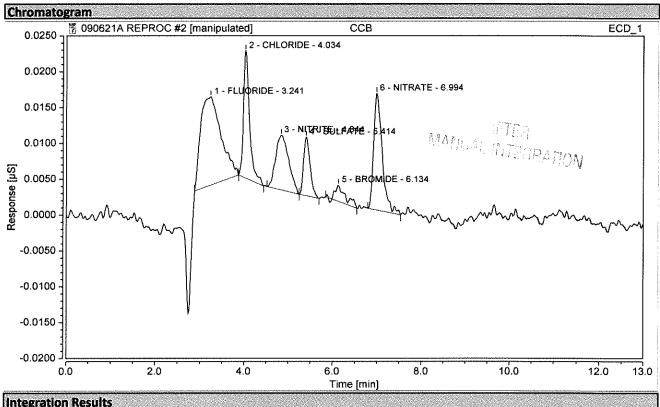
| No.    | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|--------|-----------|----------------|--------|---------|---------------|-----------------|---------|-----------|
|        |           | min            | µS*min | μS      | %             | %               | mg/L    | %         |
| 1333   | FLUORIDE  | 3.067          | 2.415  | 14.581  | 12.91         | 14.12           | 5.1177  | 2.3531    |
| 2      | CHLORIDE  | 4.034          | 2.930  | 20.622  | 15.66         | 19.97           | 10.1216 | 1.2159    |
| 3      | NITRITE   | 4.677          | 2.574  | 14.943  | 13.76         | 14.47           | 4.1931  | 4.8277    |
| 4      | SULFATE   | 5.397          | 4.306  | 23.100  | 23.01         | 22.37           | 20.1732 | 0.8662    |
| 5 388  | BROMIDE   | 6.111          | 2.601  | 13.967  | 13.90         | 13.52           | 20.0792 | 0.3958    |
| 6      | NITRATE   | 6.947          | 3.010  | 13.854  | 16.09         | 13.41           | 4.0300  | 0.7495    |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.      |
| Total: |           |                | 17.835 | 101.068 | 95.32         | 97.86           |         |           |

| Chromatogram and Re    | esults                                                      |                                                                                                                            |
|------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|                        |                                                             |                                                                                                                            |
| ССВ                    | Run Time (min):                                             | 12.99                                                                                                                      |
| 2                      | Injection Volume:                                           | 200.00                                                                                                                     |
| Unknown                | Channel:                                                    | ECD_1                                                                                                                      |
|                        | Wavelength:                                                 | n.a.                                                                                                                       |
| ASDV30mMIsocratic TEST | Bandwidth:                                                  | n.a.                                                                                                                       |
| KAT01 2100             | Dilution Factor:                                            | 1.0                                                                                                                        |
| 06/Sep/21 14:00        | Sample Weight:                                              | 1.0                                                                                                                        |
|                        | CCB<br>2<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | 2 Injection Volume:<br>Unknown Channel:<br>Wavelength:<br>ASDV30mMIsocratic TEST Bandwidth:<br>KAT01 2100 Dilution Factor: |



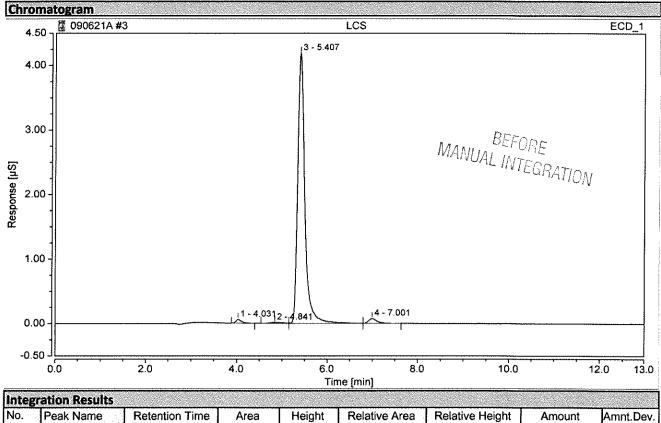
| No.   | Peak Name                                                                                                       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------|-----------------------------------------------------------------------------------------------------------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|       |                                                                                                                 | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| n.a.  | FLUORIDE                                                                                                        | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | CHLORIDE                                                                                                        | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | NITRITE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | SULFATE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | BROMIDE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | NITRATE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | PHOSPHATE                                                                                                       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total | in a fragma a transformation in a start |                | 0.000  | 0.000  | 0.00          | 0.00            |        |           |

|                      | Chromatogram and Res   | ults              |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.99  |
| Vial Number:         | 2                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 14:00        | Sample Weight:    | 1.0    |
|                      |                        | <b>*</b>          |        |



| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount      | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|-------------|-----------|
|       |           | min            | µS*min | μS     | %             | %               | mg/L        | %         |
| 138   | FLUORIDE  | 3.241          | 0.007  | 0.012  | 37.19         | 19.16           | 0.0140      | n.a.      |
| 2     | CHLORIDE  | 4.034          | 0.003  | 0.018  | 16.19         | 27.55           | 0.0998      | n.a.      |
| 3     | NITRITE   | 4.844          | 0.003  | 0.008  | 14.95         | 11.86           | 0.0043      | n.a.      |
| 4     | SULFATE   | 5.414          | 0.001  | 0.008  | 7.85          | 12.69           | 0.0065      | n.a.      |
| 5     | BROMIDE   | 6.134          | 0.001  | 0.002  | 3.33          | 3.48            | 0.0032      | n.a.      |
| 6     | NITRATE   | 6.994          | 0.004  | 0.016  | 20.49         | 25.26           | 0.0335      | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | <u>n.a.</u> | n.a.      |
| Total | *         |                | 0.018  | 0.064  | 100.00        | 100.00          |             |           |

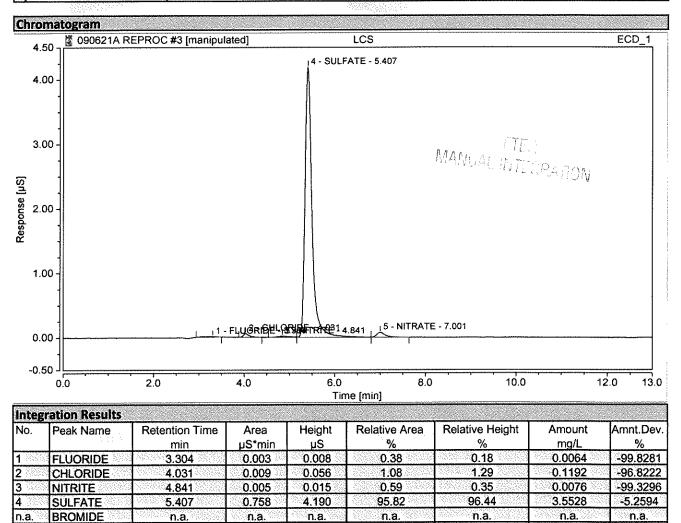
|                      | Chromatogram and Res   | sults             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------|------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Injection Details    |                        |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Injection Name:      | LCS                    | Run Time (min):   | 12.98                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Vial Number:         | 3                      | Injection Volume: | 200.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Injection Type:      | Check Standard         | Channel:          | ECD_1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Calibration Level:   | 07                     | Wavelength:       | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Injection Date/Time: | 06/Sep/21 14:18        | Sample Weight:    | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                        |                   | With the design of the second s |



| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| п.а.  | FLUORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total |           | 이 아이가 가지 않는 것을 했다.    | 0.000          | 0.000        | 0.00               | 0.00                 |                |                |

# Katahdin Analytical Services 5000235

|                      | Chromatogram and Re    | sults                       |        |
|----------------------|------------------------|-----------------------------|--------|
| Injection Details    |                        | pall Company and the second |        |
| Injection Name:      | LCS                    | Run Time (min):             | 12.98  |
| Vial Number:         | 3                      | Injection Volume:           | 200.00 |
| Injection Type:      | Check Standard         | Channel:                    | ECD_1  |
| Calibration Level:   | 07                     | Wavelength:                 | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:                  | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:            | 1.0    |
| Injection Date/Time: | 06/Sep/21 14:18        | Sample Weight:              | 1.0    |



0.017

n.a.

0.791

7.001

n.a.

0.076

n.a.

4.344

2.13

<u>n.a.</u> 100.00 1.74

n.a.

100.00

0.0511

n.a.

-93.9546

n.a.

Chromeleon (c) Dionex Version 7.1.0.898

NITRATE

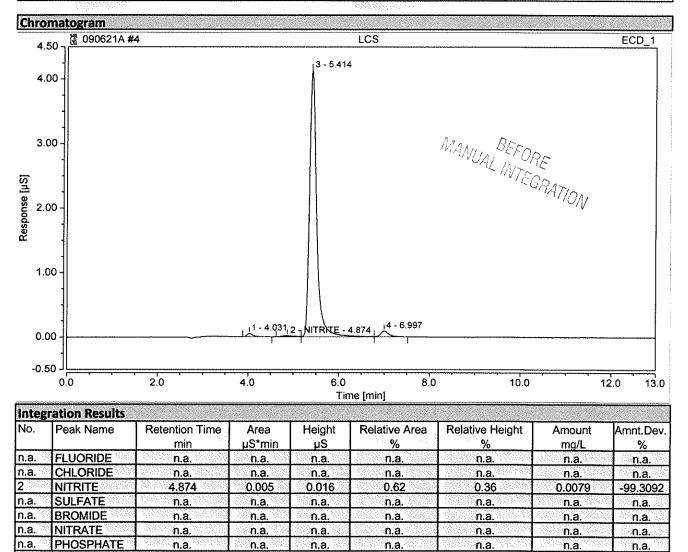
PHOSPHATE

5

n.a.

Total:

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | LCS                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 4                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD 1  |  |  |  |
| Calibration Level:       | 07                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| njection Date/Time:      | 06/Sep/21 14:37        | Sample Weight:    | 1.0    |  |  |  |



0.005

0.016

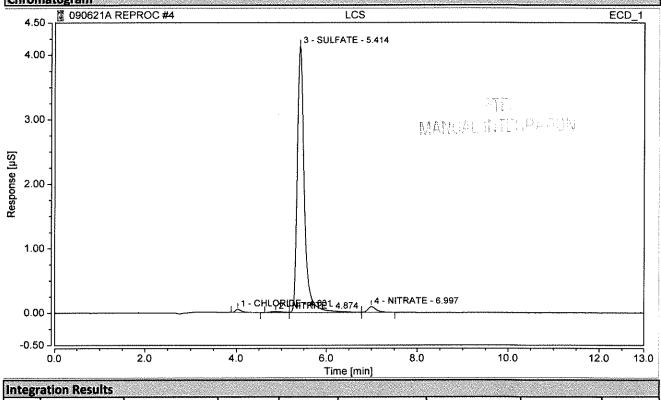
0.62

0.36

Total:

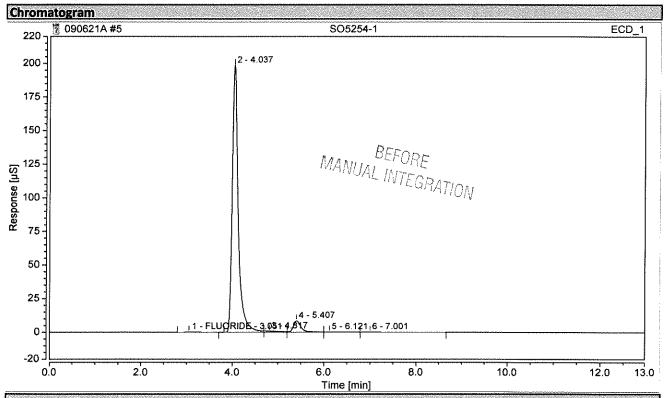
| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | LCS                    | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 4                      | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       | 07                     | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 14:37        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        |                   | ****** |  |  |  |  |

### Chromatogram



| S. Mahalan | ration Results                                                                                                  |                |        |        |               |                 |        |           |
|------------|-----------------------------------------------------------------------------------------------------------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
| No.        | Peak Name                                                                                                       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|            | a de la companya de l | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| n.a.       | FLUORIDE                                                                                                        | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 1 3333     | CHLORIDE                                                                                                        | 4.031          | 0.008  | 0.049  | 1.00          | 1.15            | 0.1168 | -96.8844  |
| 2          | NITRITE                                                                                                         | 4.874          | 0.005  | 0.016  | 0.62          | 0.36            | 0.0079 | -99.3092  |
| 3          | SULFATE                                                                                                         | 5.414          | 0.752  | 4.133  | 95.87         | 96.37           | 3.5238 | -6.0308   |
| n.a.       | BROMIDE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| 4          | NITRATE                                                                                                         | 6.997          | 0.020  | 0.091  | 2.51          | 2.11            | 0.0549 | -93.5053  |
| n.a.       | PHOSPHATE                                                                                                       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:     |                                                                                                                 |                | 0.785  | 4.288  | 100.00        | 100.00          |        |           |

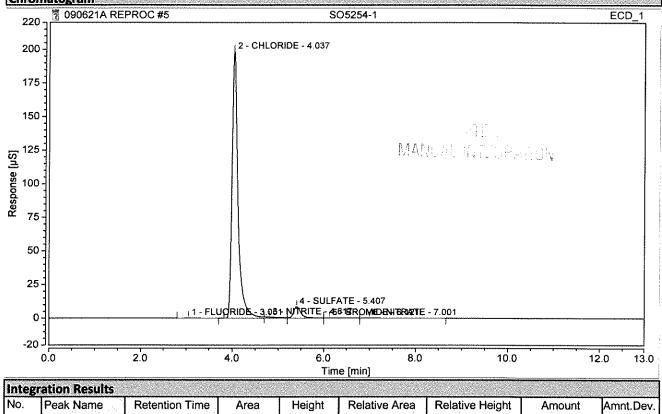
|                      | Chromatogram and I     | Results           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-1               | Run Time (min):   | 12.97  |
| Vial Number:         | 5                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 14:56        | Sample Weight:    | 1.0    |



| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 3325 | FLUORIDE  | 3.051                 | 0.038          | 0.204        | 0.12               | 0.10              | 0.0811         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. 🔇 | BROMIDE   | n.a.                  | n.a.           | n.a.         | <b>n.a</b> .       | n.a.              | n.a.           | n.a.           |
| n.a. 🖄 | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. 🖔 | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  | *         |                       | 0.038          | 0.204        | 0.12               | 0.10              |                |                |

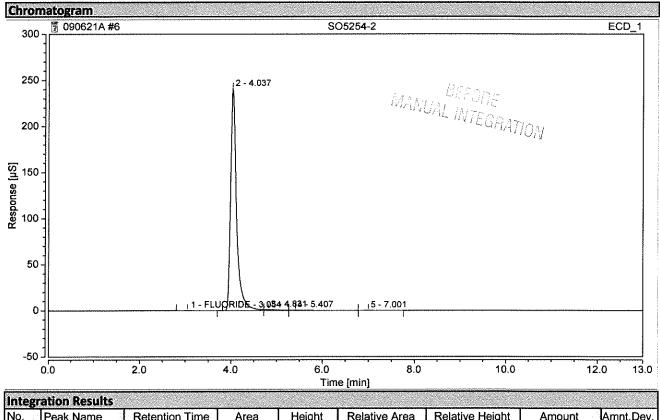
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5254-1               | Run Time (min):   | 12.97  |  |  |  |
| Vial Number:             | 5                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 14:56        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        | 1                 |        |  |  |  |

# Chromatogram



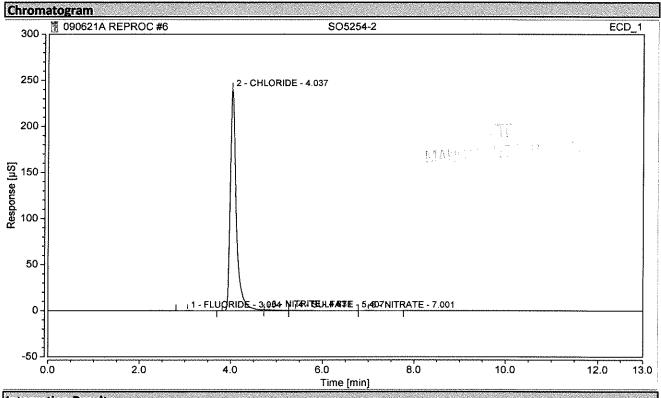
| No.   | Peak Name                               | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev. |
|-------|-----------------------------------------|----------------|--------|---------|---------------|-----------------|----------|-----------|
|       |                                         | min            | µS*min | μS      | %             | %               | mg/L     | %         |
| 1 333 | FLUORIDE                                | 3.051          | 0.038  | 0.204   | 0.12          | 0.10            | 0.0811   | n.a.      |
| 2     | CHLORIDE                                | 4.037          | 30.069 | 198.479 | 93.67         | 95.32           | 103.0573 | n.a.      |
| 3 88  | NITRITE                                 | 4.817          | 0.293  | 0.779   | 0.91          | 0.37            | 0.4775   | n.a.      |
| 4     | SULFATE                                 | 5.407          | 1.618  | 8.511   | 5.04          | 4.09            | 7.5811   | n.a.      |
| 5 200 | BROMIDE                                 | 6.121          | 0.048  | 0.133   | 0.15          | 0.06            | 0.1913   | n.a.      |
| 6 🛞   | NITRATE                                 | 7.001          | 0.033  | 0.114   | 0.10          | 0.05            | 0.0729   | n.a.      |
| n.a.  | PHOSPHATE                               | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| Total | ••••••••••••••••••••••••••••••••••••••• |                | 32.100 | 208.220 | 100.00        | 100.00          |          |           |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5254-2               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 6                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 15:15        | Sample Weight:    | 1.0    |  |  |  |



| No.   | Peak Name          | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|--------------------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 188   | FLUORIDE           | 3.054                 | 0.041          | 0.210        | 0.11               | 0.09              | 0.0868         | n.a.           |
| n.a.  | CHLORIDE           | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | NITRITE            | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | SULFATE            | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | BROMIDE            | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | NITRATE            | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.  | PHOSPHATE          | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total | li shina hashirasi |                       | 0.041          | 0.210        | 0.11               | 0.09              |                |                |

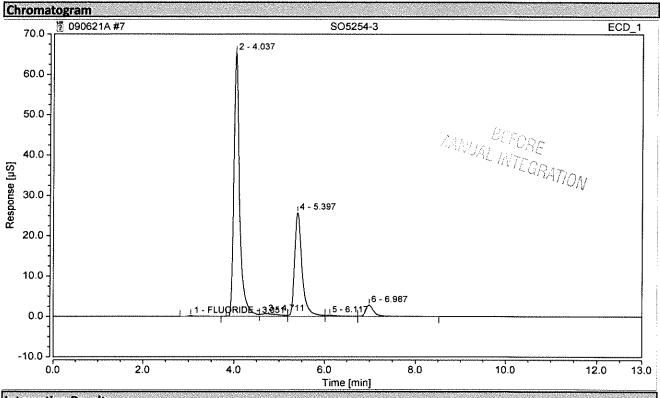
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5254-2               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 6                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 15:15        | Sample Weight:    | 1.0    |  |  |  |



|       | ration Results |                | A resolution of a second second second second | Construction of the second |               |                 |          | and the second se |
|-------|----------------|----------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------|-----------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No.   | Peak Name      | Retention Time | Area                                          | Height                                                                                                         | Relative Area | Relative Height | Amount   | Amnt.Dev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|       |                | min            | µS*min                                        | μS                                                                                                             | %             | %               | mg/L     | %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1     | FLUORIDE       | 3.054          | 0.041                                         | 0.210                                                                                                          | 0.11          | 0.09            | 0.0868   | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2     | CHLORIDE       | 4.037          | 36.385                                        | 240.556                                                                                                        | 98.60         | 99.35           | 124.6848 | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3     | NITRITE        | 4.831          | 0.309                                         | 0.829                                                                                                          | 0,84          | 0.34            | 0.5032   | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4     | SULFATE        | 5.407          | 0.138                                         | 0.413                                                                                                          | 0.37          | 0.17            | 0.6443   | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| n.a.  | BROMIDE        | n.a.           | n.a.                                          | n.a.                                                                                                           | n.a.          | n.a.            | n.a.     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5     | NITRATE        | 7.001          | 0.028                                         | 0.116                                                                                                          | 0.07          | 0.05            | 0.0654   | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| n.a.  | PHOSPHATE      | n.a.           | n.a.                                          | n.a.                                                                                                           | n.a.          | n.a.            | n.a.     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Total |                |                | 36.900                                        | 242.125                                                                                                        | 100.00        | 100.00          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

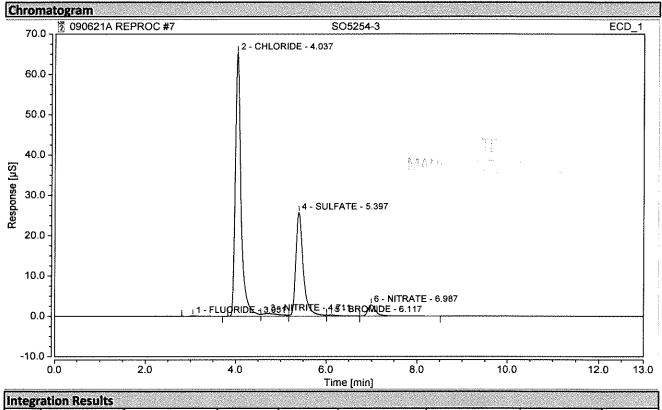
Page 7 of 43

| Injection Details    |                        |                   |        |
|----------------------|------------------------|-------------------|--------|
| Injection Name:      | SO5254-3               | Run Time (min):   | 12.99  |
| Vial Number:         | 7                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 15:34        | Sample Weight:    | 1.0    |



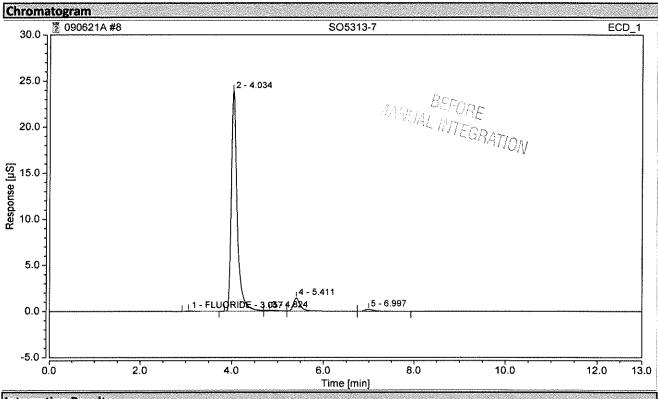
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1333   | FLUORIDE  | 3.051          | 0.029  | 0.143  | 0.19          | 0.15            | 0.0622 | n.a.     |
| n.a.   | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | ิ ก.ล.   |
| n.a. 🔇 | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total  |           | na na hair.    | 0.029  | 0.143  | 0.19          | 0.15            |        |          |

|                      | Chromatogram and Re    | sults             |                                        |
|----------------------|------------------------|-------------------|----------------------------------------|
| Injection Details    |                        |                   |                                        |
| Injection Name:      | SO5254-3               | Run Time (min):   | 12.99                                  |
| Vial Number:         | 7                      | Injection Volume: | 200.00                                 |
| Injection Type:      | Unknown                | Channel:          | ECD_1                                  |
| Calibration Level:   |                        | Wavelength:       | n.a.                                   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                                   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0                                    |
| Injection Date/Time: | 06/Sep/21 15:34        | Sample Weight:    | 1.0                                    |
| 1000                 |                        |                   | ······································ |



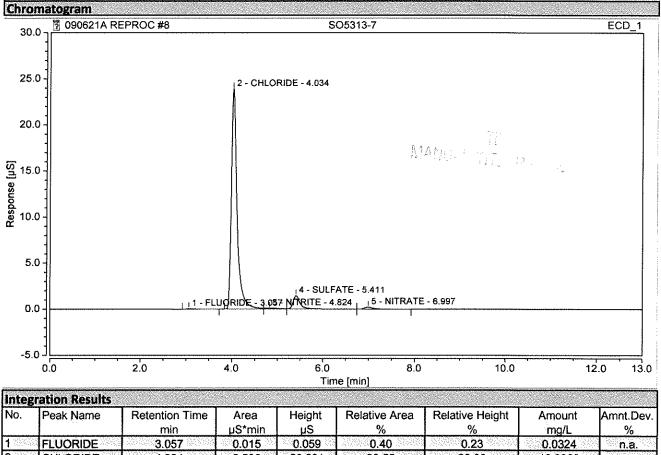
| No.          | Peak Name | Retention Time | Area<br>uS*min | Height | Relative Area<br>%       | Relative Height %                                              | Amount  | Amnt.Dev |
|--------------|-----------|----------------|----------------|--------|--------------------------|----------------------------------------------------------------|---------|----------|
|              |           | min            |                | μS     | denter de la contraction | <ul> <li>A strate devide in the strate terms of the</li> </ul> | mg/L    | 70       |
| 1 333        | FLUORIDE  | 3.051          | 0.029          | 0.143  | 0.19                     | 0.15                                                           | 0.0622  | n.a.     |
| 2 88         | CHLORIDE  | 4.037          | 9.721          | 65.444 | 62.21                    | 68.87                                                          | 33.3766 | n.a.     |
| 3 88         | NITRITE   | 4.711          | 0.279          | 0.637  | 1.79                     | 0.67                                                           | 0.4545  | n.a.     |
| 4 363        | SULFATE   | 5.397          | 4.930          | 25.725 | 31.55                    | 27.07                                                          | 23.0956 | n.a.     |
| <b>5</b> 333 | BROMIDE   | 6.117          | 0.084          | 0.270  | 0.53                     | 0.28                                                           | 0.3883  | n.a.     |
| 6            | NITRATE   | 6.987          | 0.583          | 2.809  | 3.73                     | 2.96                                                           | 0.8036  | n.a.     |
| n.a.         | PHOSPHATE | n.a.           | n.a.           | n.a.   | n.a.                     | n.a.                                                           | n.a.    | n.a.     |
| Total        |           |                | 15.625         | 95.030 | 100.00                   | 100.00                                                         |         |          |

|                      | Chromatogram a         | and Results       |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5313-7               | Run Time (min):   | 12.99  |
| Vial Number:         | 43                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 15:52        | Sample Weight:    | 1.0    |



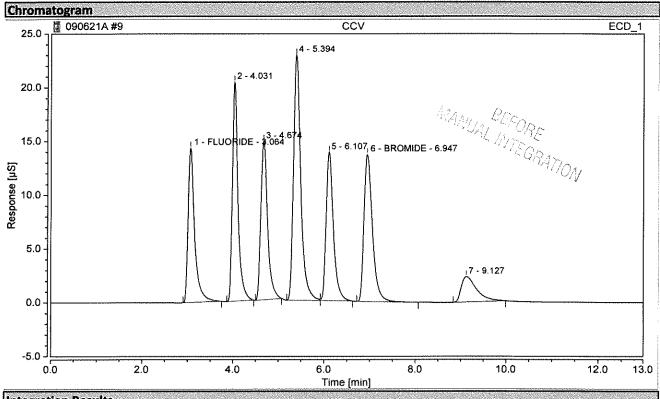
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1      | FLUORIDE  | 3.057          | 0.015  | 0.059  | 0.40          | 0.23            | 0.0324 | n.a.     |
| n.a.   | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total: |           |                | 0.015  | 0.059  | 0.40          | 0.23            |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5313-7               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 43                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 15:52        | Sample Weight:    | 1.0    |  |  |  |



| Total:         | 1. The    | : 1993년 문학 - 2019년 1997년 1997년<br>- 1993년 1997년 - 1997년 | 3.872       | 25.718 | 100.00 | 100.00 |         |              |
|----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|--------|--------|---------|--------------|
| <u>n.a.</u>    | PHOSPHATE | n.a.                                                                                                                                              | n.a.        | n.a.   | n.a.   | n.a.   | n.a.    | n.a.         |
| <u>5</u> (200) | NITRATE   | 6.997                                                                                                                                             | 0.045       | 0.204  | 1.15   | 0.79   | 0.0879  | n.a.         |
| n.a.           | BROMIDE   | n.a.                                                                                                                                              | <u>n.a.</u> | n.a.   | n.a.   | n.a.   | n.a.    | <b>n.a</b> . |
| 4              | SULFATE   | 5.411                                                                                                                                             | 0.267       | 1.454  | 6.90   | 5.65   | 1.2516  | n.a.         |
| 3 3638         | NITRITE   | 4.824                                                                                                                                             | 0.039       | 0.109  | 1.00   | 0.42   | 0.0634  | n.a.         |
| 2 🚟            | CHLORIDE  | 4.034                                                                                                                                             | 3.506       | 23.891 | 90.55  | 92.90  | 12.0968 | n.a.         |
| <b>1</b> 28933 | FLUORIDE  | 3.057                                                                                                                                             | 0.015       | 0.059  | 0.40   | 0.23   | 0.0324  | n.a.         |
|                | <u></u>   | l min                                                                                                                                             | µS*min      | μS     | %      | %      | mg/L    | %            |

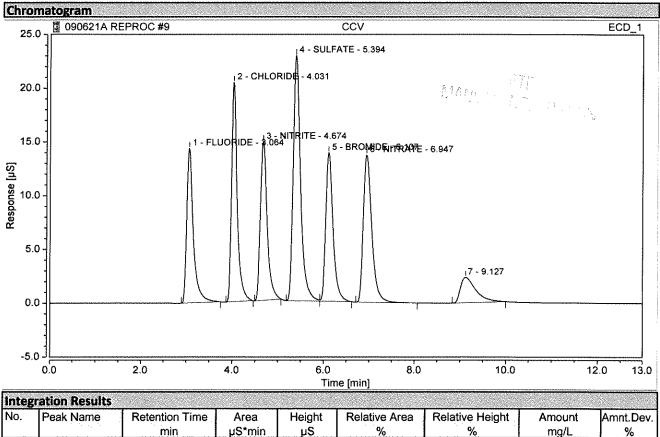
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 8                      | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 16:11        | Sample Weight:    | 1.0    |  |  |  |



| Nt_    |           | Determine The  | A      | 11     | Deletine Area | Dalation Halaba | A       | A         |
|--------|-----------|----------------|--------|--------|---------------|-----------------|---------|-----------|
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev. |
| _      |           | min            | µS*min | μS     | %             | %               | mg/L    | %         |
| 1 2023 | FLUORIDE  | 3.064          | 2.393  | 14.387 | 12.86         | 14.06           | 5.0697  | 1.3942    |
| n.a.   | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a.   | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a. 🛇 | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| 6 🔆    | BROMIDE   | 6.947          | 2.985  | 13.701 | 16.05         | 13.39           | 19.6968 | -1.5161   |
| n.a.   | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.      |
| Total  |           |                | 5.378  | 28.088 | 28.92         | 27.46           |         |           |

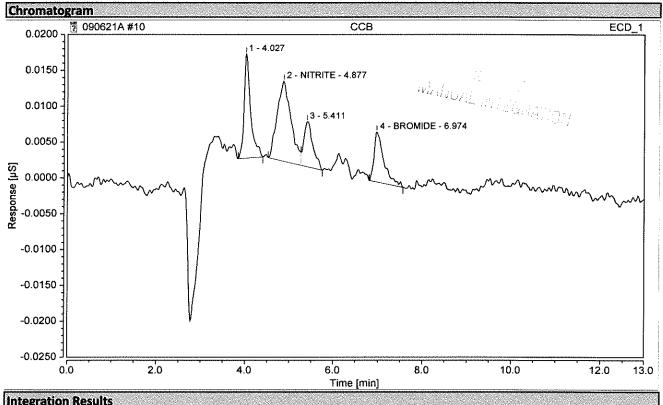
## Katahdin Analytical Services 5000247

| Chromatogram and Results                         |                        |                   |        |  |  |  |  |
|--------------------------------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details                                |                        |                   |        |  |  |  |  |
| Injection Name:                                  | CCV                    | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:                                     | 8                      | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:                                  | Check Standard         | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:                               | 06                     | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:                               | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:                               | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:                             | 06/Sep/21 16:11        | Sample Weight:    | 1.0    |  |  |  |  |
| , na star se | eres (proses)          | · · ·             |        |  |  |  |  |



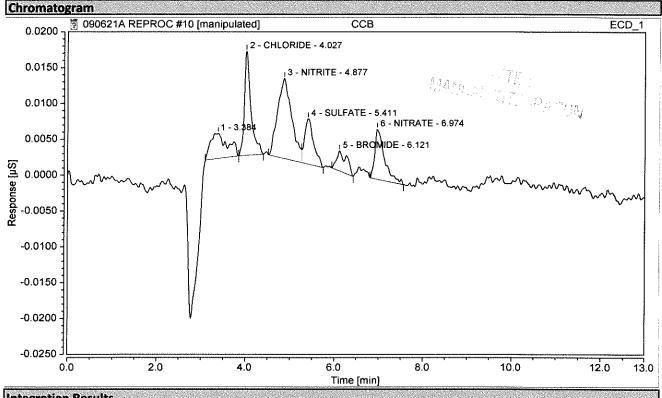
| No.   | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>uS | Relative Area<br>% | Relative Height | Amount<br>ma/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-----------------|----------------|----------------|
| 1233  | FLUORIDE  | 3.064                 | 2.393          | 14.387       | 12.86              | 14.06           | 5.0697         | 1.3942         |
| 2     | CHLORIDE  | 4.031                 | 2.904          | 20.411       | 15.62              | 19.95           | 10.0357        | 0.3569         |
| 3     | NITRITE   | 4.674                 | 2.549          | 14.763       | 13.71              | 14.43           | 4.1525         | 3.8122         |
| 4     | SULFATE   | 5.394                 | 4.258          | 22.839       | 22.90              | 22.33           | 19.9509        | -0.2457        |
| 5 🕸   | BROMIDE   | 6.107                 | 2.582          | 13.823       | 13.88              | 13.51           | 19.8725        | -0.6374        |
| 6     | NITRATE   | 6.947                 | 2.985          | 13.701       | 16.05              | 13.39           | 3.9968         | -0.0810        |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.            | n.a.           | n.a.           |
| Total | :         |                       | 17.672         | 99.923       | 95.02              | 97.69           |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | ССВ                    | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 9                      | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 16:30        | Sample Weight:    | 1.0    |  |  |  |  |



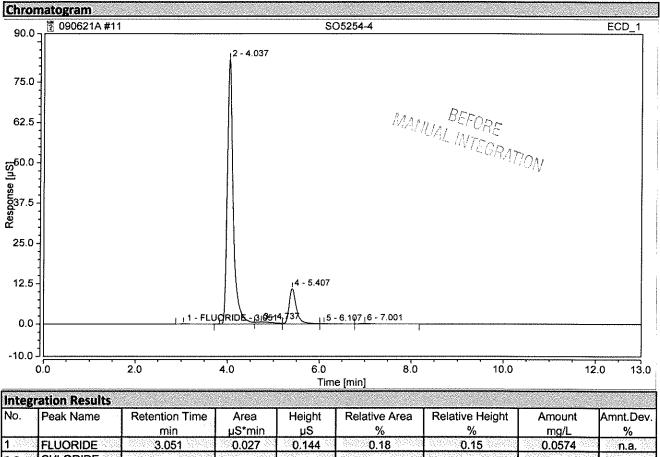
| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| n.a.   | FLUORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n,a.           | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 2.55   | NITRITE   | 4.877                 | 0.004          | 0.011        | 41.46              | 28.66                | 0.0067         | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | п.а.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 4 ∛    | BROMIDE   | 6.974                 | 0.002          | 0.007        | 18.16              | 17.95                | 0.0101         | n.a.           |
| n.a. 🗧 | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total  |           |                       | 0.006          | 0.018        | 59.62              | 46.61                |                |                |

|                      | Chromatogram and       | Results           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.98  |
| Vial Number:         | 9                      | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 16:30        | Sample Weight:    | 1.0    |



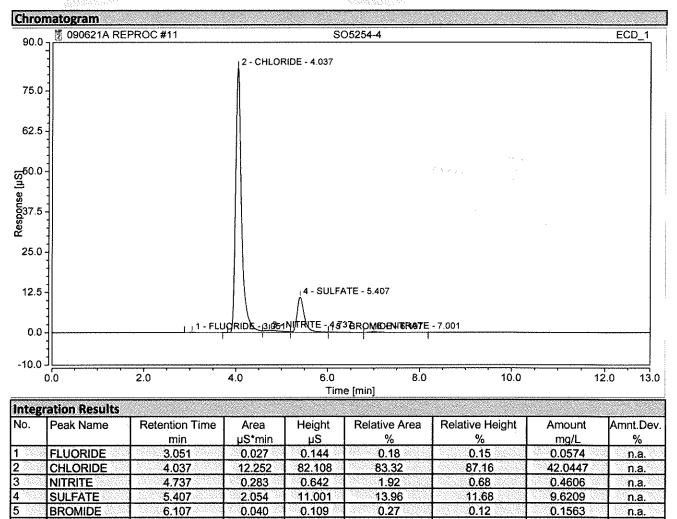
| Integ  | ration Results |                       |                |              |                    |                      |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| n.a. े | FLUORIDE       | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n,a.           | n.a.           |
| 2      | CHLORIDE       | 4.027                 | 0.003          | 0.015        | 20.47              | 32.04                | 0.0985         | n.a.           |
| 3      | NITRITE        | 4.877                 | 0.004          | 0.011        | 33.54              | 24.65                | 0.0067         | n.a.           |
| 4      | SULFATE        | 5.411                 | 0.001          | 0.006        | 12.21              | 13.89                | 0.0070         | n.a.           |
| 5      | BROMIDE        | 6.121                 | 0.001          | 0.003        | 6.31               | 6.22                 | 0.0041         | n.a.           |
| 6 338  | NITRATE        | 6.974                 | 0.002          | 0.007        | 14.69              | 15.44                | 0.0311         | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total  | •              |                       | 0.011          | 0.042        | 87.23              | 92.23                |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5254-4               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 10                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 16:49        | Sample Weight:    | 1.0    |  |  |  |  |



|        |           | min   | µS*min | μŠ    | %    | %    | mg/L   | %    |
|--------|-----------|-------|--------|-------|------|------|--------|------|
| 1.888  | FLUORIDE  | 3.051 | 0.027  | 0.144 | 0.18 | 0.15 | 0.0574 | n.a. |
| n.a.   | CHLORIDE  | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.   | NITRITE   | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.   | SULFATE   | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.   | BROMIDE   | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.   | NITRATE   | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.   | PHOSPHATE | n.a.  | n.a.   | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| Total: |           |       | 0.027  | 0.144 | 0.18 | 0.15 |        |      |

|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-4               | Run Time (min):   | 12.99  |
| Vial Number:         | 10                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 16:49        | Sample Weight:    | 1.0    |



Total:

NITRATE

PHOSPHATE

7.001

n.a.

0.049

n.a.

14.705

0.199

n.a.

94.202

0.34

n.a.

100.00

0.21

n.a.

100.00

0.0945

n.a.

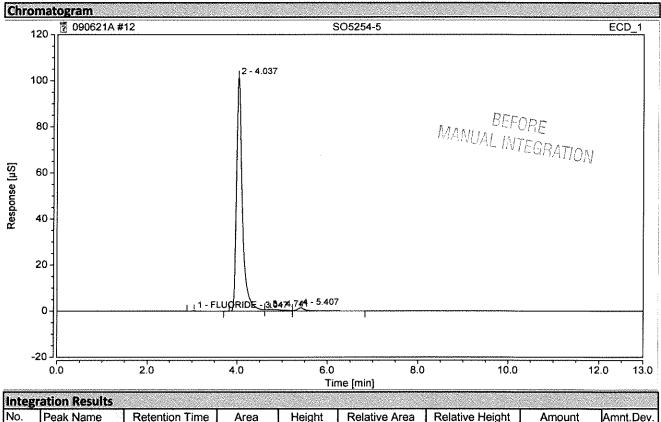
n.a.

n.a.

6

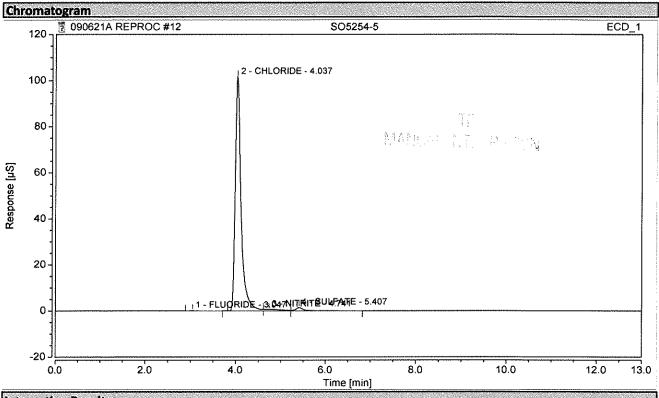
n.a.

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5254-5               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 11                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 17:08        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        | ·                 |        |  |  |  |  |



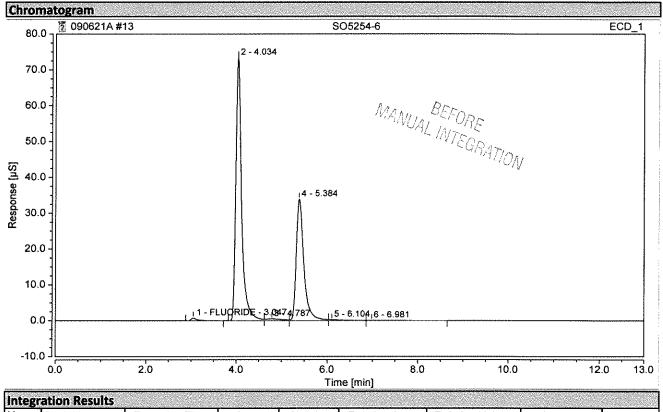
| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 333  | FLUORIDE  | 3.047                 | 0.026          | 0.141        | 0.17               | 0.14              | 0.0554         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. 🛇 | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  | •         |                       | 0.026          | 0.141        | 0.17               | 0.14              |                |                |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-5               | Run Time (min):   | 12.99  |
| Vial Number:         | 11                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 17:08        | Sample Weight:    | 1.0    |



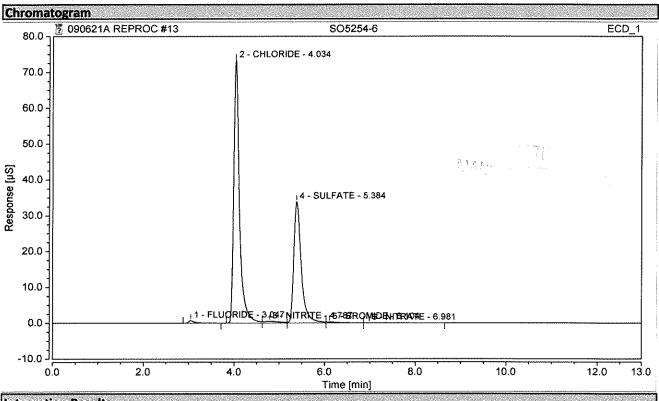
| No.   | Deel Name | Detention Time | Aree   | Linight | Balativa Area | Relative Height | Amount  | Americ David |
|-------|-----------|----------------|--------|---------|---------------|-----------------|---------|--------------|
| INO.  | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative neight | Amount  | Amnt.Dev.    |
|       |           | min            | µS*min | μS      | %             | %               | mg/L    | %            |
| 1 333 | FLUORIDE  | 3.047          | 0.026  | 0.141   | 0.17          | 0.14            | 0.0554  | n.a.         |
| 2     | CHLORIDE  | 4.037          | 15.196 | 101.616 | 96.16         | 97.89           | 52.1274 | n.a.         |
| 3     | NITRITE   | 4.741          | 0.287  | 0.673   | 1.82          | 0.65            | 0.4680  | n.a.         |
| 4     | SULFATE   | 5.407          | 0.293  | 1.380   | 1.85          | 1.33            | 1.3711  | n.a.         |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.         |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.         |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.    | n.a.         |
| Total | • • • •   |                | 15.802 | 103.810 | 100.00        | 100.00          |         |              |

| Chromatogram and Results |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                          |                                                                   |                                                                                                                                                                                            |  |  |  |  |  |
| SO5254-6                 | Run Time (min):                                                   | 12.98                                                                                                                                                                                      |  |  |  |  |  |
| 12                       | Injection Volume:                                                 | 200.00                                                                                                                                                                                     |  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD 1                                                                                                                                                                                      |  |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                                                                                       |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                                                                                       |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 1.0                                                                                                                                                                                        |  |  |  |  |  |
| 06/Sep/21 17:26          | Sample Weight:                                                    | 1.0                                                                                                                                                                                        |  |  |  |  |  |
|                          | SO5254-6<br>12<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | SO5254-6       Run Time (min):         12       Injection Volume:         Unknown       Channel:         ASDV30mMIsocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor: |  |  |  |  |  |



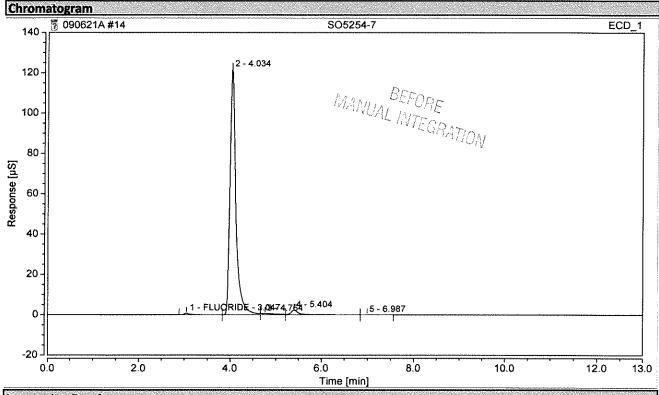
| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>uS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1.88   | FLUORIDE  | 3.047                 | 0.113          | 0.743        | 0.63               | 0.68              | 0.2395         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total: |           |                       | 0.113          | 0.743        | 0.63               | 0.68              |                |                |

|                      | Chromatogram and R     | lesults           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-6               | Run Time (min):   | 12.98  |
| Vial Number:         | 12                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 17:26        | Sample Weight:    | 1.0    |
|                      |                        | <b></b>           |        |



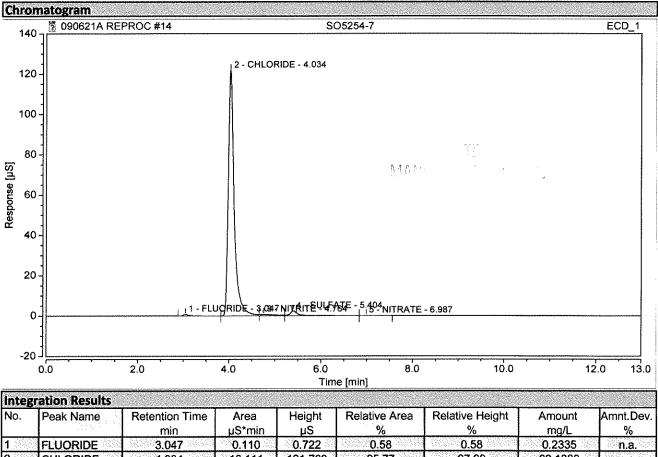
| Integ          | ration Results |                       |                | Second Second |                    |                      |                |                |
|----------------|----------------|-----------------------|----------------|---------------|--------------------|----------------------|----------------|----------------|
| No.            | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS  | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1 \$5252       | FLUORIDE       | 3.047                 | 0.113          | 0.743         | 0.63               | 0.68                 | 0.2395         | n.a.           |
| 2              | CHLORIDE       | 4.034                 | 10.896         | 73.396        | 61.02              | 67.46                | 37.4030        | n.a.           |
| 3 325          | NITRITE        | 4.787                 | 0.190          | 0.467         | 1.06               | 0.43                 | 0.3097         | n.a.           |
| 4              | SULFATE        | 5.384                 | 6.553          | 33.895        | 36.70              | 31.15                | 30.7026        | n.a.           |
| 5 3990         | BROMIDE        | 6.104                 | 0.088          | 0.269         | 0.49               | 0.25                 | 0.3860         | n.a.           |
| <b>6</b> 2,680 | NITRATE        | 6.981                 | 0.015          | 0.027         | 0.09               | 0.02                 | 0.0490         | n.a.           |
| n.a.           | PHOSPHATE      | n.a.                  | n.a.           | n.a.          | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total:         |                |                       | 17.856         | 108.796       | 100.00             | 100.00               |                |                |

|                      | Chromatogram and       | Results           |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-7               | Run Time (min):   | 12.99  |
| Vial Number:         | 13                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 17:45        | Sample Weight:    | 1.0    |



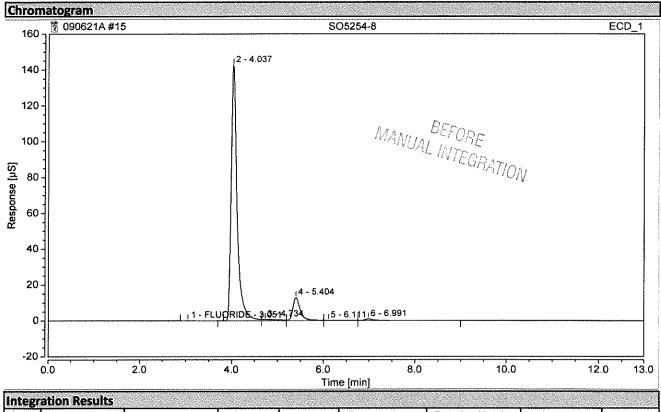
| No.           | Peak Name                                                                                                       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|---------------|-----------------------------------------------------------------------------------------------------------------|----------------|--------|--------|---------------|-----------------|--------|----------|
|               |                                                                                                                 | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1 768         | FLUORIDE                                                                                                        | 3.047          | 0.110  | 0.722  | 0.58          | 0.58            | 0.2335 | n.a.     |
| n.a. 🗧        | CHLORIDE                                                                                                        | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.          | NITRITE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.          | SULFATE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.          | BROMIDE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.          | NITRATE                                                                                                         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| <u>n.a. 😳</u> | PHOSPHATE                                                                                                       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total         | n de la consecta de l |                | 0.110  | 0.722  | 0.58          | 0.58            |        |          |

|                      | Chromatogram an        | d Results         |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-7               | Run Time (min):   | 12.99  |
| Vial Number:         | 13                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 17:45        | Sample Weight:    | 1.0    |



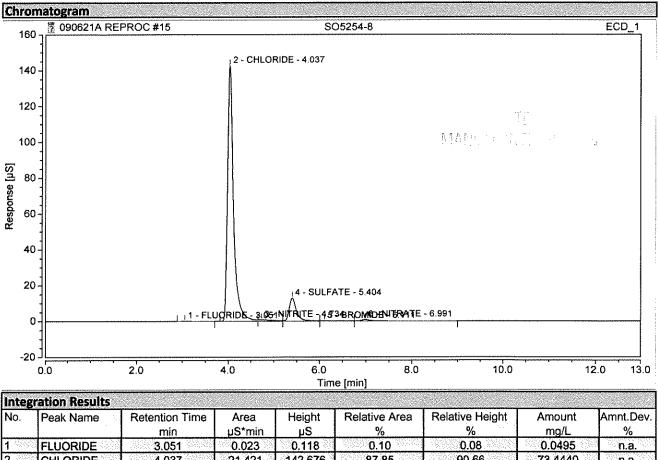
|        | 11174-5   | min   | µS*min | μS      | %      | %      | mg/L    | %         |
|--------|-----------|-------|--------|---------|--------|--------|---------|-----------|
| 1.888  | FLUORIDE  | 3.047 | 0.110  | 0.722   | 0.58   | 0.58   | 0.2335  | л.а.      |
| 2      | CHLORIDE  | 4.034 | 18.111 | 121.760 | 95.77  | 97.09  | 62.1088 | п.а.      |
| 3      | NITRITE   | 4.764 | 0.227  | 0.581   | 1.20   | 0.46   | 0.3692  | n.a.      |
| 4      | SULFATE   | 5.404 | 0.459  | 2.331   | 2.43   | 1.86   | 2.1519  | ି (n.a. 🌕 |
| n.a.   | BROMIDE   | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | п.а.      |
| 5      | NITRATE   | 6.987 | 0.004  | 0.011   | 0.02   | 0.01   | 0.0338  | n.a.      |
| n.a.   | PHOSPHATE | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.    | n.a.      |
| Total: |           |       | 18.911 | 125.406 | 100.00 | 100.00 |         |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5254-8               | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 14                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 18:04        | Sample Weight:    | 1.0    |  |  |  |  |



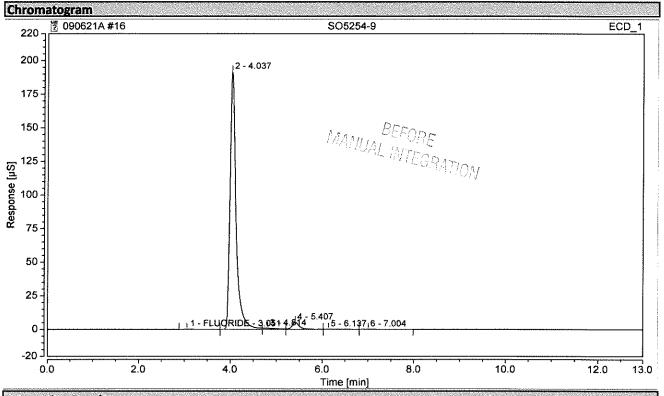
| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount    | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|-----------|-----------|
|       |           | min            | µS*min | μS     | %             | %               | mg/L      | %         |
| 1 🕸   | FLUORIDE  | 3.051          | 0.023  | 0.118  | 0.10          | 0.08            | 0.0495    | n.a.      |
| n.a.  | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.      | n.a.      |
| n.a.  | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.      | n.a.      |
| n.a.  | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.      | n.a.      |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a. (200 | n.a.      |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.      | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.      | n.a.      |
| Total |           |                | 0.023  | 0.118  | 0.10          | 0.08            |           |           |

|                                          | Chromatogram and R                       | lesults           |        |
|------------------------------------------|------------------------------------------|-------------------|--------|
| Injection Details                        |                                          |                   |        |
| Injection Name:                          | SO5254-8                                 | Run Time (min):   | 12.98  |
| Vial Number:                             | 14                                       | Injection Volume: | 200.00 |
| Injection Type:                          | Unknown                                  | Channel:          | ECD_1  |
| Calibration Level:                       |                                          | Wavelength:       | n.a.   |
| Instrument Method:                       | ASDV30mMIsocratic TEST                   | Bandwidth:        | n.a.   |
| Processing Method:                       | KAT01 2100                               | Dilution Factor:  | 1.0    |
| Injection Date/Time:                     | 06/Sep/21 18:04                          | Sample Weight:    | 1.0    |
| a an | T. A A A A A A A A A A A A A A A A A A A | 12                |        |



|        |           | min   | _µS*min | μS      | %      | %      | mg/L    | %    |
|--------|-----------|-------|---------|---------|--------|--------|---------|------|
| 1 200  | FLUORIDE  | 3.051 | 0.023   | 0.118   | 0.10   | 0.08   | 0.0495  | n.a. |
| 2      | CHLORIDE  | 4.037 | 21.421  | 142.676 | 87.85  | 90.66  | 73.4440 | n.a. |
| 3      | NITRITE   | 4.734 | 0.275   | 0.718   | 1.13   | 0.46   | 0.4487  | n.a. |
| 4      | SULFATE   | 5.404 | 2.426   | 12.879  | 9.95   | 8.18   | 11.3658 | n.a. |
| 5 000  | BROMIDE   | 6.111 | 0.050   | 0.136   | 0.21   | 0.09   | 0.1949  | n.a. |
| 6      | NITRATE   | 6.991 | 0.188   | 0.848   | 0.77   | 0.54   | 0.2781  | n.a. |
| n.a.   | PHOSPHATE | n.a.  | n.a.    | n.a.    | n.a.   | n.a.   | n.a.    | n.a. |
| Total: |           |       | 24.384  | 157.374 | 100.00 | 100.00 |         |      |

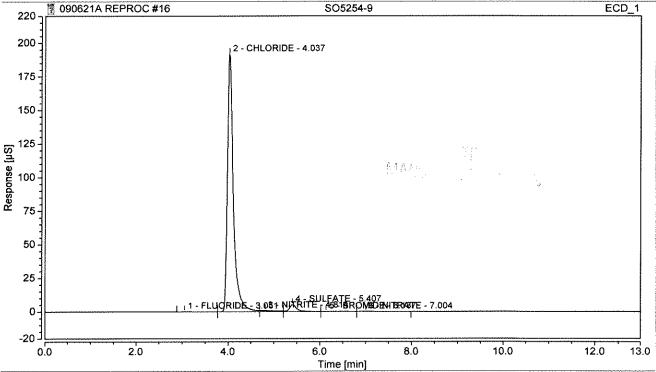
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5254-9               | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 15                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 18:23        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



| No.    | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 8883 | FLUORIDE  | 3.051                 | 0.024          | 0.114        | 0.08               | 0.06              | 0.0498         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  |           | e li bebelahendake    | 0.024          | 0.114        | 0.08               | 0.06              |                |                |

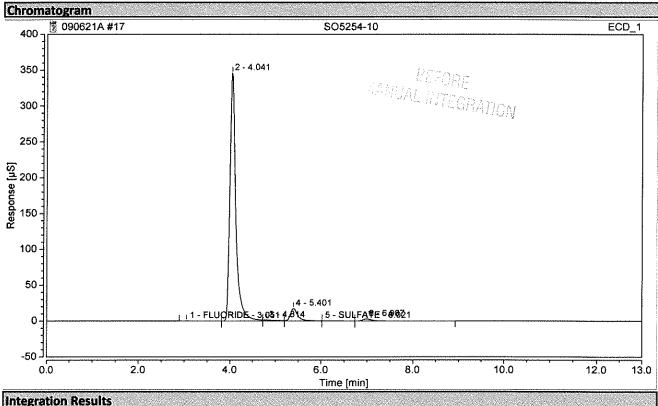
|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-9               | Run Time (min):   | 12.98  |
| Vial Number:         | 15                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 18:23        | Sample Weight:    | 1.0    |





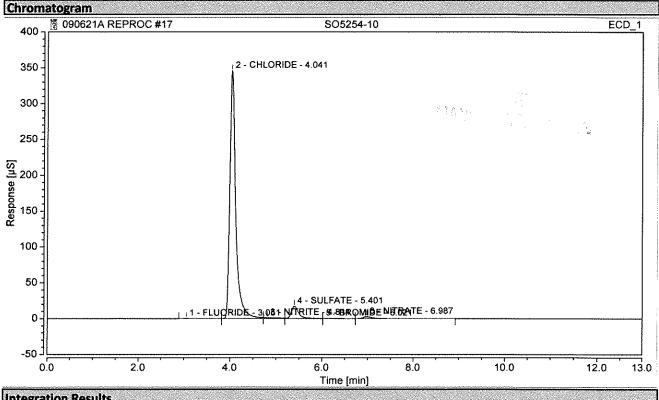
| Integ | ration Results |                       |                |              |                    |                      |                |                |
|-------|----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.   | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1     | FLUORIDE       | 3.051                 | 0.024          | 0.114        | 0.08               | 0.06                 | 0.0498         | n.a.           |
| 2     | CHLORIDE       | 4.037                 | 28.945         | 191.654      | 95.59              | 96.89                | 99.2085        | n.a.           |
| 3     | NITRITE        | 4.814                 | 0.289          | 0.768        | 0.96               | 0.39                 | 0.4714         | n.a.           |
| 4.888 | SULFATE        | 5.407                 | 0.973          | 5.145        | 3.21               | 2.60                 | 4.5597         | n.a.           |
| 5 %   | BROMIDE        | 6.137                 | 0.029          | 0.064        | 0.10               | 0.03                 | 0.0919         | n.a.           |
| 6     | NITRATE        | 7.004                 | 0.019          | 0.063        | 0.06               | 0.03                 | 0.0540         | n.a.           |
| n.a.  | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total | •              |                       | 30.279         | 197.808      | 100.00             | 100.00               |                |                |

| Chromatogram and Results |                                                                    |                                                                                                                                                                                             |  |  |  |  |
|--------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|                          | en en stan en                  |                                                                                                                                                                                             |  |  |  |  |
| SO5254-10                | Run Time (min):                                                    | 12.99                                                                                                                                                                                       |  |  |  |  |
| 16                       | Injection Volume:                                                  | 200.00                                                                                                                                                                                      |  |  |  |  |
| Unknown                  | Channel:                                                           | ECD_1                                                                                                                                                                                       |  |  |  |  |
|                          | Wavelength:                                                        | n.a.                                                                                                                                                                                        |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                         | n.a.                                                                                                                                                                                        |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                   | 1.0                                                                                                                                                                                         |  |  |  |  |
| 06/Sep/21 18:42          | Sample Weight:                                                     | 1.0                                                                                                                                                                                         |  |  |  |  |
|                          | SO5254-10<br>16<br>Unknown<br>ASDV30mMlsocratic TEST<br>KAT01 2100 | SO5254-10       Run Time (min):         16       Injection Volume:         Unknown       Channel:         ASDV30mMIsocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor: |  |  |  |  |



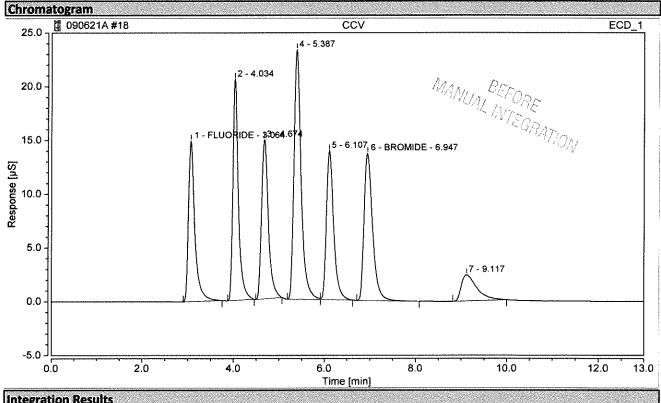
| No.   | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>uS | Relative Area | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev<br>% |
|-------|-----------|-----------------------|----------------|--------------|---------------|----------------------|----------------|---------------|
| 1 383 | FLUORIDE  | 3.051                 | 0.024          | 0.119        | 0.04          | 0.03                 | 0.0517         | n.a.          |
| n.a.  | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.                 | n.a.           | n.a.          |
| п.а.  | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.                 | n.a.           | n.a.          |
| 5     | SULFATE   | 6.021                 | 0.068          | 0.178        | 0.12          | 0.05                 | 0.3182         | n.a.          |
| n.a.  | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.                 | n.a.           | n.a.          |
| n.a.  | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.                 | n.a.           | n.a.          |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.          | n.a.                 | n.a.           | n.a.          |
| Total | •         |                       | 0.092          | 0.297        | 0.16          | 0.08                 |                |               |

|                      | Chromatogram and Re    | sults             |          |
|----------------------|------------------------|-------------------|----------|
| Injection Details    |                        |                   |          |
| Injection Name:      | SO5254-10              | Run Time (min):   | 12.99    |
| Vial Number:         | 16                     | Injection Volume: | 200.00   |
| Injection Type:      | Unknown                | Channel:          | ECD_1    |
| Calibration Level:   |                        | Wavelength:       | <br>n.a. |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.     |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0      |
| Injection Date/Time: | 06/Sep/21 18:42        | Sample Weight:    | 1.0      |



| No.   | Peak Name        | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount      | Amnt.Dev |
|-------|------------------|----------------|--------|---------|---------------|-----------------|-------------|----------|
|       | 1 currane        | min            | µS*min | μS      | %             | %               | mg/L        | %        |
| 1 333 | FLUORIDE         | 3.051          | 0.024  | 0.119   | 0.04          | 0.03            | 0.0517      | n.a.     |
| 2 200 | CHLORIDE         | 4.041          | 52.193 | 345.946 | 92.33         | 94.17           | 178.8163    | n.a.     |
| 3 🖄   | NITRITE          | 4.814          | 0.393  | 1.164   | 0.70          | 0.32            | 0.6403      | n.a.     |
| 4     | SULFATE          | 5.401          | 3.264  | 17.180  | 5.77          | 4.68            | 15.2919     | n.a.     |
| 5     | BROMIDE          | 6.021          | 0.068  | 0.178   | 0.12          | 0.05            | 0.2562      | n.a.     |
| 6     | NITRATE          | 6.987          | 0.589  | 2.776   | 1.04          | 0.76            | 0.8114      | n.a.     |
| n.a.  | PHOSPHATE        | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | <u>n.a.</u> | n.a.     |
| Total | terre service en |                | 56.531 | 367.362 | 100.00        | 100.00          |             |          |

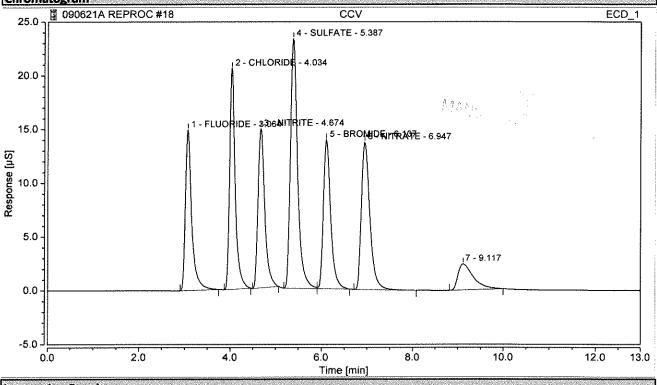
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 17                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 19:00        | Sample Weight:    | 1.0    |  |  |  |
| 10000000                 |                        |                   |        |  |  |  |



| No.        | Peak Name | Retention Time                                                                                                  | Area                                  | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|------------|-----------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|--------|---------------|-----------------|---------|----------|
| 110.       | Peak Name | Retention time                                                                                                  | · · · · · · · · · · · · · · · · · · · | neight |               | Relative Reight | Amount  |          |
|            |           | min                                                                                                             | µS*min                                | μS     | %             | %               | mg/L    | %        |
| 1 3333     | FLUORIDE  | 3.064                                                                                                           | 2.418                                 | 14.941 | 12.93         | 14.43           | 5.1242  | 2.4849   |
| n.a.       | CHLORIDE  | n.a.                                                                                                            | n.a.                                  | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| n.a.       | NITRITE   | n.a.                                                                                                            | n.a.                                  | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| n.a.       | SULFATE   | n.a.                                                                                                            | n.a.                                  | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| <b>6</b> 🕬 | BROMIDE   | 6.947                                                                                                           | 2.992                                 | 13.699 | 15.99         | 13.23           | 19.6938 | -1.5311  |
| n.a.       | NITRATE   | n.a.                                                                                                            | n.a.                                  | n.a.   | п.а.          | n.a.            | n.a.    | n.a.     |
| n.a.       | PHOSPHATE | n.a.                                                                                                            | n.a.                                  | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total      |           | e in the base of the second | 5.410                                 | 28.640 | 28.92         | 27.67           |         |          |

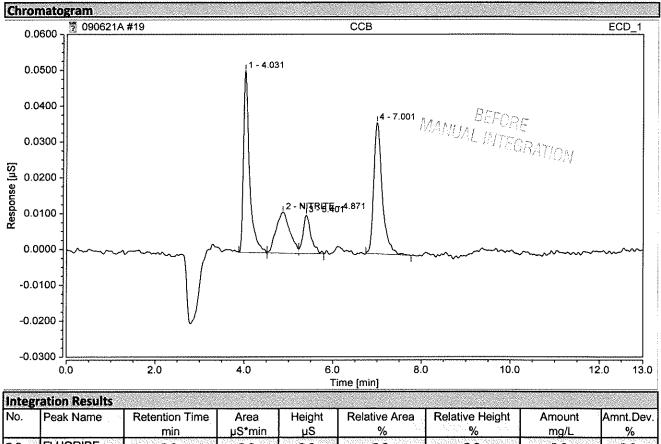
|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | CCV                    | Run Time (min):   | 12.99  |
| Vial Number:         | 17                     | Injection Volume: | 200.00 |
| Injection Type:      | Check Standard         | Channel:          | ECD_1  |
| Calibration Level:   | 06                     | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 19:00        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |





| Integ  |           |                | A      | 11.2.1.4 | D-1-1         | Detection (Internet) | A       |           |
|--------|-----------|----------------|--------|----------|---------------|----------------------|---------|-----------|
| No.    | Peak Name | Retention Time | Area   | Height   | Relative Area | Relative Height      | Amount  | Amnt,Dev. |
|        |           | min            | µS*min | μS       | %             | %                    | mg/L    | %         |
| 1 333  | FLUORIDE  | 3.064          | 2.418  | 14.941   | 12.93         | 14.43                | 5.1242  | 2.4849    |
| 2      | CHLORIDE  | 4.034          | 2.928  | 20.553   | 15.65         | 19.85                | 10.1151 | 1.1510    |
| 3      | NITRITE   | 4.674          | 2.551  | 14.817   | 13.63         | 14.31                | 4.1551  | 3.8776    |
| 4 888  | SULFATE   | 5.387          | 4.284  | 23.219   | 22.90         | 22.43                | 20.0702 | 0.3509    |
| 5 🕬    | BROMIDE   | 6.107          | 2.585  | 13.864   | 13.82         | 13.39                | 19.9305 | -0.3476   |
| 6      | NITRATE   | 6.947          | 2.992  | 13.699   | 15.99         | 13.23                | 4.0054  | 0.1341    |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.     | n.a.          | n.a.                 | n.a.    | n.a.      |
| Total: |           |                | 17.757 | 101.093  | 94.92         | 97.66                |         |           |

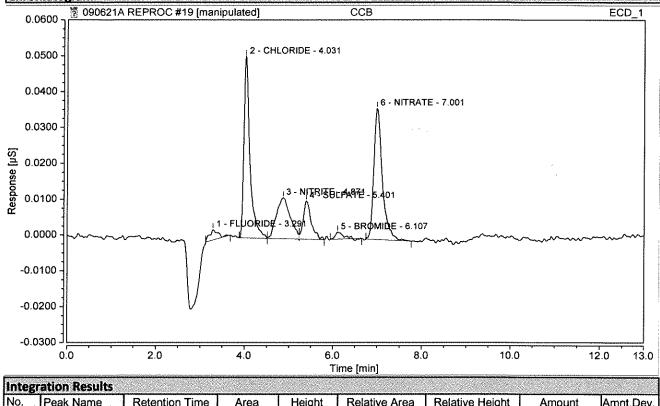
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | ССВ                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 18                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 19:19        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



| No.   | Peak Name                                                                                                       | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------------------------------------------------------------------------------------------------------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| n.a.  | FLUORIDE                                                                                                        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | CHLORIDE                                                                                                        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 2     | NITRITE                                                                                                         | 4.871                 | 0.004          | 0.011        | 18.31              | 10.45                | 0.0067         | n.a.           |
| n.a.  | SULFATE                                                                                                         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | BROMIDE                                                                                                         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRATE                                                                                                         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | PHOSPHATE                                                                                                       | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total | l di serie de la composición de la comp |                       | 0.004          | 0.011        | 18.31              | 10.45                |                |                |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.98  |
| Vial Number:         | 18                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 19:19        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |

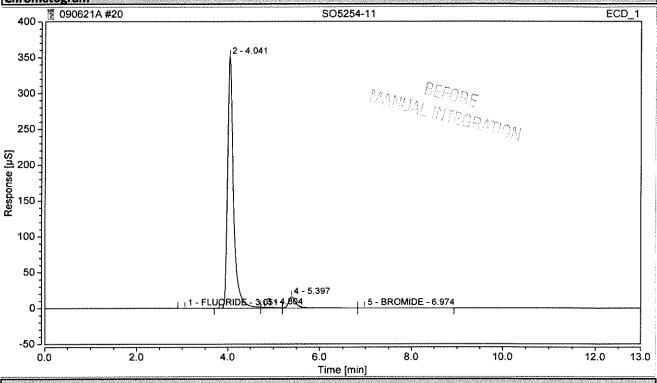




| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 138   | FLUORIDE  | 3.291                 | 0.001          | 0.003        | 2.67               | 2.56              | 0.0013         | n.a.           |
| 2     | CHLORIDE  | 4.031                 | 0.008          | 0.051        | 34.00              | 44.31             | 0.1175         | n.a.           |
| 3     | NITRITE   | 4.871                 | 0.004          | 0.011        | 17.51              | 10.01             | 0.0067         | n.a.           |
| 4     | SULFATE   | 5.401                 | 0.002          | 0.011        | 9.56               | 9.37              | 0.0106         | n.a.           |
| 5 888 | BROMIDE   | 6.107                 | 0.000          | 0.002        | 1.68               | 1.73              | 0.0028         | n.a.           |
| 6     | NITRATE   | 7.001                 | 0.008          | 0.037        | 34.58              | 32.03             | 0.0396         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Tota  | l:        |                       | 0.024          | 0.114        | 100.00             | 100.00            |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5254-11              | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 19                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 19:38        | Sample Weight:    | 1.0    |  |  |  |

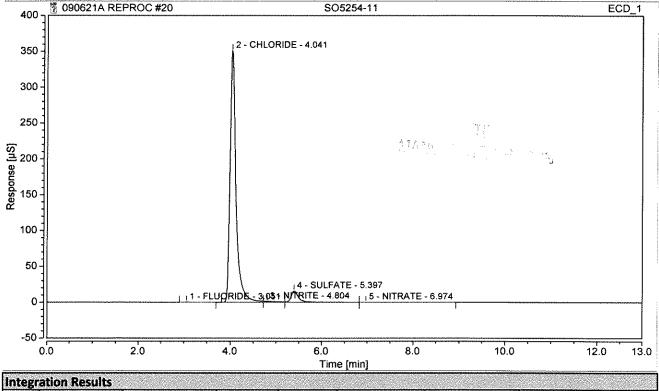
# Chromatogram



| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount      | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|-------------|-----------|
|       |           | min            | µS*min | μS     | %             | %               | mg/L        | %         |
| 1.88  | FLUORIDE  | 3.051          | 0.022  | 0.114  | 0.04          | 0.03            | 0.0470      | n.a.      |
| n.a.  | CHLORIDE  | n.a.           | n.a.   | n.a.   | <u>n.a.</u>   | n.a.            | <u>n.a.</u> | n.a.      |
| n.a.  | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| 5     | BROMIDE   | 6.974          | 0.029  | 0.041  | 0.05          | 0.01            | 0.0587      | n.a.      |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | <u>n.a.</u> | n.a.      |
| Total |           |                | 0.051  | 0.155  | 0.09          | 0.04            |             |           |

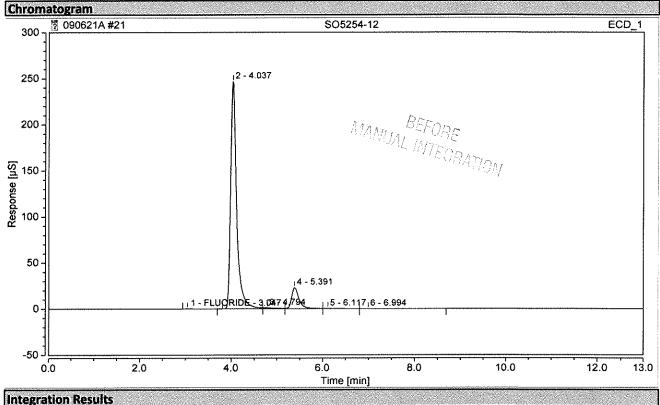
| Chromatogram and Results |                        |                                        |        |  |  |  |
|--------------------------|------------------------|----------------------------------------|--------|--|--|--|
| Injection Details        |                        |                                        |        |  |  |  |
| Injection Name:          | SO5254-11              | Run Time (min):                        | 12.99  |  |  |  |
| Vial Number:             | 19                     | Injection Volume:                      | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:                               | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:                            | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:                             | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:                       | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 19:38        | Sample Weight:                         | 1.0    |  |  |  |
|                          |                        | ······································ |        |  |  |  |





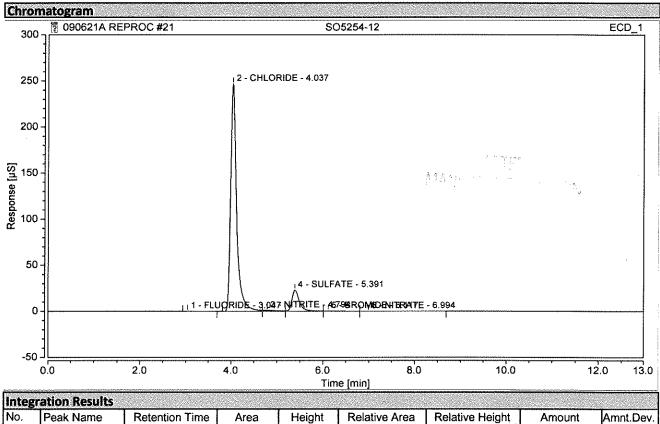
| No.          | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev. |
|--------------|-----------|----------------|--------|---------|---------------|-----------------|----------|-----------|
|              |           | min            | µS*min | μS      | %             | %               | mg/L     | %         |
| 1 33         | FLUORIDE  | 3.051          | 0.022  | 0.114   | 0.04          | 0.03            | 0.0470   | n.a.      |
| 2            | CHLORIDE  | 4.041          | 52.821 | 351.226 | 93.80         | 95.36           | 180.9657 | n.a.      |
| 3            | NITRITE   | 4.804          | 0.406  | 1.199   | 0.72          | 0.33            | 0.6608   | n.a.      |
| 4 868        | SULFATE   | 5.397          | 3.032  | 15.729  | 5.38          | 4.27            | 14.2043  | n.a.      |
| n.a.         | BROMIDE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| <b>5</b> 338 | NITRATE   | 6.974          | 0.029  | 0.041   | 0.05          | 0.01            | 0.0672   | n.a.      |
| n.a.         | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| Total        | •         |                | 56.309 | 368.310 | 100.00        | 100.00          |          |           |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-12              | Run Time (min):   | 12.99  |
| Vial Number:         | 20                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 19:57        | Sample Weight:    | 1.0    |
|                      |                        | ч                 |        |



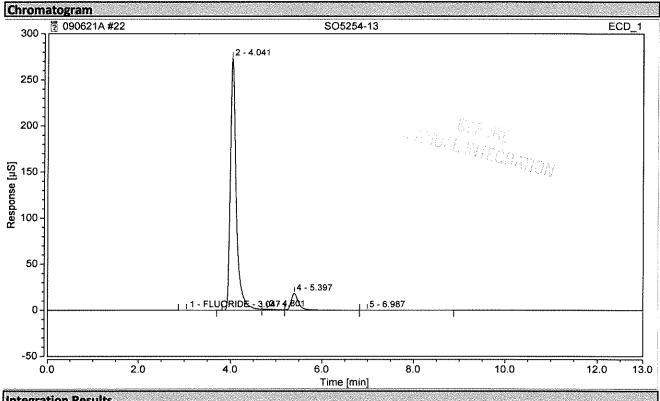
| No.   | Peak Name     | Retention Time | Area   | Height | Relative Area | Relative Height | Amount      | Amnt.Dev. |
|-------|---------------|----------------|--------|--------|---------------|-----------------|-------------|-----------|
|       | a statistica. | l min          | µS*min | μS     | %             | %               | mg/L        | %         |
| 1.38  | FLUORIDE      | 3.047          | 0.036  | 0.229  | 0.09          | 0.08            | 0.0762      | n.a.      |
| n.a.  | CHLORIDE      | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | NITRITE       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | SULFATE       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | BROMIDE       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | <u>n.a.</u> | n.a.      |
| n.a.  | NITRATE       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | PHOSPHATE     | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| Total | *             |                | 0.036  | 0.229  | 0.09          | 0.08            |             |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5254-12              | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 20                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 19:57        | Sample Weight:    | 1.0    |  |  |  |  |



| No.           | Peak Name | Retention Time<br>min | Area<br>uS*min | Height<br>uS | Relative Area<br>% | Relative Height<br>% | Amount<br>ma/L | Amnt.Dev.<br>% |
|---------------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1 3333        | FLUORIDE  | 3.047                 | 0.036          | 0.229        | 0.09               | 0.08                 | 0.0762         | n.a.           |
| 2 333         | CHLORIDE  | 4.037                 | 37.159         | 246.796      | 88.55              | 90.99                | 127.3347       | n.a.           |
| 3             | NITRITE   | 4.794                 | 0.328          | 0.923        | 0.78               | 0.34                 | 0.5349         | n.a.           |
| 4             | SULFATE   | 5.391                 | 4.336          | 23.012       | 10.33              | 8.48                 | 20.3158        | n.a.           |
| <b>5</b> - 16 | BROMIDE   | 6.117                 | 0.080          | 0.219        | 0.19               | 0.08                 | 0.3148         | n.a.           |
| <b>6</b> 💖    | NITRATE   | 6.994                 | 0.026          | 0.053        | 0.06               | 0.02                 | 0.0639         | n.a.           |
| n.a.          | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total:        |           |                       | 41.966         | 271.232      | 100.00             | 100.00               |                |                |

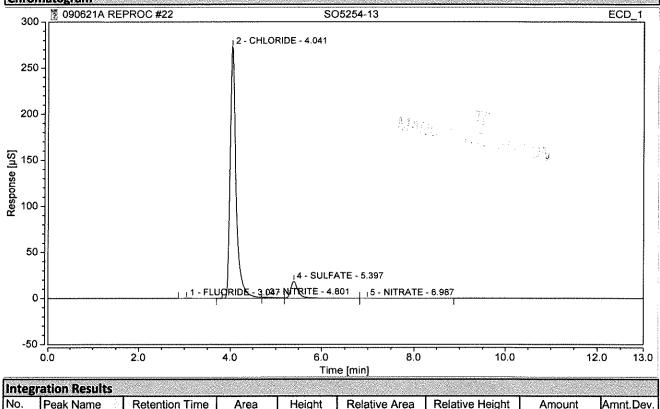
|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-13              | Run Time (min):   | 12.99  |
| Vial Number:         | 21                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 20:16        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |



| No.   | Beek Neme | Retention Time | Aree   | Hotobt | Relative Area | Bolotivo Hojoht | Amount | Ament Day |
|-------|-----------|----------------|--------|--------|---------------|-----------------|--------|-----------|
| NO.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|       |           | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1 22  | FLUORIDE  | 3.047          | 0.038  | 0.223  | 0.09          | 0.08            | 0.0813 | n.a.      |
| n.a.  | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | ି n.a.    |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total |           |                | 0.038  | 0.223  | 0.09          | 0.08            |        |           |

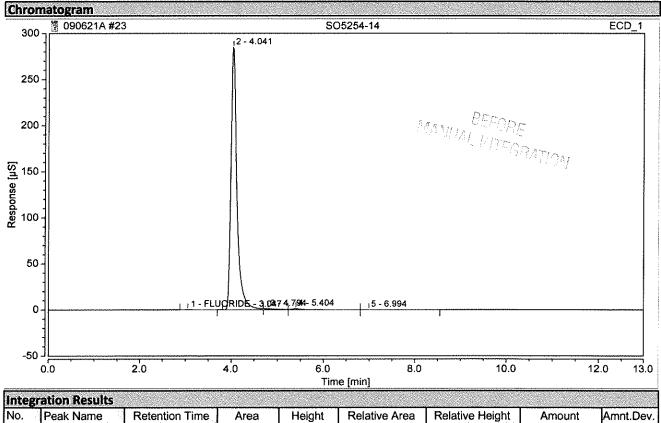
|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-13              | Run Time (min):   | 12.99  |
| Vial Number:         | 21                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 20:16        | Sample Weight:    | 1.0    |
| ANNO STATE           |                        | ·                 |        |

## Chromatogram



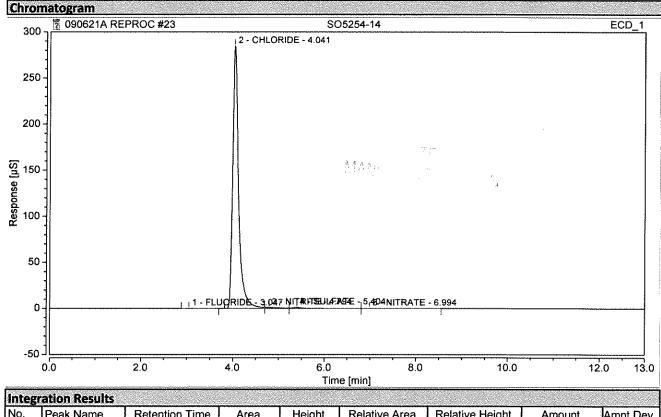
| No.   | Peak Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount      | Amnt.Dev. |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|---------|---------------|-----------------|-------------|-----------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | min            | µS*min | μS      | %             | %               | mg/L        | %         |
| 138   | FLUORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.047          | 0.038  | 0.223   | 0.09          | 0.08            | 0.0813      | n.a.      |
| 2     | CHLORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.041          | 41.049 | 273.221 | 91.36         | 93.36           | 140.6536    | n.a.      |
| 3     | NITRITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4.801          | 0.356  | 0.981   | 0.79          | 0.34            | 0.5806      | n.a.      |
| 4     | SULFATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.397          | 3.465  | 18.176  | 7.71          | 6.21            | 16.2326     | n.a.      |
| n.a.  | BROMIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| 5     | NITRATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.987          | 0.025  | 0.041   | 0.06          | 0.01            | 0.0619      | n.a.      |
| n.a.  | PHOSPHATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | <u>n.a.</u> | n.a.      |
| Total | internet in the second se |                | 44.933 | 292.642 | 100.00        | 100.00          |             | 1         |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5254-14              | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 22                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 20:35        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        |                   |        |  |  |  |  |



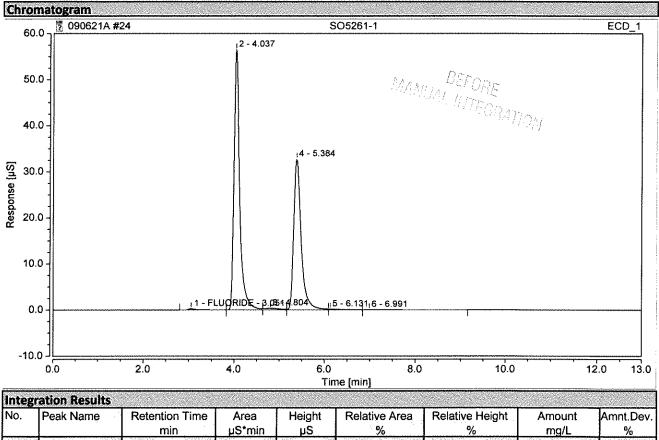
| No.   | Peak Name | Retention Time | Area<br>uS*min | Height<br>⊔S | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|----------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1 888 | FLUORIDE  | 3.047          | 0.037          | 0.222        | 0.08               | 0.08                 | 0.0785         | n.a.           |
| n.a.  | CHLORIDE  | n.a.           | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRITE   | n.a.           | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | SULFATE   | n.a.           | n.a.           | n.a.         | n.a.               | п.а.                 | n.a.           | n.a.           |
| n.a.  | BROMIDE   | n.a.           | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRATE   | n.a.           | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | PHOSPHATE | n.a.           | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total | •         |                | 0.037          | 0.222        | 0.08               | 0.08                 |                |                |

|                      | Chromatogram and R     | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5254-14              | Run Time (min):   | 12.98  |
| Vial Number:         | 22                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a    |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 20:35        | Sample Weight:    | 1.0    |



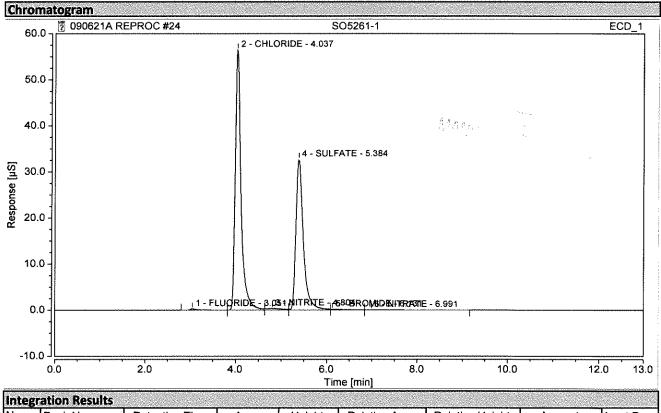
| No.          | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev. |
|--------------|-----------|----------------|--------|---------|---------------|-----------------|----------|-----------|
|              |           | min            | µS*min | μS      | %             | %               | mg/L     | %         |
| 1 000        | FLUORIDE  | 3.047          | 0.037  | 0.222   | 0.08          | 0.08            | 0.0785   | п.а.      |
| 2 200        | CHLORIDE  | 4.041          | 43.053 | 285.006 | 98.34         | 99.15           | 147.5174 | n.a.      |
| 3 800        | NITRITE   | 4.794          | 0.373  | 1.018   | 0.85          | 0.35            | 0.6084   | n.a.      |
| <b>4</b> 838 | SULFATE   | 5.404          | 0.302  | 1.193   | 0.69          | 0.42            | 1.4146   | n.a.      |
| n.a.         | BROMIDE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n,a.      |
| 5            | NITRATE   | 6.994          | 0.015  | 0.023   | 0.03          | 0.01            | 0.0481   | n.a.      |
| n.a.         | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| Total        |           |                | 43.780 | 287.462 | 100.00        | 100.00          |          |           |

|                      | Chromatogram and R     | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5261-1               | Run Time (min):   | 12.98  |
| Vial Number:         | 23                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 20:53        | Sample Weight:    | 1.0    |
|                      |                        | No.               |        |



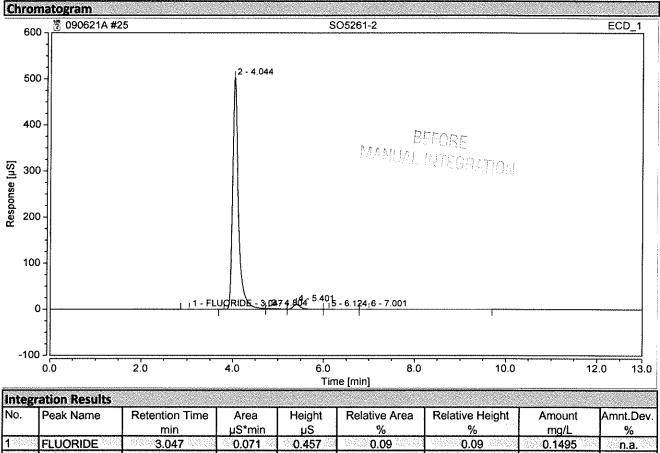
| Peak Name | Retention Time                                                                | Area                                                                                                                                                                      | Height                                                                                                                   | Relative Area                                                                                                                                                                                                                                                                                                                                                                                                                                       | Relative Height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Amount                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Amnt.Dev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | min                                                                           | uS*min                                                                                                                                                                    | μS                                                                                                                       | %                                                                                                                                                                                                                                                                                                                                                                                                                                                   | %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | mg/L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| FLUORIDE  | 3.051                                                                         | 0.062                                                                                                                                                                     | 0.286                                                                                                                    | 0.41                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.1310                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CHLORIDE  | n.a.                                                                          | n.a.                                                                                                                                                                      | , n.a.                                                                                                                   | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ก.ล.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NITRITE   | n.a.                                                                          | n.a.                                                                                                                                                                      | n.a.                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | п.а.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SULFATE   | n.a.                                                                          | n.a.                                                                                                                                                                      | n.a.                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| BROMIDE   | n.a.                                                                          | n.a.                                                                                                                                                                      | n.a.                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NITRATE   | n.a.                                                                          | n.a.                                                                                                                                                                      | n.a.                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| PHOSPHATE | n.a.                                                                          | n.a.                                                                                                                                                                      | n.a.                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|           |                                                                               | 0.062                                                                                                                                                                     | 0.286                                                                                                                    | 0.41                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|           | FLUORIDE<br>CHLORIDE<br>NITRITE<br>SULFATE<br>BROMIDE<br>NITRATE<br>PHOSPHATE | min       FLUORIDE     3.051       CHLORIDE     n.a.       NITRITE     n.a.       SULFATE     n.a.       BROMIDE     n.a.       NITRATE     n.a.       PHOSPHATE     n.a. | minµS*minFLUORIDE3.0510.062CHLORIDEn.a.n.a.NITRITEn.a.n.a.SULFATEn.a.n.a.BROMIDEn.a.n.a.NITRATEn.a.n.a.PHOSPHATEn.a.n.a. | min         µS*min         µS           FLUORIDE         3.051         0.062         0.286           CHLORIDE         n.a.         n.a.         n.a.           NITRITE         n.a.         n.a.         n.a.           SULFATE         n.a.         n.a.         n.a.           BROMIDE         n.a.         n.a.         n.a.           NITRATE         n.a.         n.a.         n.a.           PHOSPHATE         n.a.         n.a.         n.a. | min         µS*min         µS         %           FLUORIDE         3.051         0.062         0.286         0.41           CHLORIDE         n.a.         n.a.         n.a.         n.a.           NITRITE         n.a.         n.a.         n.a.         n.a.           SULFATE         n.a.         n.a.         n.a.         n.a.           BROMIDE         n.a.         n.a.         n.a.         n.a.           NITRATE         n.a.         n.a.         n.a.         n.a.           PHOSPHATE         n.a.         n.a.         n.a.         n.a. | min         µS*min         µS         %         %           FLUORIDE         3.051         0.062         0.286         0.41         0.32           CHLORIDE         n.a.         n.a.         n.a.         n.a.         n.a.           NITRITE         n.a.         n.a.         n.a.         n.a.         n.a.           SULFATE         n.a.         n.a.         n.a.         n.a.         n.a.           BROMIDE         n.a.         n.a.         n.a.         n.a.         n.a.           NITRATE         n.a.         n.a.         n.a.         n.a.         n.a.           PHOSPHATE         n.a.         n.a.         n.a.         n.a.         n.a. | min         µS*min         µŠ         %         mg/L           FLUORIDE         3.051         0.062         0.286         0.41         0.32         0.1310           CHLORIDE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a.           NITRITE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a.           SULFATE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a.           BROMIDE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a.           NITRATE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a.           PHOSPHATE         n.a.         n.a.         n.a.         n.a.         n.a.         n.a. |

|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5261-1               | Run Time (min):   | 12.98  |
| Vial Number:         | 23                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD 1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 20:53        | Sample Weight:    | 1.0    |



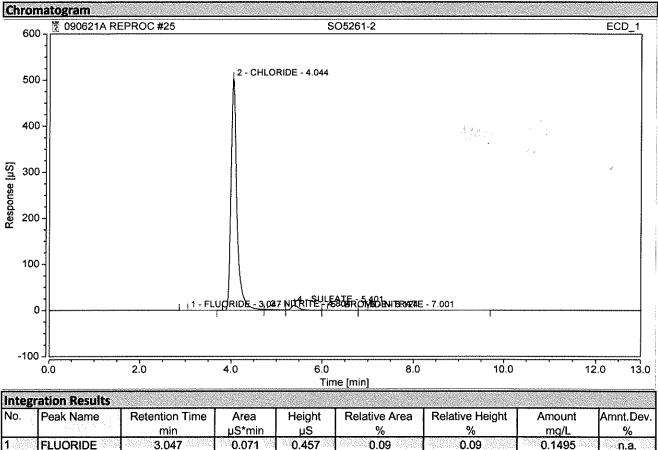
| 4             | NITRITE<br>SULFATE | 4.804<br>5.384  | 0.142<br>6.270 | 0.354          | 0.95           | 0.39<br>36.34  | 0.2310                   | <u>n.a.</u><br>n.a. |
|---------------|--------------------|-----------------|----------------|----------------|----------------|----------------|--------------------------|---------------------|
| 4 ·····       | BROMIDE            | 6.131           | 0.060          | 0.166          | 0.40           | 0.18           | <u>29.3742</u><br>0.2386 | n.a.<br>n.a.        |
| 6             | NITRATE            | 6.991           | 0.029          | 0.042          | 0.20           | 0.05           | 0.0679                   | n.a.                |
| n.a.          | PHOSPHATE          | n.a.            | n.a.           | n.a.           | n.a.           | n.a.           | n.a.                     | n.a.                |
| n.a.<br>Total |                    | <u>  n.a.  </u> | n.a.<br>14.914 | n.a.<br>90.108 | n.a.<br>100.00 | n.a.<br>100.00 | n.a.                     | n.a.                |

| Chromatogram and Results |                        |                                         |        |  |  |  |
|--------------------------|------------------------|-----------------------------------------|--------|--|--|--|
| Injection Details        |                        |                                         |        |  |  |  |
| Injection Name:          | SO5261-2               | Run Time (min):                         | 12.99  |  |  |  |
| Vial Number:             | 24                     | Injection Volume:                       | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:                                | ECD 1  |  |  |  |
| Calibration Level:       |                        | Wavelength:                             | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:                              | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:                        | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 21:12        | Sample Weight:                          | 1.0    |  |  |  |
|                          |                        | 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |        |  |  |  |



| Total:       |           |             | 0.071 | 0.457 | 0.09 | 0.09 |        |      |
|--------------|-----------|-------------|-------|-------|------|------|--------|------|
| n.a.         | PHOSPHATE | n.a.        | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.         | NITRATE   | n.a.        | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.         | BROMIDE   | n.a.        | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.         | SULFATE   | n.a.        | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.         | NITRITE   | <u>n.a.</u> | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| n.a.         | CHLORIDE  | n.a.        | n.a.  | n.a.  | n.a. | n.a. | n.a.   | n.a. |
| 1 - 21-21-21 | FLUORIDE  | 3.047       | 0.071 | 0.457 | 0.09 | 0.09 | 0.1495 | n.a. |

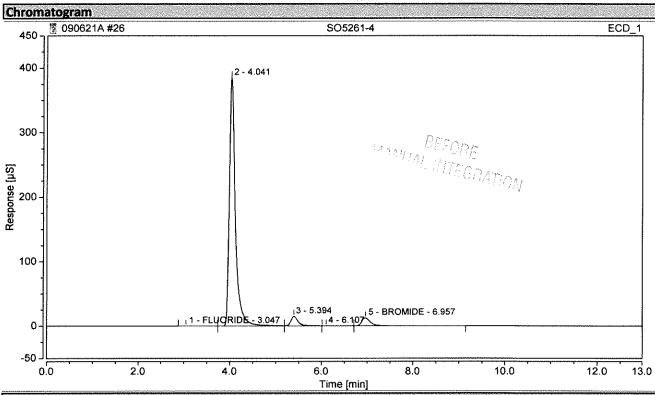
| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5261-2               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 24                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 21:12        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        | <del>_</del>      |        |  |  |  |  |



| Total: | 1.114     |       | 78.855 | 516.898 | 100.00 | 100.00 |          |        |
|--------|-----------|-------|--------|---------|--------|--------|----------|--------|
| n.a.   | PHOSPHATE | n.a.  | n.a.   | n.a.    | n.a.   | n.a.   | n.a.     | n.a.   |
| 6      | NITRATE   | 7.001 | 0.066  | 0.171   | 0.08   | 0.03   | 0.1171   | n.a.   |
| 5 888  | BROMIDE   | 6.124 | 0.078  | 0.188   | 0.10   | 0.04   | 0.2702   | n.a.   |
| 4      | SULFATE   | 5.401 | 2.140  | 11.207  | 2.71   | 2.17   | 10.0273  | n.a.   |
| 3      | NITRITE   | 4.804 | 0.522  | 1.586   | 0.66   | 0.31   | 0.8506   | ิ ก.ล. |
| 2      | CHLORIDE  | 4.044 | 75.978 | 503.288 | 96.35  | 97.37  | 260.2635 | n.a.   |
| 1      | FLUORIDE  | 3.047 | 0.071  | 0.457   | 0.09   | 0.09   | 0.1495   | n.a.   |
|        |           |       |        |         |        |        |          |        |

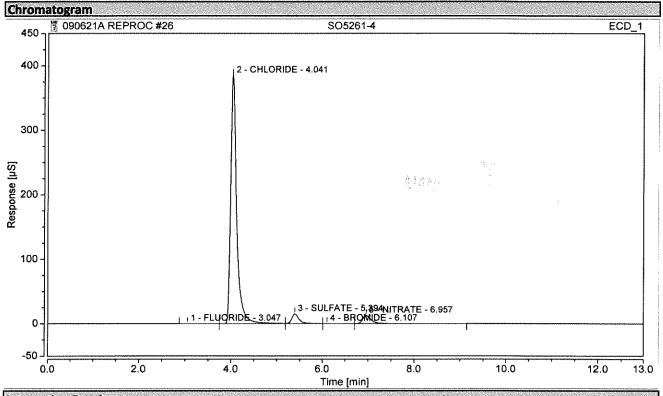
Default(1)/integration

|                      | Chromatogram and Res   | sults             |                                        |
|----------------------|------------------------|-------------------|----------------------------------------|
| Injection Details    |                        |                   |                                        |
| Injection Name:      | SO5261-4               | Run Time (min):   | 12.98                                  |
| Vial Number:         | 25                     | Injection Volume: | 200.00                                 |
| Injection Type:      | Unknown                | Channel:          | ECD_1                                  |
| Calibration Level:   |                        | Wavelength:       | n.a.                                   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                                   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0                                    |
| Injection Date/Time: | 06/Sep/21 21:31        | Sample Weight:    | 1.0                                    |
|                      |                        |                   | ······································ |



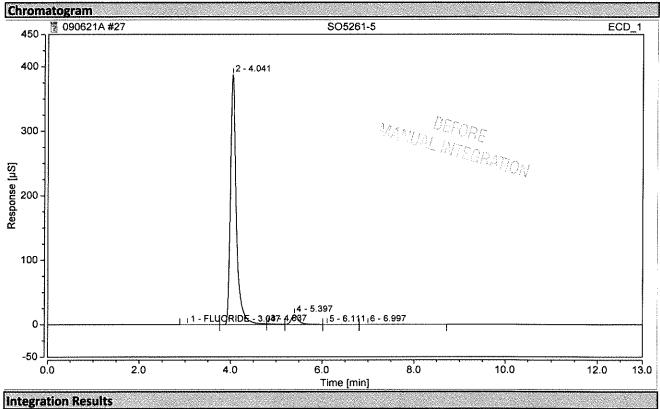
| Integ  | ration Results |                       |                |              |                    |                      |                |                |
|--------|----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.    | Peak Name      | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 188    | FLUORIDE       | 3.047                 | 0.025          | 0.134        | 0.04               | 0.03                 | 0.0532         | n.a.           |
| n.a.   | CHLORIDE       | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | NITRITE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a. 🕚 | SULFATE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 5 333  | BROMIDE        | 6.957                 | 2.749          | 12.521       | 4.32               | 3.03                 | 18.0003        | n.a.           |
| n.a.   | NITRATE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | PHOSPHATE      | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total: |                |                       | 2.774          | 12.655       | 4.36               | 3.06                 |                |                |

|                      | Chromatogram and Res   | ults              |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5261-4               | Run Time (min):   | 12.98  |
| Vial Number:         | 25                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 21:31        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |



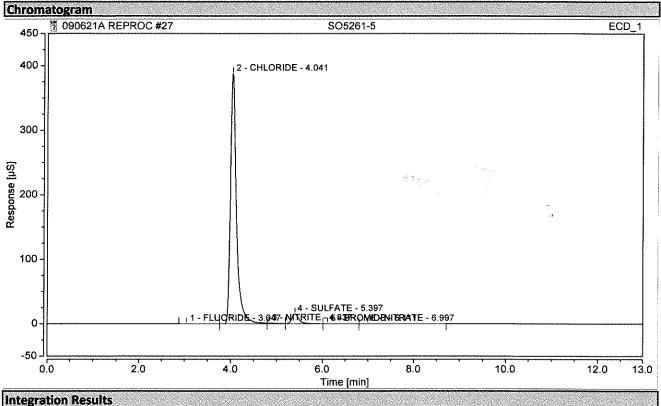
| No.   | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev. |
|-------|-----------|----------------|--------|---------|---------------|-----------------|----------|-----------|
|       |           | min            | µS*min | μŠ      | %             | %               | mg/L     | %         |
| 1     | FLUORIDE  | 3.047          | 0.025  | 0.134   | 0.04          | 0.03            | 0.0532   | n.a.      |
| 2 感   | CHLORIDE  | 4.041          | 58.009 | 385.131 | 91.11         | 93.24           | 198.7317 | n.a.      |
| n.a.  | NITRITE   | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| 3 🛞   | SULFATE   | 5.394          | 2.831  | 15.118  | 4.45          | 3.66            | 13.2622  | n.a.      |
| 4     | BROMIDE   | 6.107          | 0.056  | 0.146   | 0.09          | 0.04            | 0.2101   | n.a.      |
| 5     | NITRATE   | 6.957          | 2.749  | 12.521  | 4.32          | 3.03            | 3.6824   | n.a.      |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| Total | :         |                | 63.669 | 413.049 | 100.00        | 100.00          |          |           |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5261-5               | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 26                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 21:50        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



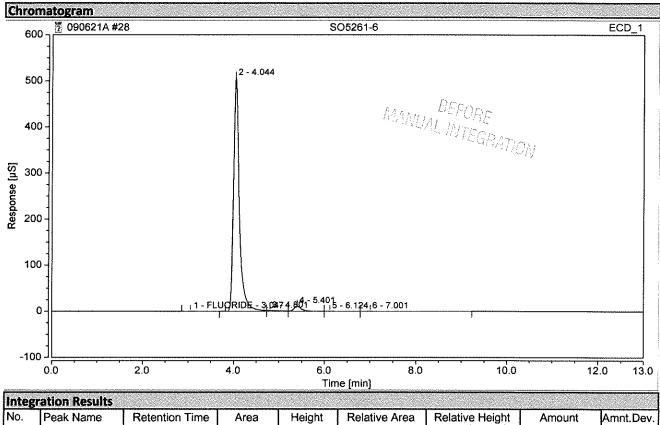
| No.    | Peak Name                             | Retention Time | Area   | Height | Relative Area | Relative Height | Amount       | Amnt.Dev. |
|--------|---------------------------------------|----------------|--------|--------|---------------|-----------------|--------------|-----------|
|        | I Car Indiric                         | min            | µS*min | μS     | %             | %               | mg/L         | %         |
| 1 333  | FLUORIDE                              | 3.047          | 0.027  | 0.138  | 0.04          | 0.03            | 0.0580       | n.a.      |
| n.a.   | CHLORIDE                              | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.         | n.a.      |
| n.a.   | NITRITE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.         | n.a.      |
| n.a.   | SULFATE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | <b>n.a</b> . | n.a.      |
| n.a. े | BROMIDE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.         | n.a.      |
| n.a.   | NITRATE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.         | n.a.      |
| n.a. 🔌 | PHOSPHATE                             | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.         | n.a.      |
| Total  | • • • • • • • • • • • • • • • • • • • |                | 0.027  | 0.138  | 0.04          | 0.03            |              |           |

| Chromatogram and Results |                        |                   |                                                                      |  |  |  |  |
|--------------------------|------------------------|-------------------|----------------------------------------------------------------------|--|--|--|--|
| Injection Details        |                        |                   | nga da papanti di 20 an antara (da sen<br>Romoli 20 an antari 20 ang |  |  |  |  |
| Injection Name:          | SO5261-5               | Run Time (min):   | 12.98                                                                |  |  |  |  |
| Vial Number:             | 26                     | Injection Volume: | 200.00                                                               |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1                                                                |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.                                                                 |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.                                                                 |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0                                                                  |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 21:50        | Sample Weight:    | 1.0                                                                  |  |  |  |  |
|                          |                        | · .               |                                                                      |  |  |  |  |



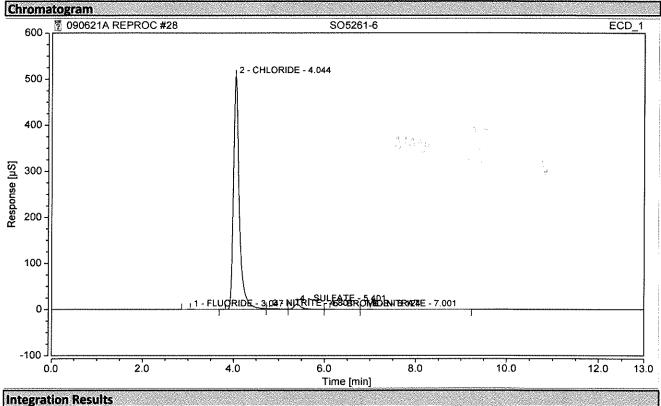
| No.   | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev |
|-------|-----------|----------------|--------|---------|---------------|-----------------|----------|----------|
|       |           | min            | µS*min | μŠ      | %             | %               | mg/L     | %        |
| 1.88  | FLUORIDE  | 3.047          | 0.027  | 0.138   | 0.04          | 0.03            | 0.0580   | n.a.     |
| 2 20  | CHLORIDE  | 4.041          | 57.758 | 387.898 | 94.73         | 95.91           | 197.8731 | n.a.     |
| 3     | NITRITE   | 4.837          | 0.256  | 0.964   | 0.42          | 0.24            | 0.4172   | n.a.     |
| 4     | SULFATE   | 5.397          | 2.838  | 15.231  | 4.65          | 3.77            | 13.2953  | n.a.     |
| 5.88  | BROMIDE   | 6.111          | 0.059  | 0.144   | 0.10          | 0.04            | 0.2066   | n.a.     |
| 6     | NITRATE   | 6.997          | 0.030  | 0.073   | 0.05          | 0.02            | 0.0691   | n.a.     |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| Total |           |                | 60.969 | 404.449 | 100.00        | 100.00          |          |          |

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5261-6               | Run Time (min):   | 12.99  |
| Vial Number:         | 27                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 22:09        | Sample Weight:    | 1.0    |
|                      |                        | ······            |        |



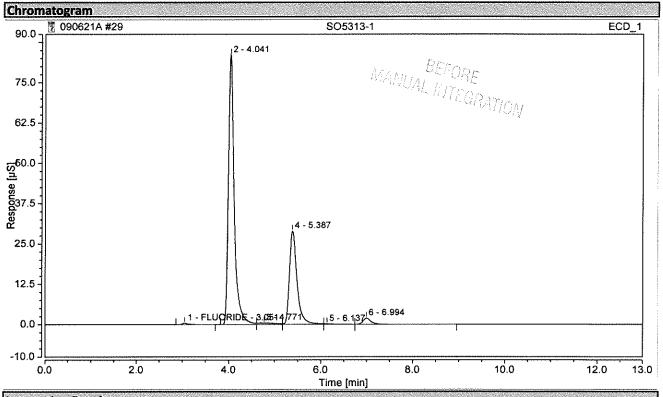
| No.     | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|---------|-----------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|         |           | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1 20000 | FLUORIDE  | 3.047          | 0.072  | 0.467  | 0.09          | 0.09            | 0.1517 | n.a.      |
| n.a.    | CHLORIDE  | n,a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.    | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a. 🛸  | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.    | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.    | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.    | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total:  |           |                | 0.072  | 0.467  | 0.09          | 0.09            |        |           |

|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5261-6               | Run Time (min):   | 12.99  |
| Vial Number:         | 27                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 22:09        | Sample Weight:    | 1.0    |
|                      |                        | · · ·             |        |



| No.           | Peak Name | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev |
|---------------|-----------|----------------|--------|---------|---------------|-----------------|----------|----------|
|               |           | min            | uS*min | μS      | %             | %               | mg/L     | %        |
| 1             | FLUORIDE  | 3.047          | 0.072  | 0.467   | 0.09          | 0.09            | 0.1517   | n.a.     |
| 2             | CHLORIDE  | 4.044          | 75.801 | 506.652 | 96.35         | 97.35           | 259.6566 | n.a.     |
| 3             | NITRITE   | 4.801          | 0.500  | 1.540   | 0.64          | 0.30            | 0.8153   | n.a.     |
| 4.            | SULFATE   | 5.401          | 2.164  | 11.454  | 2.75          | 2.20            | 10.1393  | n.a.     |
| 5 🛞           | BROMIDE   | 6.124          | 0.072  | 0.179   | 0.09          | 0.03            | 0.2571   | n.a.     |
| <b>6</b> (193 | NITRATE   | 7.001          | 0.060  | 0.175   | 0.08          | 0.03            | 0.1082   | n.a.     |
| n.a.          | PHOSPHATE | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| Total         |           | 1111 A 44      | 78.669 | 520.466 | 100.00        | 100.00          |          |          |

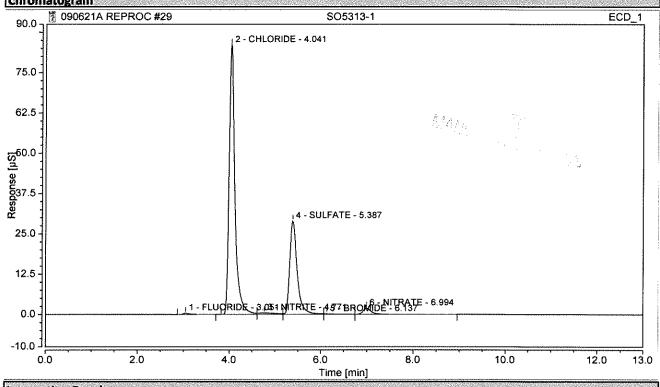
| Chromatogram and Results |                   |                                          |                                            |  |  |  |  |
|--------------------------|-------------------|------------------------------------------|--------------------------------------------|--|--|--|--|
|                          |                   |                                          | Injection Details                          |  |  |  |  |
| <br>12.99                | Run Time (min):   | SO5313-1                                 | Injection Name:                            |  |  |  |  |
| 200.00                   | Injection Volume: | 28                                       | Vial Number:                               |  |  |  |  |
| ECD_1                    | Channel:          | Unknown                                  | Injection Type:                            |  |  |  |  |
| n.a.                     | Wavelength:       |                                          | Calibration Level:                         |  |  |  |  |
| n.a.                     | Bandwidth:        | ASDV30mMIsocratic TEST                   | Instrument Method:                         |  |  |  |  |
| 1.0                      | Dilution Factor:  | KAT01 2100                               | Processing Method:                         |  |  |  |  |
| 1.0                      | Sample Weight:    | 06/Sep/21 22:27                          | en e   |  |  |  |  |
|                          |                   | 는 것 같은 것 같 | Processing Method:<br>Injection Date/Time: |  |  |  |  |



| No.         | Peak Name                                                                                                       | Retention Time | Area          | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------------|-----------------------------------------------------------------------------------------------------------------|----------------|---------------|--------|---------------|-----------------|--------|-----------|
| INO.        | reak Name                                                                                                       | Retenuon nine  |               |        |               |                 |        |           |
|             |                                                                                                                 | min            | <u>µS*min</u> | μS     | %             | %               | mg/L   | %         |
| <b>1</b> 激怒 | FLUORIDE                                                                                                        | 3.051          | 0.064         | 0.415  | 0.35          | 0.36            | 0.1364 | n.a.      |
| n.a.        | CHLORIDE                                                                                                        | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n,a.      |
| n.a.        | NITRITE                                                                                                         | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.        | SULFATE                                                                                                         | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.        | BROMIDE                                                                                                         | n.a.           | n.a. 😒        | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a. 🔇      | NITRATE                                                                                                         | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.        | PHOSPHATE                                                                                                       | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total       | 1999, and a second s |                | 0.064         | 0.415  | 0.35          | 0.36            |        |           |

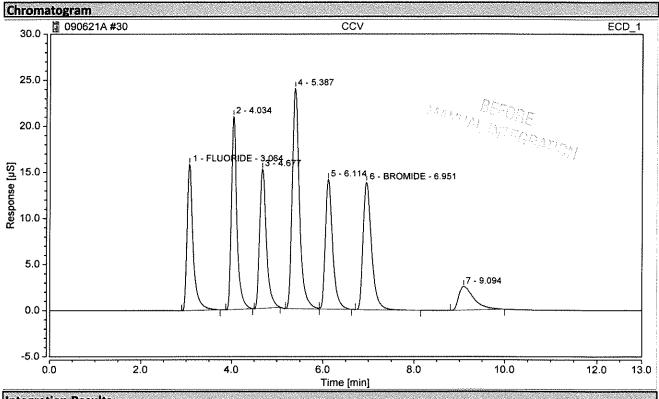
| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5313-1               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 28                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 22:27        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        |                   |        |  |  |  |  |

# Chromatogram



| No.           | Peak Name | Retention Time   | Area   | Height  | Relative Area | Relative Height | Amount  | Amnt.Dev. |
|---------------|-----------|------------------|--------|---------|---------------|-----------------|---------|-----------|
|               |           | min              | µS*min | μS      | %             | %               | mg/L    | %         |
| 1 2020        | FLUORIDE  | 3.051            | 0.064  | 0.415   | 0.35          | 0.36            | 0.1364  | n.a.      |
| 2             | CHLORIDE  | 4.041            | 12.289 | 83.550  | 66.65         | 72.35           | 42.1729 | n.a.      |
| 3 200         | NITRITE   | 4.771            | 0.199  | 0.475   | 1.08          | 0.41            | 0.3242  | n.a.      |
| 4             | SULFATE   | 5.387            | 5.440  | 28.984  | 29.50         | 25.10           | 25.4846 | n.a.      |
| 5             | BROMIDE   | 6.137            | 0.044  | 0.133   | 0.24          | 0.11            | 0.1909  | n.a.      |
| <b>6</b> 3888 | NITRATE   | 6.994            | 0.402  | 1.929   | 2.18          | 1.67            | 0.5628  | n.a.      |
| n.a.          | PHOSPHATE | n.a.             | n.a.   | n.a.    | rī.a.         | п.а.            | n.a.    | n.a.      |
| Totai:        |           | 2011년 22 22 23 2 | 18.438 | 115.485 | 100.00        | 100.00          |         |           |

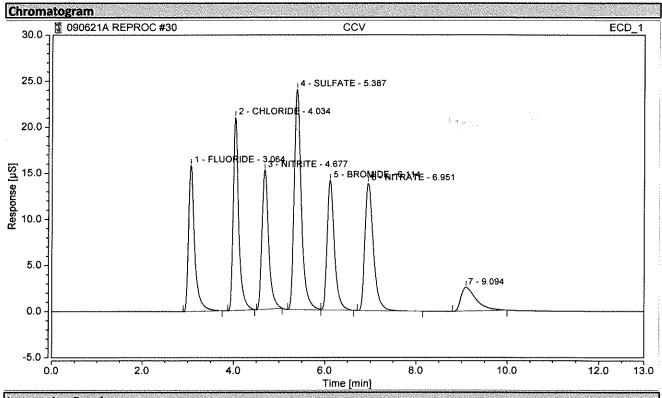
| Chromatogram and Results |                        |                                        |             |  |  |  |  |  |
|--------------------------|------------------------|----------------------------------------|-------------|--|--|--|--|--|
| Injection Details        |                        |                                        |             |  |  |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):                        | 12.98       |  |  |  |  |  |
| Vial Number:             | 29                     | Injection Volume:                      | 200.00      |  |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:                               | ECD_1       |  |  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:                            | n.a.        |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:                             | n.a.        |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:                       | 1.0         |  |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 22:46        | Sample Weight:                         | 1.0         |  |  |  |  |  |
|                          |                        | ······································ | *********** |  |  |  |  |  |



| Integ | gration Results |                       |                |              |                    |                      |                |                |
|-------|-----------------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| No.   | Peak Name       | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
| 1200  | FLUORIDE        | 3.064                 | 2.458          | 15.872       | 12.97              | 14.92                | 5.2092         | 4.1832         |
| n.a.  | CHLORIDE        | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | NITRITE         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | SULFATE         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| 6 888 | BROMIDE         | 6.951                 | 3.010          | 13.842       | 15.88              | 13.01                | 19.8987        | -0.5066        |
| n.a.  | NITRATE         | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.  | PHOSPHATE       | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total |                 | 이는 아파 가장 관람이 가 가지?    | 5.469          | 29.714       | 28.85              | 27.93                |                |                |

# Katahdin Analytical Services 5000289

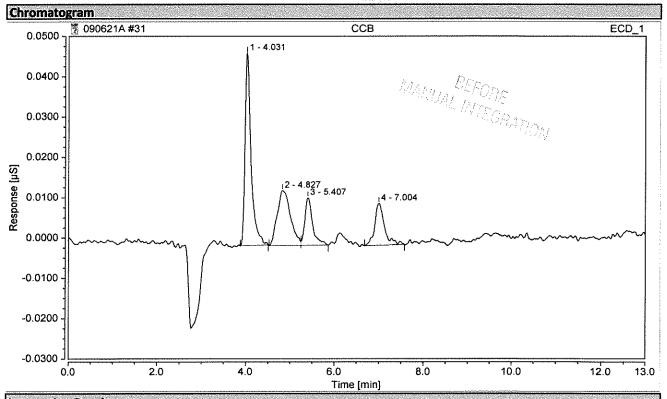
|                      | Chromatogram and Resi  | alts                                  |        |
|----------------------|------------------------|---------------------------------------|--------|
| Injection Details    |                        |                                       |        |
| Injection Name:      | CCV                    | Run Time (min):                       | 12.98  |
| Vial Number:         | 29                     | Injection Volume:                     | 200.00 |
| Injection Type:      | Check Standard         | Channel:                              | ECD_1  |
| Calibration Level:   | 06                     | Wavelength:                           | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:                            | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:                      | 1.0    |
| Injection Date/Time: | 06/Sep/21 22:46        | Sample Weight:                        | 1.0    |
|                      |                        | · · · · · · · · · · · · · · · · · · · |        |



| Integ | ration Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 | and the second | a second and |                    | A CARLES AND A CONTRACT OF |                |                |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------|--------------|--------------------|----------------------------|----------------|----------------|
| No.   | Peak Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Retention Time<br>min                                                                                           | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>%       | Amount<br>mg/L | Amnt.Dev.<br>% |
| 188   | FLUORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.064                                                                                                           | 2.458          | 15.872       | 12.97              | 14.92                      | 5.2092         | 4.1832         |
| 2     | CHLORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.034                                                                                                           | 2.959          | 20.983       | 15.61              | 19.72                      | 10.2222        | 2.2219         |
| 3     | NITRITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4.677                                                                                                           | 2.582          | 15.121       | 13.62              | 14.21                      | 4.2058         | 5.1456         |
| 4     | SULFATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5.387                                                                                                           | 4.348          | 23.930       | 22.94              | 22.49                      | 20.3700        | 1.8502         |
| 5 88  | BROMIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 6.114                                                                                                           | 2.605          | 14.068       | 13.74              | 13.22                      | 20.2245        | 1.1226         |
| 6 888 | NITRATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 6.951                                                                                                           | 3.010          | 13.842       | 15.88              | 13.01                      | 4.0304         | 0.7606         |
| n.a.  | PHOSPHATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | n.a.                                                                                                            | n.a.           | n.a.         | n.a.               | n.a.                       | n.a.           | n.a.           |
| Total | terre de la companya | a de la companya de l | 17.962         | 103.817      | 94.77              | 97.59                      |                |                |

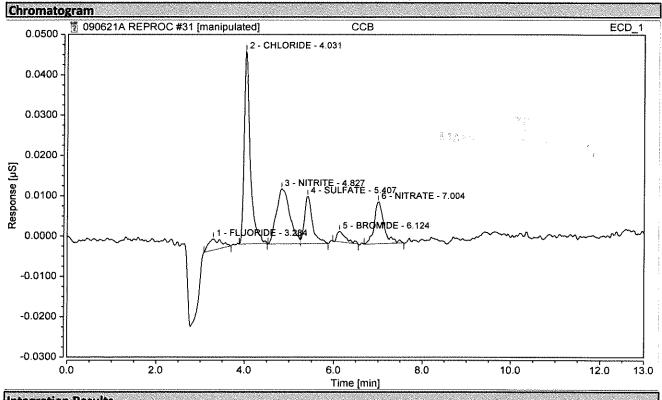
11.5

|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.99  |
| Vial Number:         | 30                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 23:05        | Sample Weight:    | 1.0    |
|                      |                        | ·                 |        |



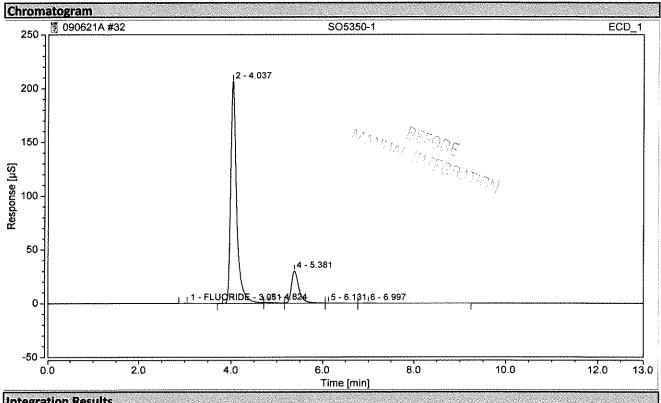
| No.  | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| n.a. | FLUORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Tota | l;        |                       | 0.000          | 0.000        | 0.00               | 0.00              |                |                |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | ССВ                    | Run Time (min):   | 12.99  |
| Vial Number:         | 30                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 06/Sep/21 23:05        | Sample Weight:    | 1.0    |



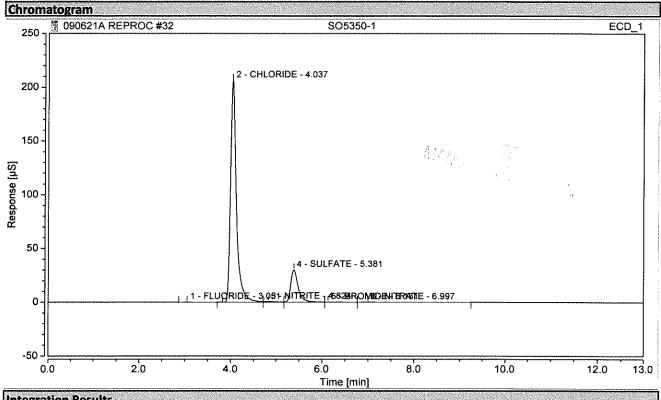
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|        |           | min            | µS*min | μŜ     | %             | %               | mg/L   | %        |
| 1 2838 | FLUORIDE  | 3.284          | 0.001  | 0.003  | 4.88          | 3.19            | 0.0020 | n.a.     |
| 2      | CHLORIDE  | 4.031          | 0.008  | 0.048  | 39.74         | 53.65           | 0.1158 | n.a.     |
| 3.888  | NITRITE   | 4.827          | 0.005  | 0.014  | 25.30         | 15.34           | 0.0078 | n.a.     |
| 4      | SULFATE   | 5.407          | 0.002  | 0.012  | 12.86         | 13.25           | 0.0114 | n.a.     |
| 5 383  | BROMIDE   | 6.124          | 0.001  | 0.003  | 3.11          | 2.90            | 0.0037 | n.a.     |
| 6 333  | NITRATE   | 7.004          | 0.003  | 0.010  | 14.11         | 11.67           | 0.0323 | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total  | •         |                | 0.019  | 0.089  | 100.00        | 100.00          |        |          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5350-1               | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 31                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 23:24        | Sample Weight:    | 1.0    |  |  |  |



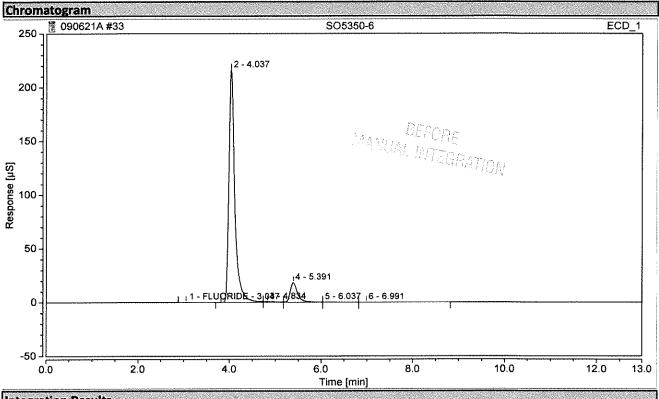
| Nia   | Deels Nimmer | Detention Time | A      | Lloight | Deletive Area | Relative Height | Amount      | Amet Dave |
|-------|--------------|----------------|--------|---------|---------------|-----------------|-------------|-----------|
| No.   | Peak Name    | Retention Time | Area   | Height  | Relative Area |                 | Amount      | Amnt.Dev. |
|       | A MARK NOT   | min            | µS*min | μS      | %             | %               | mg/L        | %         |
| 1.88  | FLUORIDE     | 3.051          | 0.056  | 0.354   | 0.15          | 0.15            | 0.1180      | n.a.      |
| n.a.  | CHLORIDE     | n.a.           | ก.ล.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | NITRITE      | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | SULFATE      | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | BROMIDE      | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | NITRATE      | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.  | PHOSPHATE    | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | <u>n.a.</u> | n.a.      |
| Total |              |                | 0.056  | 0.354   | 0.15          | 0.15            |             |           |

| Chromatogram and Results |                                                                   |                                                                                                                                                                                                                                         |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|                          |                                                                   |                                                                                                                                                                                                                                         |  |  |  |  |
| SO5350-1                 | Run Time (min):                                                   | 12.99                                                                                                                                                                                                                                   |  |  |  |  |
| 31                       | Injection Volume:                                                 | 200.00                                                                                                                                                                                                                                  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD_1                                                                                                                                                                                                                                   |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                                                                                                                                    |  |  |  |  |
| ASDV30mMisocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                                                                                                                                    |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 1.0                                                                                                                                                                                                                                     |  |  |  |  |
| 06/Sep/21 23:24          | Sample Weight:                                                    | 1.0                                                                                                                                                                                                                                     |  |  |  |  |
|                          | SO5350-1<br>31<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100 | SO5350-1       Run Time (min):         31       Injection Volume:         Unknown       Channel:         ASDV30mMisocratic TEST       Bandwidth:         KAT01 2100       Dilution Factor:         06/Sep/21 23:24       Sample Weight: |  |  |  |  |



|               | IB- I N                                |                | A      | 1 1     | Delet Area    | Challesting 1 to ball |          | 1             |
|---------------|----------------------------------------|----------------|--------|---------|---------------|-----------------------|----------|---------------|
| No.           | Peak Name                              | Retention Time | Area   | Height  | Relative Area | Relative Height       | Amount   | Amnt.Dev      |
|               |                                        | min            | µS*min | μS      | %             | %                     | mg/L     | %             |
| 1 333         | FLUORIDE                               | 3.051          | 0.056  | 0.354   | 0.15          | 0.15                  | 0.1180   | n.a.          |
| 2             | CHLORIDE                               | 4.037          | 30.798 | 206.490 | 83.48         | 86.71                 | 105.5534 | n.a.          |
| <b>3</b> ිරිස | NITRITE                                | 4.824          | 0.220  | 0.633   | 0.60          | 0.27                  | 0.3587   | n.a.          |
| 4             | SULFATE                                | 5.381          | 5.687  | 30.269  | 15.41         | 12.71                 | 26.6432  | <u>ം</u> n.a. |
| <b>5</b> 🛞    | BROMIDE                                | 6.131          | 0.063  | 0.173   | 0.17          | 0.07                  | 0.2486   | n.a.          |
| 6 48%         | NITRATE                                | 6.997          | 0.069  | 0.224   | 0.19          | 0.09                  | 0.1201   | n.a.          |
| n.a.          | PHOSPHATE                              | n.a.           | n.a.   | n.a.    | n.a.          | n.a.                  | n.a.     | n.a.          |
| Total         | ************************************** |                | 36.893 | 238.143 | 100.00        | 100.00                |          |               |

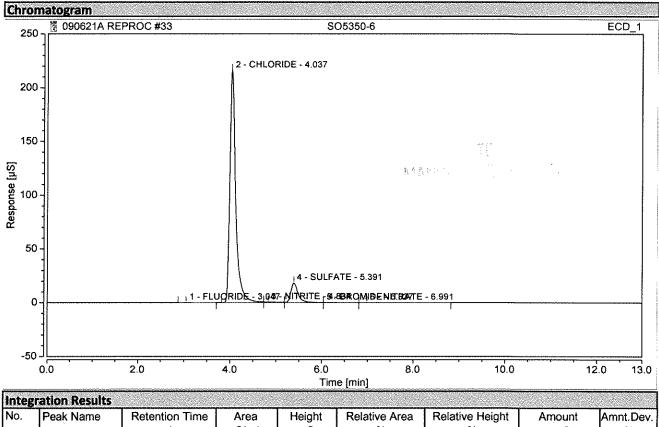
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5350-6               | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 32                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 06/Sep/21 23:43        | Sample Weight:    | 1.0    |  |  |  |
| 1000000                  |                        | ·                 |        |  |  |  |



| No.    | Peak Name                                | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|------------------------------------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|        | 1. A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1 3933 | FLUORIDE                                 | 3.047          | 0.033  | 0.160  | 0.09          | 0.07            | 0.0705 | n.a.      |
| n.a.   | CHLORIDE                                 | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRITE                                  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | SULFATE                                  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | BROMIDE                                  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRATE                                  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | PHOSPHATE                                | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total: |                                          |                | 0.033  | 0.160  | 0.09          | 0.07            |        |           |

# Katahdin Analytical Services 5000295

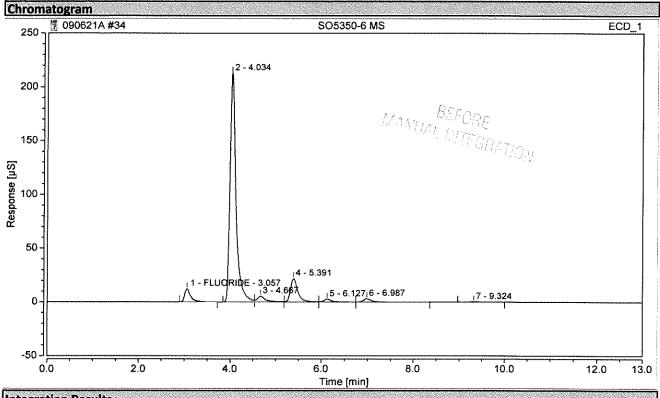
| Chromatogram and Results |                        |                   |                                         |  |  |  |  |
|--------------------------|------------------------|-------------------|-----------------------------------------|--|--|--|--|
| Injection Details        |                        |                   |                                         |  |  |  |  |
| Injection Name:          | SO5350-6               | Run Time (min):   | 12.98                                   |  |  |  |  |
| Vial Number:             | 32                     | Injection Volume: | 200.00                                  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1                                   |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.                                    |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                                    |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0                                     |  |  |  |  |
| Injection Date/Time:     | 06/Sep/21 23:43        | Sample Weight:    | 1.0                                     |  |  |  |  |
|                          |                        |                   | *************************************** |  |  |  |  |



| No.   | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|-------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1.88  | FLUORIDE  | 3.047                 | 0.033          | 0.160        | 0.09               | 0.07              | 0.0705         | n.a.           |
| 2 444 | CHLORIDE  | 4.037                 | 32.347         | 216.135      | 89.78              | 91.85             | 110.8558       | n.a.           |
| 3 388 | NITRITE   | 4.834                 | 0.189          | 0.566        | 0.53               | 0.24              | 0.3085         | n.a.           |
| 4     | SULFATE   | 5.391                 | 3.395          | 18.303       | 9.42               | 7.78              | 15.9055        | n.a.           |
| 5     | BROMIDE   | 6.037                 | 0.048          | 0.127        | 0.13               | 0.05              | 0.1825         | n.a.           |
| 6     | NITRATE   | 6.991                 | 0.018          | 0.034        | 0.05               | 0.01              | 0.0527         | n.a.           |
| n.a.  | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n,a.               | n.a.              | n.a.           | n.a.           |
| Total | •         |                       | 36.030         | 235.325      | 100.00             | 100.00            |                |                |

Default(1)/Integration

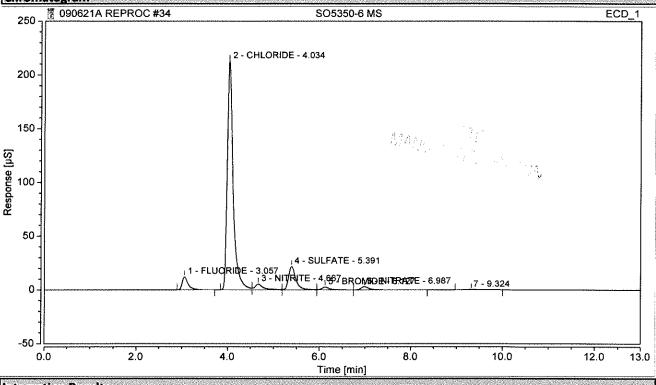
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5350-6 MS            | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 33                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 07/Sep/21 00:01        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|-------|-----------|----------------|--------|--------|---------------|-----------------|--------|----------|
|       |           | min            | µS*min | μS     | %             | %               | mg/L   | %        |
| 1 888 | FLUORIDE  | 3.057          | 1.858  | 12.190 | 4.65          | 4.73            | 3.9361 | n.a.     |
| n.a.  | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.  | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.  | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.  | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.  | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total |           |                | 1.858  | 12.190 | 4.65          | 4.73            |        |          |

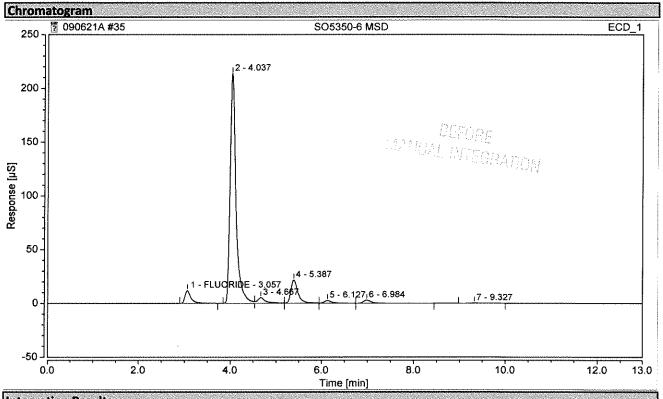
| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5350-6 MS            | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 33                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 07/Sep/21 00:01        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |





| No.   | Peak Name       | Retention Time | Area   | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev. |
|-------|-----------------|----------------|--------|---------|---------------|-----------------|----------|-----------|
|       |                 | min            | µS*min | μS      | %             | %               | mg/L     | %         |
| 1     | FLUORIDE        | 3.057          | 1.858  | 12.190  | 4.65          | 4.73            | 3.9361   | n.a.      |
| 2     | CHLORIDE        | 4.034          | 31.726 | 212.705 | 79.48         | 82.52           | 108.7287 | n.a.      |
| 3     | NITRITE         | 4.667          | 1.120  | 5.396   | 2.81          | 2.09            | 1.8250   | n.a.      |
| 4     | SULFATE         | 5.391          | 4.016  | 21.698  | 10.06         | 8.42            | 18.8137  | n.a.      |
| 5     | BROMIDE         | 6.127          | 0.496  | 2.583   | 1.24          | 1.00            | 3.7134   | n.a.      |
| 6     | NITRATE         | 6.987          | 0.604  | 2.942   | 1.51          | 1.14            | 0.8310   | n.a.      |
| n.a.  | PHOSPHATE       | n.a.           | n.a.   | n.a.    | n.a.          | n.a.            | n.a.     | n.a.      |
| Total | • And Sectors ( |                | 39.819 | 257.515 | 99.75         | 99.91           |          |           |

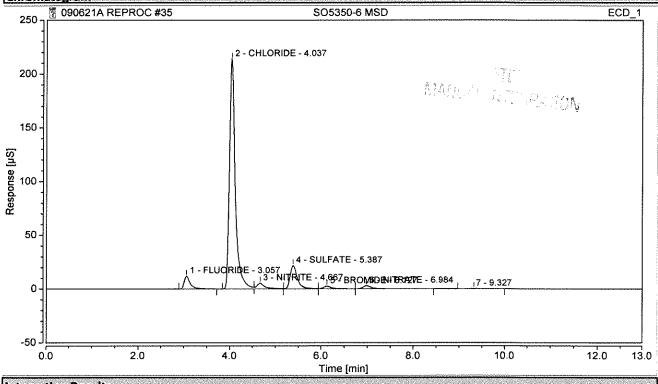
|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5350-6 MSD           | Run Time (min):   | 12.98  |
| Vial Number:         | 34                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 07/Sep/21 00:20        | Sample Weight:    | 1.0    |



| A I -  |           |                | To the management of the second s | T      |               | Γ               |        | I         |
|--------|-----------|----------------|----------------------------------------------------------------------------------------------------------------|--------|---------------|-----------------|--------|-----------|
| No.    | Peak Name | Retention Time | Area                                                                                                           | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|        |           | min            | µS*min                                                                                                         | μS     | %             | %               | mg/L   | %         |
| 1 2000 | FLUORIDE  | 3.057          | 1.802                                                                                                          | 11.915 | 4.53          | 4.62            | 3.8182 | n.a.      |
| n.a.   | CHLORIDE  | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRITE   | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | SULFATE   | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | BROMIDE   | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRATE   | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | PHOSPHATE | n.a.           | n.a.                                                                                                           | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total  |           |                | 1.802                                                                                                          | 11.915 | 4.53          | 4.62            |        |           |

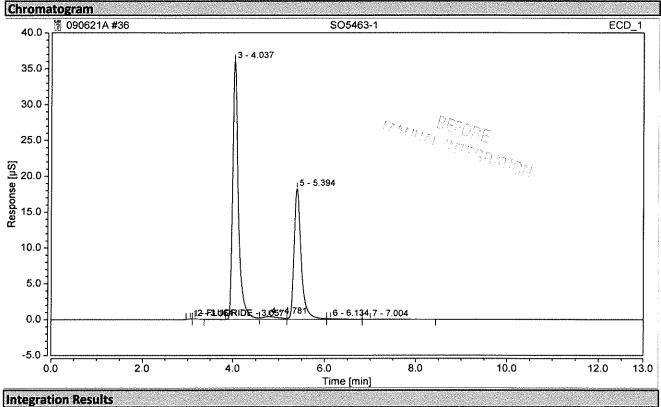
| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5350-6 MSD           | Run Time (min):   | 12.98  |  |  |  |  |
| Vial Number:             | 34                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 00:20        | Sample Weight:    | 1.0    |  |  |  |  |





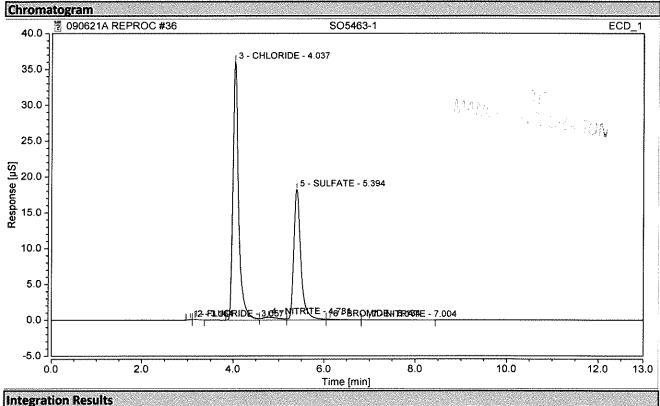
| No.   | Peak Name    | Retention Time | Area          | Height  | Relative Area | Relative Height | Amount   | Amnt.Dev |
|-------|--------------|----------------|---------------|---------|---------------|-----------------|----------|----------|
| NO.   | reak ivallie | Retendon Tane  |               | Height  |               |                 |          |          |
|       |              | l min l        | <u>µS*min</u> | μS      | %             | %               | mg/L     | %        |
| 1 88  | FLUORIDE     | 3.057          | 1.802         | 11.915  | 4.53          | 4.62            | 3.8182   | n.a.     |
| 2     | CHLORIDE     | 4.037          | 31.737        | 213.768 | 79.79         | 82.81           | 108.7661 | n.a.     |
| 3 🕸   | NITRITE      | 4.667          | 1.092         | 5.265   | 2.75          | 2.04            | 1.7787   | n.a.     |
| 4     | SULFATE      | 5.387          | 3.993         | 21.648  | 10.04         | 8.39            | 18.7090  | n.a.     |
| 5 880 | BROMIDE      | 6.127          | 0.478         | 2.502   | 1.20          | 0.97            | 3.5973   | n.a.     |
| 6 🔆   | NITRATE      | 6.984          | 0.579         | 2.837   | 1.46          | 1.10            | 0.7988   | n.a.     |
| n.a.  | PHOSPHATE    | n.a.           | n.a.          | n.a.    | n.a.          | n.a.            | n.a.     | n.a.     |
| Total | •            |                | 39.681        | 257.935 | 99.77         | 99.91           |          |          |

| Chromatogram and Results |                                                                   |                                                                                                                                                            |  |  |  |  |  |
|--------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                          |                                                                   |                                                                                                                                                            |  |  |  |  |  |
| SO5463-1                 | Run Time (min):                                                   | 12.98                                                                                                                                                      |  |  |  |  |  |
| 35                       | Injection Volume:                                                 | 200.00                                                                                                                                                     |  |  |  |  |  |
| Unknown                  | Channel:                                                          | ECD_1                                                                                                                                                      |  |  |  |  |  |
|                          | Wavelength:                                                       | n.a.                                                                                                                                                       |  |  |  |  |  |
| ASDV30mMIsocratic TEST   | Bandwidth:                                                        | n.a.                                                                                                                                                       |  |  |  |  |  |
| KAT01 2100               | Dilution Factor:                                                  | 2.0                                                                                                                                                        |  |  |  |  |  |
| 07/Sep/21 00:39          | Sample Weight:                                                    | 1.0                                                                                                                                                        |  |  |  |  |  |
|                          | SO5463-1<br>35<br>Unknown<br>ASDV30mMisocratic TEST<br>KAT01 2100 | SO5463-1<br>35<br>Unknown<br>ASDV30mMIsocratic TEST<br>KAT01 2100<br>Run Time (min):<br>Injection Volume:<br>Wavelength:<br>Bandwidth:<br>Dilution Factor: |  |  |  |  |  |



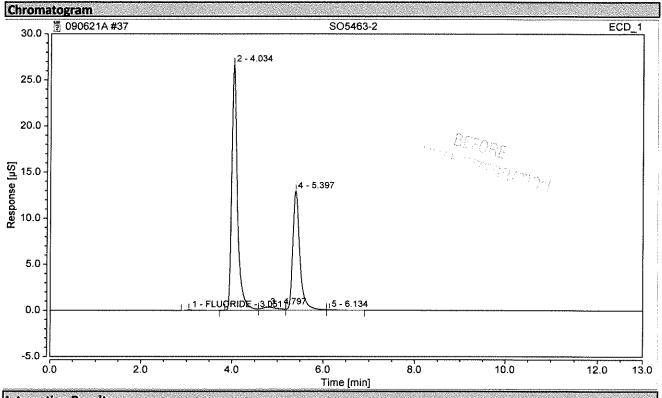
| No.    | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount      | Amnt.Dev |
|--------|-----------|----------------|--------|--------|---------------|-----------------|-------------|----------|
|        |           | min            | µS*min | μS     | %             | %               | mg/L        | %        |
| 1288   | FLUORIDE  | 3.057          | 0.003  | 0.030  | 0.03          | 0.06            | 0.0114      | n.a.     |
| n.a.   | CHLORIDE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.     |
| n.a.   | NITRITE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.     |
| n.a.   | SULFATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | <u>n.a.</u> | n.a.     |
| n.a.   | BROMIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.     |
| n.a. 🖔 | NITRATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.     |
| Total  | :         |                | 0.003  | 0.030  | 0.03          | 0.06            |             | 1        |

|                      | Chromatogram and Resu  | lts               |                                 |
|----------------------|------------------------|-------------------|---------------------------------|
| Injection Details    |                        |                   | nanoval contactor of the second |
| Injection Name:      | SO5463-1               | Run Time (min):   | 12.98                           |
| Vial Number:         | 35                     | Injection Volume: | 200.00                          |
| Injection Type:      | Unknown                | Channel:          | ECD_1                           |
| Calibration Level:   |                        | Wavelength:       | n.a.                            |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                            |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 2.0                             |
| Injection Date/Time: | 07/Sep/21 00:39        | Sample Weight:    | 1.0                             |
|                      |                        |                   |                                 |



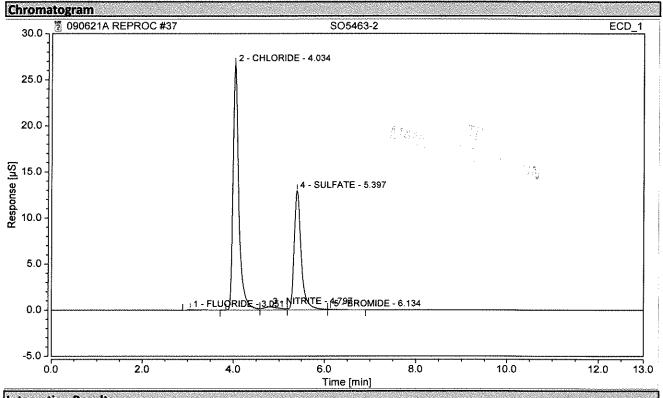
| rahamahayahoja | ration Results |                | PARAMETARY DIAMETRICAL | -in artiste anondallin farfaðar stranderaði | Party revealed which which which we had a week of | A COLOR OF THE PROPERTY OF THE | CONTRACTOR AND ADDRESS OF A DRESS | stand of the second second stands and the second |
|----------------|----------------|----------------|------------------------|---------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| No.            | Peak Name      | Retention Time | Area                   | Height                                      | Relative Area                                     | Relative Height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Amount                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Amnt.Dev                                                                                                        |
|                |                | min            | µS*min                 | μS                                          | %                                                 | %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | mg/L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | %                                                                                                               |
| 1 3263         | FLUORIDE       | 3.057          | 0.003                  | 0.030                                       | 0.03                                              | 0.06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.0114                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | n.a.                                                                                                            |
| 3 88           | CHLORIDE       | 4.037          | 5.236                  | 36.080                                      | 59.53                                             | 65.72                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 36.0425                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | n.a.                                                                                                            |
| 4 🛇            | NITRITE        | 4.781          | 0.168                  | 0.400                                       | 1.90                                              | 0.73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.5458                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ่ ก.ล.                                                                                                          |
| 5 88           | SULFATE        | 5.394          | 3.342                  | 18.238                                      | 37.99                                             | 33.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 31.3128                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | n.a.                                                                                                            |
| 6 333          | BROMIDE        | 6.134          | 0.035                  | 0.095                                       | 0.39                                              | 0.17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.2731                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | n.a.                                                                                                            |
| 7 3883         | NITRATE        | 7.004          | 0.010                  | 0.021                                       | 0.12                                              | 0.04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.0846                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | n.a.                                                                                                            |
| n.a. 🔅         | PHOSPHATE      | n.a.           | n.a.                   | n.a.                                        | n.a.                                              | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n.a.                                                                                                            |
| Total          |                |                | 8.793                  | 54.865                                      | 99.96                                             | 99.94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5463-2               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 36                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 00:58        | Sample Weight:    | 1.0    |  |  |  |  |
|                          |                        | ·                 |        |  |  |  |  |



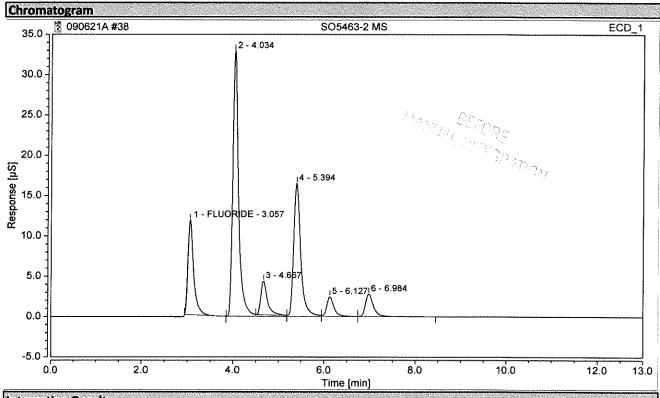
| No.    | Peak Name   | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|-------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|        | - our runio | min            | uS*min | μS     | %             | %               | mg/L   | %         |
| 1 88%  | FLUORIDE    | 3.051          | 0.015  | 0.060  | 0.23          | 0.15            | 0.0625 | n.a.      |
| n.a.   | CHLORIDE    | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRITE     | n.a.           | n.a.   | n.a.   | n.a.          | п.а.            | n.a.   | n.a.      |
| n.a.   | SULFATE     | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a. 😳 | BROMIDE     | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRATE     | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | PHOSPHATE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total  |             |                | 0.015  | 0.060  | 0.23          | 0.15            |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |
| Injection Name:          | SO5463-2               | Run Time (min):   | 12.99  |  |  |  |  |
| Vial Number:             | 36                     | Injection Volume: | 200.00 |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 00:58        | Sample Weight:    | 1.0    |  |  |  |  |



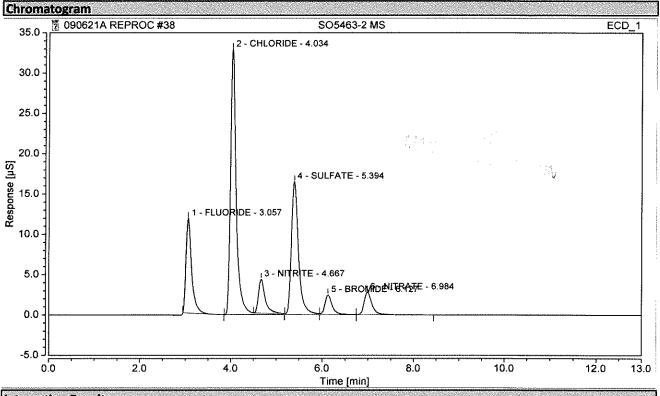
| Integ | gration Results |                |        |        |               |                 |         |          |
|-------|-----------------|----------------|--------|--------|---------------|-----------------|---------|----------|
| No.   | Peak Name       | Retention Time | Area   | Height | Relative Area | Relative Height | Amount  | Amnt.Dev |
|       |                 | min            | uS*min | μS     | %             | %               | mg/L    | %        |
| 1     | FLUORIDE        | 3.051          | 0.015  | 0.060  | 0.23          | 0.15            | 0.0625  | n.a.     |
| 2     | CHLORIDE        | 4.034          | 3.884  | 26.697 | 60.59         | 66.61           | 26.7767 | n.a.     |
| 3.233 | NITRITE         | 4.797          | 0.136  | 0.335  | 2.12          | 0.84            | 0.4436  | n.a.     |
| 4     | SULFATE         | 5.397          | 2.358  | 12.933 | 36.79         | 32.27           | 22.0964 | n.a.     |
| 5 🔊   | BROMIDE         | 6.134          | 0.016  | 0.055  | 0.26          | 0.14            | 0.1580  | n.a.     |
| n.a.  | NITRATE         | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| n.a.  | PHOSPHATE       | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.    | n.a.     |
| Total | •               |                | 6.409  | 40.079 | 100.00        | 100.00          |         |          |

|                      | Chromatogram and Re    | esults            |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5463-2 MS            | Run Time (min):   | 12.99  |
| Vial Number:         | 37                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD 1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 2.0    |
| Injection Date/Time: | 07/Sep/21 01:17        | Sample Weight:    | 1.0    |



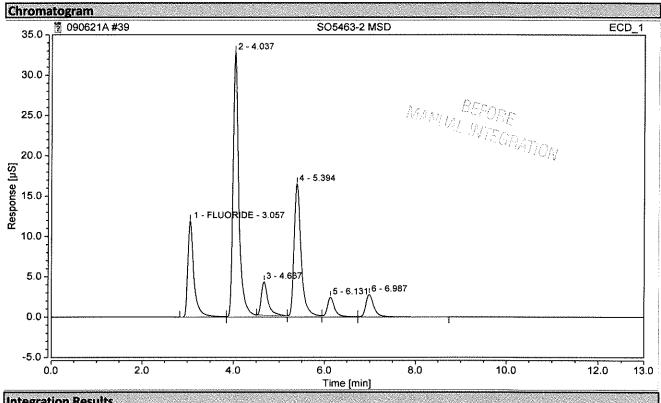
| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>ma/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 13333  | FLUORIDE  | 3.057                 | 1.678          | 11.734       | 14.85              | 16.63                | 7.1129         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a. 🔿 | SULFATE   | n.a.                  | n.a.           | n.a.         | 5. <b>n.a.</b>     | n.a.                 | n.a.           | n.a.           |
| n.a. 🛇 | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a. 🛸 | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total: |           |                       | 1.678          | 11.734       | 14.85              | 16.63                |                |                |

| Constant de Calender (* 19<br>Calender (* 1990) Calender (* 1997) | Chromatogram and Res   | ults              | n fore Sector Concerning and Sector Sector<br>Generation of Mathematical Difference (1999) |
|-------------------------------------------------------------------|------------------------|-------------------|--------------------------------------------------------------------------------------------|
| Injection Details                                                 |                        |                   |                                                                                            |
| Injection Name:                                                   | SO5463-2 MS            | Run Time (min):   | 12.99                                                                                      |
| Vial Number:                                                      | 37                     | Injection Volume: | 200.00                                                                                     |
| Injection Type:                                                   | Unknown                | Channel:          | ECD_1                                                                                      |
| Calibration Level:                                                |                        | Wavelength:       | n.a.                                                                                       |
| Instrument Method:                                                | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.                                                                                       |
| Processing Method:                                                | KAT01 2100             | Dilution Factor:  | 2.0                                                                                        |
| Injection Date/Time:                                              | 07/Sep/21 01:17        | Sample Weight:    | 1.0                                                                                        |



| No            | Deals Manag | Detention Times | A      | Uninet | Deletive Aree | Deletive Metchet | Δ       | IA mant Day |
|---------------|-------------|-----------------|--------|--------|---------------|------------------|---------|-------------|
| No.           | Peak Name   | Retention Time  | Area   | Height | Relative Area | Relative Height  | Amount  | Amnt.Dev.   |
|               |             | min             | µS*min | μS     | %             | %                | mg/L    | %           |
| 1 388         | FLUORIDE    | 3.057           | 1.678  | 11.734 | 14.85         | 16.63            | 7.1129  | n.a.        |
| 2 🖉           | CHLORIDE    | 4.034           | 4.880  | 32.905 | 43.18         | 46.62            | 33.6040 | n.a.        |
| 3 🛞           | NITRITE     | 4.667           | 0.713  | 4.191  | 6.31          | 5.94             | 2.3235  | n.a.        |
| 4 333         | SULFATE     | 5.394           | 3.004  | 16.504 | 26.58         | 23.38            | 28.1501 | n.a.        |
| 5             | BROMIDE     | 6.127           | 0.455  | 2.445  | 4.03          | 3.46             | 7.0304  | n.a.        |
| <b>6</b> 1000 | NITRATE     | 6.984           | 0.570  | 2.799  | 5.05          | 3.97             | 1.5737  | n.a.        |
| n.a.          | PHOSPHATE   | n.a.            | n.a.   | n.a.   | n.a.          | n.a.             | n.a.    | n.a.        |
| Total         |             |                 | 11.301 | 70.578 | 100.00        | 100.00           |         |             |

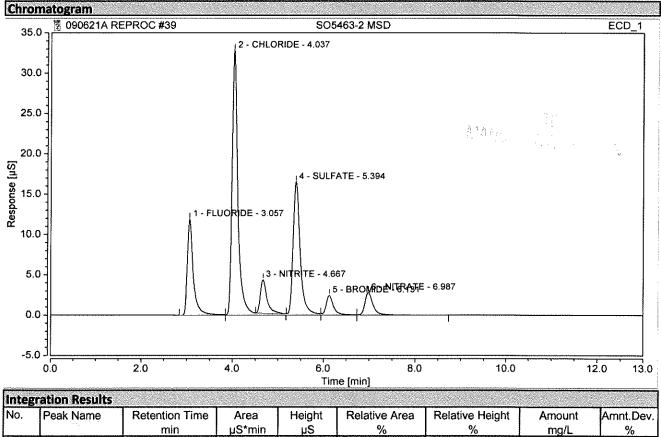
|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5463-2 MSD           | Run Time (min):   | 12.99  |
| Vial Number:         | 38                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 2.0    |
| Injection Date/Time: | 07/Sep/21 01:35        | Sample Weight:    | 1.0    |
|                      |                        | ·                 |        |



| No.    | Peak Name  | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|--------|------------|----------------|--------|--------|---------------|-----------------|--------|-----------|
| NO     | reak iname |                |        |        |               |                 |        |           |
|        | e estesi   | min            | µS*min | μS     | %             | %               | mg/L   | %         |
| 1988   | FLUORIDE   | 3.057          | 1.833  | 11.916 | 15.84         | 16.86           | 7.7660 | n.a.      |
| n.a.   | CHLORIDE   | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a. 🛇 | NITRITE    | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | п.а.   | n.a.      |
| n.a.   | SULFATE    | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | BROMIDE    | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | NITRATE    | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| n.a.   | PHOSPHATE  | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total  |            |                | 1.833  | 11.916 | 15.84         | 16.86           |        |           |

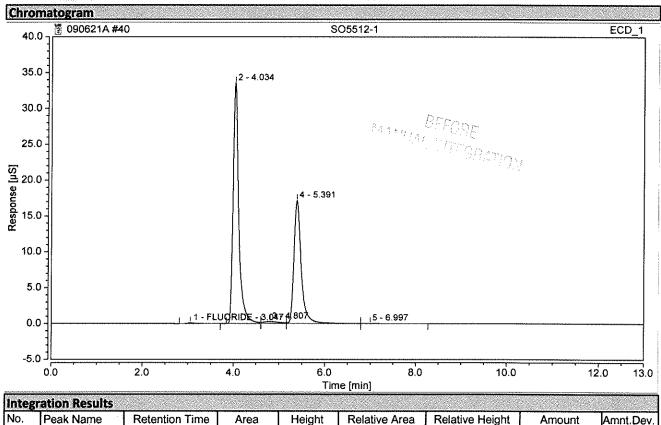
1.5.15

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | SO5463-2 MSD           | Run Time (min):   | 12.99  |  |  |  |
| Vial Number:             | 38                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD 1  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 2.0    |  |  |  |
| Injection Date/Time:     | 07/Sep/21 01:35        | Sample Weight:    | 1.0    |  |  |  |



| No.          | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| 1 200        | FLUORIDE  | 3.057                 | 1.833          | 11.916       | 15.84              | 16.86             | 7.7660         | n.a.           |
| 2            | CHLORIDE  | 4.037                 | 4.944          | 32.845       | 42.73              | 46.46             | 34.0399        | n.a.           |
| 3 🔅          | NITRITE   | 4.667                 | 0.707          | 4.159        | 6.11               | 5.88              | 2.3048         | n.a.           |
| 4            | SULFATE   | 5.394                 | 3.029          | 16.523       | 26.18              | 23.37             | 28.3866        | n.a.           |
| 5 88         | BROMIDE   | 6.131                 | 0.471          | 2.450        | 4.07               | 3.47              | 7.0455         | n.a.           |
| <b>6</b> 283 | NITRATE   | 6.987                 | 0.586          | 2.797        | 5.07               | 3.96              | 1.6160         | n.a.           |
| n.a.         | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total        |           |                       | 11.571         | 70.691       | 100.00             | 100.00            |                |                |

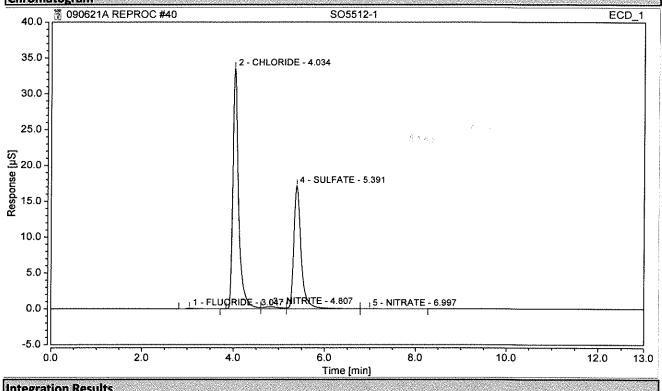
|                      | Chromatogram and Re    | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | SO5512-1               | Run Time (min):   | 12.99  |
| Vial Number:         | 39                     | Injection Volume: | 200.00 |
| Injection Type:      | Unknown                | Channel:          | ECD_1  |
| Calibration Level:   |                        | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 2.0    |
| Injection Date/Time: | 07/Sep/21 01:54        | Sample Weight:    | 1.0    |
|                      |                        | ·                 |        |



| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height<br>% | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|----------------------|----------------|----------------|
| 1 333  | FLUORIDE  | 3.047                 | 0.020          | 0.092        | 0.24               | 0.18                 | 0.0839         | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.                 | n.a.           | n.a.           |
| Total: |           |                       | 0.020          | 0.092        | 0.24               | 0.18                 |                |                |

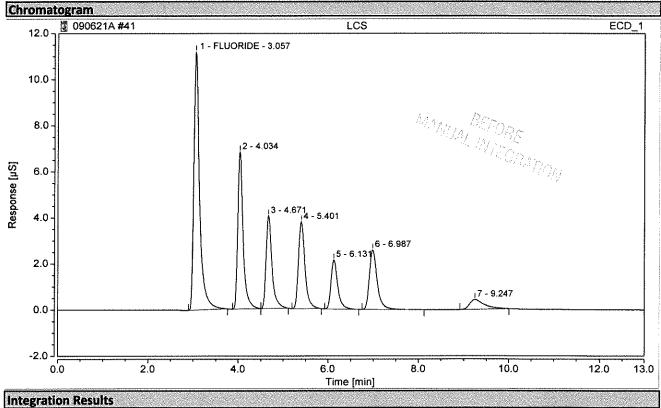
|                      | Chromatogram and       | Results             |       |
|----------------------|------------------------|---------------------|-------|
| Injection Details    |                        |                     |       |
| Injection Name:      | SO5512-1               | Run Time (min): 1   | 2.99  |
| Vial Number:         | 39                     | Injection Volume: 2 | 00.00 |
| Injection Type:      | Unknown                | Channel: E          | CD_1  |
| Calibration Level:   |                        | Wavelength: n       | .a.   |
| Instrument Method:   | ASDV30mMIsocratic TEST | Bandwidth: n        | .a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor: 2  | .0    |
| Injection Date/Time: | 07/Sep/21 01:54        | Sample Weight: 1    | .0    |
|                      |                        |                     |       |

### Chromatogram



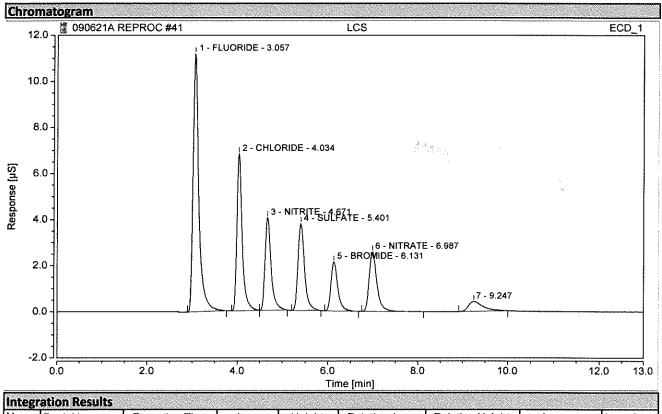
| Charles and the second second | gration Results |                                                                                                                 | Council of the Standard Council of Sta |        |               | International Control of the State of the St | ender fellener seiten erste hender sinderer bereinen er | an an an ann an an ann an an an an an an |
|-------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------|
| No.                           | Peak Name       | Retention Time                                                                                                  | Area                                   | Height | Relative Area | Relative Height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Amount                                                  | Amnt.Dev.                                |
|                               | in develo       | min                                                                                                             | µS*min                                 | μS     | %             | %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | mg/L                                                    | %                                        |
| 1.88                          | FLUORIDE        | 3.047                                                                                                           | 0.020                                  | 0.092  | 0.24          | 0.18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.0839                                                  | n.a.                                     |
| 2                             | CHLORIDE        | 4.034                                                                                                           | 4.900                                  | 33.548 | 59.67         | 65.65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 33.7353                                                 | n.a.                                     |
| 3                             | NITRITE         | 4.807                                                                                                           | 0.107                                  | 0.272  | 1.31          | 0.53                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.3494                                                  | n.a.                                     |
| 4                             | SULFATE         | 5.391                                                                                                           | 3.176                                  | 17.172 | 38.68         | 33.60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 29.7602                                                 | n.a.                                     |
| n.a.                          | BROMIDE         | n.a.                                                                                                            | n.a.                                   | n.a.   | n.a.          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n.a.                                                    | n.a.                                     |
| 5                             | NITRATE         | 6.997                                                                                                           | 0.009                                  | 0.020  | 0.11          | 0.04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.0807                                                  | n.a.                                     |
| n.a. े                        | PHOSPHATE       | n.a.                                                                                                            | n.a.                                   | n.a.   | n.a.          | n.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n.a.                                                    | n.a.                                     |
| Total                         |                 | the second se | 8.211                                  | 51.105 | 100.00        | 100.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |                                          |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | LCS                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 40                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 07                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 07/Sep/21 02:13        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



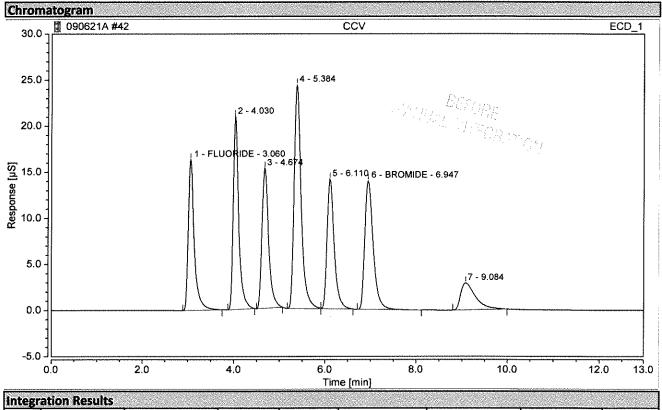
| No.    | Peak Name | Retention Time | Area          | Height | Relative Area | Relative Height | Amount | Amnt.Dev |
|--------|-----------|----------------|---------------|--------|---------------|-----------------|--------|----------|
|        |           | min j          | <u>µS*min</u> | μS     | %             | %               | mg/L   | %        |
| 1 8288 | FLUORIDE  | 3.057          | 1.656         | 11.211 | 33.67         | 36.19           | 3.5082 | -6.4480  |
| n.a.   | CHLORIDE  | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | NITRITE   | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | SULFATE   | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a. 🖄 | BROMIDE   | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | NITRATE   | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| n.a.   | PHOSPHATE | n.a.           | n.a.          | n.a.   | n.a.          | n.a.            | n.a.   | n.a.     |
| Total: |           |                | 1.656         | 11.211 | 33.67         | 36.19           |        |          |

|                      | Chromatogram and Res   | sults             |        |
|----------------------|------------------------|-------------------|--------|
| Injection Details    |                        |                   |        |
| Injection Name:      | LCS                    | Run Time (min):   | 12.98  |
| Vial Number:         | 40                     | Injection Volume: | 200.00 |
| Injection Type:      | Check Standard         | Channel:          | ECD_1  |
| Calibration Level:   | 07                     | Wavelength:       | n.a.   |
| Instrument Method:   | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |
| Processing Method:   | KAT01 2100             | Dilution Factor:  | 1.0    |
| Injection Date/Time: | 07/Sep/21 02:13        | Sample Weight:    | 1.0    |
|                      |                        |                   |        |



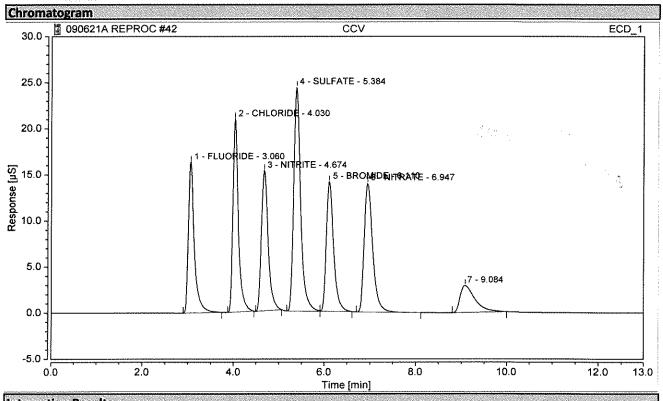
| No.   | Peak Name | Retention Time | Area   | Height | Relative Area | Relative Height | Amount | Amnt.Dev. |
|-------|-----------|----------------|--------|--------|---------------|-----------------|--------|-----------|
|       |           | min            | µS*min | μŠ     | %             | %               | mg/L   | %         |
| 1 🕸   | FLUORIDE  | 3.057          | 1.656  | 11.211 | 33.67         | 36.19           | 3.5082 | -6.4480   |
| 2 🖄   | CHLORIDE  | 4.034          | 0.947  | 6.822  | 19.25         | 22.02           | 3.3313 | -11.1650  |
| 3 🔊   | NITRITE   | 4.671          | 0.630  | 4.025  | 12.82         | 12.99           | 1.0267 | -9.9346   |
| 4 🌕   | SULFATE   | 5.401          | 0.631  | 3.770  | 12.84         | 12.17           | 2.9578 | -21.1259  |
| 5 383 | BROMIDE   | 6.131          | 0.374  | 2.137  | 7.60          | 6.90            | 3.0727 | -18.0604  |
| 6     | NITRATE   | 6.987          | 0.519  | 2.590  | 10.56         | 8.36            | 0.7192 | -14.8889  |
| n.a.  | PHOSPHATE | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.   | n.a.      |
| Total | •         |                | 4.757  | 30.555 | 96.74         | 98.62           |        |           |

| Chromatogram and Results |                        |                   |        |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |
| Vial Number:             | 41                     | Injection Volume: | 200.00 |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |
| Injection Date/Time:     | 07/Sep/21 02:32        | Sample Weight:    | 1.0    |  |  |  |
|                          |                        |                   |        |  |  |  |



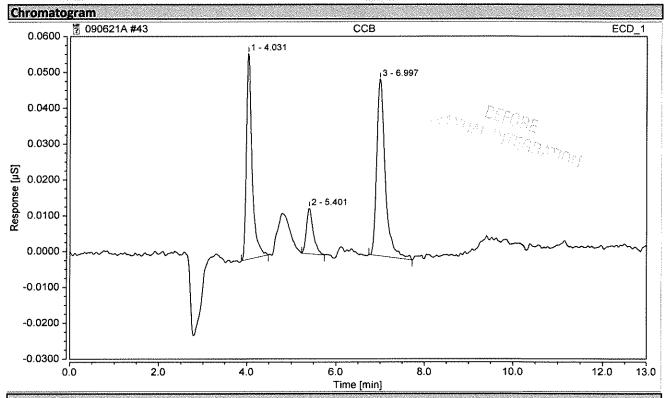
| No.         | Peak Name                             | Retention Time | Area   | Height | Relative Area | Relative Height | Amount      | Amnt.Dev. |
|-------------|---------------------------------------|----------------|--------|--------|---------------|-----------------|-------------|-----------|
|             | NAN                                   | min            | µS*min | μS     | %             | %               | mg/L        | %         |
| 1 33        | FLUORIDE                              | 3.060          | 2.477  | 16.360 | 12.94         | 15.17           | 5.2493      | 4.9863    |
| n.a.        | CHLORIDE                              | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.        | NITRITE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| n.a.        | SULFATE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| 6 🔆         | BROMIDE                               | 6.947          | 3.041  | 13.985 | 15.88         | 12.97           | 20.1044     | 0.5222    |
| n.a.        | NITRATE                               | n.a.           | n.a.   | n.a.   | n.a.          | n.a.            | n.a.        | n.a.      |
| <u>n.a.</u> | PHOSPHATE                             | n.a.           | n.a.   | n.a.   | <u>n.a.</u>   | n.a.            | <u>n.a.</u> | n.a.      |
| Total       | i i i i i i i i i i i i i i i i i i i |                | 5.518  | 30.344 | 28.82         | 28.15           |             |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | CCV                    | Run Time (min):   | 12.98  |  |  |  |  |  |
| Vial Number:             | 41                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Check Standard         | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       | 06                     | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMisocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 02:32        | Sample Weight:    | 1.0    |  |  |  |  |  |



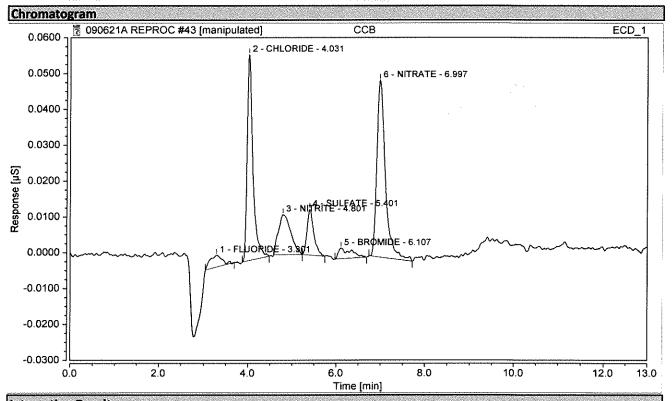
| A I _  |           |                | A      | 11.1.1.1.1.4 | Deleting Aven | Delething Determs | A       |           |
|--------|-----------|----------------|--------|--------------|---------------|-------------------|---------|-----------|
| No.    | Peak Name | Retention Time | Area   | Height       | Relative Area | Relative Height   | Amount  | Amnt.Dev. |
|        |           | min            | µS*min | μS           | %             | %                 | mg/L    | %         |
| 1 383  | FLUORIDE  | 3.060          | 2.477  | 16.360       | 12.94         | 15.17             | 5.2493  | 4.9863    |
| 2      | CHLORIDE  | 4.030          | 2.953  | 20.947       | 15.43         | 19.43             | 10.2030 | 2.0295    |
| 3 🖄    | NITRITE   | 4.674          | 2.586  | 15.212       | 13.51         | 14.11             | 4.2135  | 5.3386    |
| 4      | SULFATE   | 5.384          | 4.379  | 24.300       | 22.87         | 22.54             | 20.5176 | 2.5880    |
| 5 200  | BROMIDE   | 6.110          | 2.609  | 14.083       | 13.63         | 13.06             | 20.2456 | 1.2281    |
| 6      | NITRATE   | 6.947          | 3.041  | 13.985       | 15.88         | 12.97             | 4.0711  | 1.7784    |
| n.ä. 🤆 | PHOSPHATE | n.a.           | n.a.   | n.a.         | n.a.          | n.a.              | n.a.    | n.a.      |
| Total  |           |                | 18.046 | 104.887      | 94.26         | 97.29             |         |           |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |  |
| Injection Name:          | ССВ                    | Run Time (min):   | 12.99  |  |  |  |  |  |  |
| Vial Number:             | 42                     | Injection Volume: | 200.00 |  |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 02:51        | Sample Weight:    | 1.0    |  |  |  |  |  |  |
|                          |                        |                   |        |  |  |  |  |  |  |



| No.    | Peak Name | Retention Time<br>min | Area<br>µS*min | Height<br>µS | Relative Area<br>% | Relative Height % | Amount<br>mg/L | Amnt.Dev.<br>% |
|--------|-----------|-----------------------|----------------|--------------|--------------------|-------------------|----------------|----------------|
| n.a.   | FLUORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | CHLORIDE  | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | NITRITE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | SULFATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. 🔇 | BROMIDE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a. 🖄 | NITRATE   | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| n.a.   | PHOSPHATE | n.a.                  | n.a.           | n.a.         | n.a.               | n.a.              | n.a.           | n.a.           |
| Total  |           |                       | 0.000          | 0.000        | 0.00               | 0.00              |                |                |

| Chromatogram and Results |                        |                   |        |  |  |  |  |  |
|--------------------------|------------------------|-------------------|--------|--|--|--|--|--|
| Injection Details        |                        |                   |        |  |  |  |  |  |
| Injection Name:          | ССВ                    | Run Time (min):   | 12.99  |  |  |  |  |  |
| Vial Number:             | 42                     | Injection Volume: | 200.00 |  |  |  |  |  |
| Injection Type:          | Unknown                | Channel:          | ECD_1  |  |  |  |  |  |
| Calibration Level:       |                        | Wavelength:       | n.a.   |  |  |  |  |  |
| Instrument Method:       | ASDV30mMIsocratic TEST | Bandwidth:        | n.a.   |  |  |  |  |  |
| Processing Method:       | KAT01 2100             | Dilution Factor:  | 1.0    |  |  |  |  |  |
| Injection Date/Time:     | 07/Sep/21 02:51        | Sample Weight:    | 1.0    |  |  |  |  |  |



|       | gration Results |                |        |        | I malating Arres | Deletine Detete |        |           |
|-------|-----------------|----------------|--------|--------|------------------|-----------------|--------|-----------|
| No.   | Peak Name       | Retention Time | Area   | Height | Relative Area    | Relative Height | Amount | Amnt.Dev. |
|       |                 | min            | µS*min | μS     | %                | %               | mg/L   | %         |
| 1 388 | FLUORIDE        | 3.301          | 0.001  | 0.003  | 3.77             | 2.40            | 0.0022 | n.a.      |
| 2     | CHLORIDE        | 4.031          | 0.009  | 0.057  | 31.45            | 41.93           | 0.1195 | n.a.      |
| 3 🕬   | NITRITE         | 4.801          | 0.004  | 0.011  | 13.07            | 8.19            | 0.0058 | n.a.      |
| 4     | SULFATE         | 5.401          | 0.002  | 0.013  | 8.28             | 9.34            | 0.0107 | n.a.      |
| 5     | BROMIDE         | 6.107          | 0.001  | 0.003  | 3.59             | 2.14            | 0.0042 | n.a.      |
| 6     | NITRATE         | 6.997          | 0.011  | 0.049  | 39.83            | 36.00           | 0.0432 | n.a.      |
| n.a.  | PHOSPHATE       | n.a.           | n.a.   | n.a.   | n.a.             | n.a.            | n.a.   | n.a.      |
| Total | •               |                | 0.027  | 0.137  | 100.00           | 100.00          |        |           |

### **Calibration Batch Report**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 🔹 A STANDER STANDER STANDER AND AND AND AND AND AN AND AND AND AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sequence: 083121A CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I CONTRACTOR C                             | tion Volume: 200.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Sequence: 083121A CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1011 V 0/0/11C. 200.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 방법 같은 것 같은 것은 것은 것은 것은 것은 것은 것은 것은 것을 알려요. 것은 것은 것을 것을 것을 것을 것 같은 것을 것을 것 같은 것을 것을 것 같이 없다. 것을 것 같은 것을 것 같은 것을 것 같이 없다. 것을 것 같은 것 같은                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Instrument Method: ASDV5MLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UPS Open                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ator: Katahdin Analytical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The second                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | a contraction of the second |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 가 있다. 전화 가 있는 것은                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 사람이 가지 않는 것은                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Inj. Date / Time: 31-Aug-2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I / 17:56 Run 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Time: 12.993833                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Million and a second se | <ul> <li>And a second s<br/>Second second se</li></ul> | a se a constant de la                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Calibration Summary |           |               |         |                |               |               |            |
|---------------------|-----------|---------------|---------|----------------|---------------|---------------|------------|
| Peak Name           | Eval.Type | Cal.Type      | Points  | Offset<br>(C0) | Slope<br>(C1) | Curve<br>(C2) | Coeff.Det. |
| FLUORIDE            | Area      | Lin           | 6.000   | 0.000          | 0.526         | 0.000         | 99.7217    |
| CHLORIDE            | Area      | in, WithOffse | 7.000   | -0.008         | 0.325         | 0.000         | 99.9739    |
| NITRITE             | Area      | Lin           | 6.000   | 0.000          | 0.695         | 0.000         | 99.8794    |
| SULFATE             | Area      | Lin           | 7.000   | 0.000          | 0.242         | 0.000         | 99.9905    |
| BROMIDE             | Height    | Lin           | 6.000   | 0.000          | 0.734         | 0.000         | 99.9675    |
| NITRATE             | Area      | in, WithOffse | 7.000   | -0.012         | 0.826         | 0.000         | 99.9923    |
|                     |           | AVERAGE:      | Angel 1 | -0.0034        | 0.5579        | 0.0000        | 99.9209    |
|                     |           |               |         |                |               |               |            |

| Injection Name | Ret.Time | Area     | Height   | Amount   | 7.00 - | CHLORIDE | External | ECD_1   |
|----------------|----------|----------|----------|----------|--------|----------|----------|---------|
|                | min      | µS*min   | μS       | mg/L     | 6.00 - | µS*min   |          | $\star$ |
| CHLORIDE       | CHLORIDE | CHLORIDE | CHLORIDE | CHLORIDE | 0.00 - |          | /        |         |
| ···.           | ECD_1    | ECD_1    | ECD_1    | ECD_1    |        |          |          |         |
| CAL 1          | 4.034    | 0.0045   | 0.031    | 0.039    | 4.00 - |          |          |         |
| CAL 2          | 4.034    | 0.0261   | 0.175    | 0.106    | -      |          | $\star$  |         |
| CAL 3          | 4.034    | 0.2526   | 1.884    | 0.802    | 2.00 - | /        |          |         |
| CAL 4          | 4.034    | 0.6935   | 5.136    | 2.157    | 2.00   | ×        |          |         |
| CAL 5          | 4.034    | 1.4164   | 10.395   | 4.379    |        | X        |          | mg/L    |
| CAL 6          | 4.031    | 2.8556   | 20.827   | 8.802    | 0.00   | <u> </u> |          |         |
| CAL 7          | 4.034    | 5.8397   | 41.807   | 17.974   | 0.     | 0        | 12.5     | 25.0    |
| Average        | 4.033    |          |          |          |        |          |          |         |
| Rel. Std. Dev. | 0.031 %  |          |          |          |        |          |          |         |

| Injection Name                                                                                                  | Ret.Time<br>min | Area<br>uS*min | Height<br>µS        | Amount<br>mg/L    | 7.00   | NITRATE | External                              | ECD_1 |
|-----------------------------------------------------------------------------------------------------------------|-----------------|----------------|---------------------|-------------------|--------|---------|---------------------------------------|-------|
| NITRATE                                                                                                         | NITRATE         | NITRATE        | NITRATE             | NITRATE           | 6.00 - |         |                                       |       |
|                                                                                                                 | ECD_1           | ECD_1          | ECD_1               | ECD_1             |        |         | /                                     |       |
| CAL 1                                                                                                           | 7.011           | 0.0082         | 0.035               | 0.024             | 4.00 - |         |                                       |       |
| CAL 2                                                                                                           | 7.011           | 0.0265         | 0.127               | 0.047             |        |         | ×                                     |       |
| CAL 3                                                                                                           | 7.004           | 0.2564         | 1.301               | 0.325             | 2.00 - |         |                                       |       |
| CAL 4                                                                                                           | 6.994           | 0.7128         | 3.556               | 0.877             | 2.00 - | X       |                                       |       |
| CAL 5                                                                                                           | 6.981           | 1.4721         | 7.151               | 1.796             |        | X       |                                       | mg/L  |
| CAL 6                                                                                                           | 6.957           | 2.9835         | 13.912              | 3.626             | 0.00 - |         | · · · · · · · · · · · · · · · · · · · |       |
| CAL 7                                                                                                           | 6.921           | 6.0048         | 26.224              | 7.283             | 0.     | 00      | 5.00                                  | 9.00  |
| Average                                                                                                         | 6.982           |                |                     |                   |        |         |                                       |       |
| Rel. Std. Dev.                                                                                                  | 0.476 %         |                |                     |                   |        | •       |                                       |       |
| a da ser esta de la companya de la c |                 |                | 21-12-12-14<br>- 14 | e esta para en el |        |         |                                       |       |

| Injection Name | Ret.  | Time 👘 | Area    | Height  | Amount  | 6.00   | NITRITE | External | ECD_1 |
|----------------|-------|--------|---------|---------|---------|--------|---------|----------|-------|
|                | m     | in     | µS*min  | μŜ      | mg/L    | -      | µS*min  |          | ×     |
| NITRITE        | NIT   | RITE   | NITRITE | NITRITE | NITRITE |        |         |          |       |
|                | ECD_1 |        | ECD_1   | ECD_1   | ECD_1   | 4.00   |         | /        |       |
| CAL 1          | n.a.  |        | n.a.    | n.a.    | n.a.    |        |         |          |       |
| CAL 2          |       | 4.674  | 0.0221  | 0.114   | 0.032   |        |         | 7        |       |
| CAL 3          |       | 4.671  | 0.2418  | 1.565   | 0.348   | 2.00 - |         |          |       |
| CAL 4          | l     | 4.671  | 0.6591  | 4.201   | 0.948   |        | +       |          |       |

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

| 000000000000000000000000000000000000000 |         |        |        |       |      |      |      |
|-----------------------------------------|---------|--------|--------|-------|------|------|------|
| CAL 5                                   | 4.674   | 1.3297 | 8.181  | 1.914 |      |      | mg/L |
| CAL 6                                   | 4.677   | 2.5727 | 15.131 | 3.702 | 0.00 |      |      |
| CAL 7                                   | 4.684   | 4.8209 | 26.707 | 6.938 | 0.00 | 5.00 | 9.00 |
| Average                                 | 4.675   |        |        |       |      |      |      |
| Rel. Std. Dev.                          | 0.107 % |        |        |       |      |      |      |

| Injection Name | Ret.Time<br>min | Area<br>uS*min      | Height<br>µS         | Amount<br>mg/L | 1.20 PHOSPHATE<br>Unit? | ECD_1     |
|----------------|-----------------|---------------------|----------------------|----------------|-------------------------|-----------|
| PHOSPHATE      | n verstererer   | 김 소신들은 다양한 영화가 앉아요. | 에서 아파 아파 아파 나가 나가 봐. | EPHOSPHATE     | 1.00 -                  |           |
|                | ECD_1           | ECD_1               | ECD_1                | ECD_1          |                         |           |
| CAL 1          | n.a.            | n.a.                | n.a.                 | n.a.           |                         |           |
| CAL 2          | n.a.            | n.a.                | n.a.                 | n.a.           | 0.50 -                  |           |
| CAL 3          | n.a.            | n.a.                | n.a.                 | n.a.           |                         |           |
| CAL 4          | n.a.            | n.a.                | n.a.                 | n.a.           |                         |           |
| CAL 5          | n.a.            | n.a.                | n.a.                 | n.a.           |                         | mg/L      |
| CAL 6          | n.a.            | n.a.                | n.a.                 | n.a.           |                         |           |
| CAL 7          | n.a.            | n.a.                | n.a.                 | n.a.           | 0.0 5.0                 | 10.0 12.0 |
| Average        | e #DIV/0!       |                     |                      | 전 같은 것이 같다.    |                         |           |

#DIV/0! Rel. Std. Dev.

| Injection Name<br>BROMIDE | Ret.Time<br>min<br>BROMIDE | Area<br>µS*min<br>BROMIDE | Height<br>µS<br>BROMIDE | Amount<br>mg/L<br>BROMIDE | 35.0 -<br>30.0 - | μS            | External                                          | ECD_1 |
|---------------------------|----------------------------|---------------------------|-------------------------|---------------------------|------------------|---------------|---------------------------------------------------|-------|
|                           | ECD_1                      | ECD_1                     | ECD_1                   | ECD_1                     |                  |               |                                                   |       |
| CAL 1                     | n.a.                       | n.a.                      | n.a.                    | n.a.                      | 20.0 -           |               |                                                   |       |
| CAL 2                     | 6.144                      | 0.0185                    | 0.095                   | 0.130                     |                  |               | 1                                                 |       |
| CAL 3                     | 6.137                      | 0.2220                    | 1.261                   | 1.719                     | -<br>10.0 -      |               |                                                   |       |
| CAL 4                     | 6.134                      | 0.6055                    | 3.477                   | 4.740                     | 10.0-            | ×             | -                                                 |       |
| CAL 5                     | 6.127                      | 1.2577                    | 7.099                   | 9.677                     |                  | $\mathcal{A}$ |                                                   | mg/L  |
| CAL 6                     | 6.117                      | 2.5482                    | 14.093                  | 19.211                    | 0.0 -            | Ľ,            | <del>, , , , , , , , , , , , , , , , , , , </del> | myr   |
| CAL 7                     | 6.097                      | 5.2194                    | 27.705                  | 37.766                    | 0                | 0.0           | 20.0                                              | 45.0  |
| Average                   | 6.126                      |                           |                         |                           |                  |               |                                                   |       |
| Rel. Std. Dev.            | 0.275 %                    |                           |                         |                           |                  |               |                                                   |       |

| nt i | Std.         | Dev. | 0.275 |
|------|--------------|------|-------|
|      | <b>U</b> .U. |      | 0.2.1 |

| Injection Name | Ret.Time | Area    | Height  | Amount  | SULFATE External ECD_1 |
|----------------|----------|---------|---------|---------|------------------------|
|                | min      | µS*min  | μS      | mg/L    | 10.0 ] µS*min          |
| SULFATE        | SULFATE  | SULFATE | SULFATE | SULFATE |                        |
|                | ECD_1    | ECD_1   | ECD_1   | ECD_1   | 7.5                    |
| CAL 1          | 5.454    | 0.0090  | 0.048   | 0.037   |                        |
| CAL 2          | 5.454    | 0.0339  | 0.184   | 0.140   | 5.0-]                  |
| CAL 3          | 5.451    | 0.3766  | 2.165   | 1.559   |                        |
| CAL 4          | 5.447    | 1.0175  | 5.855   | 4.211   | 2.5 -] <del>/</del>    |
| CAL 5          | 5.441    | 2.0721  | 11.737  | 8.576   | 1 1 1 Z mo/ 1          |
| CAL 6          | 5.431    | 4.1763  | 23.325  | 17,285  |                        |
| CAL 7          | 5.411    | 8.6085  | 45.581  | 35.629  | 0.0 20.0 45            |
| Average        | 5.441    |         |         |         |                        |

0.290 % Rel. Std. Dev.

.

| Injection Name | Ret.Time | Area     | Height   | Amount   | 6.00 - | FLUORIDE Externa | al ECD_1 |
|----------------|----------|----------|----------|----------|--------|------------------|----------|
|                | min      | µS*min   | μS       | mg/L     | 0.00   | µS*min           |          |
| FLUORIDE       | FLUORIDE | FLUORIDE | FLUORIDE | FLUORIDE | -      |                  |          |
|                | ECD_1    | ECD_1    | ECD_1    | ECD_1    | 4.00 - |                  |          |
| CAL 1          | n.a.     | n.a.     | n.a.     | n.a.     |        |                  |          |

Logged on User: Katahdin Analytical Instrument: ICS-2100 Sequence: 083121A CAL

|       | Rel. Std. Dev. | 0.298 % | ter.   |        |       |           |     |      |      |
|-------|----------------|---------|--------|--------|-------|-----------|-----|------|------|
|       | Average        | 3.055   |        |        |       |           |     |      |      |
| CAL 7 |                | 3.071   | 4.6837 | 28.055 | 8.908 | 0.0       | 5.0 | 10.0 | 12.0 |
| CAL 6 |                | 3.061   | 2.4107 | 15.024 | 4.585 | 0.00      |     |      |      |
| CAL 5 |                | 3.054   | 1.2190 | 7.880  | 2.319 | 1 1 1 2 1 |     | mg/  |      |
| CAL 4 |                | 3.051   | 0.5987 | 3.998  | 1.139 | k         | 2   |      |      |
| CAL 3 |                | 3.047   | 0.2221 | 1.478  | 0.422 | 2.00 -    |     |      |      |
| CAL 2 |                | 3.047   | 0.0274 | 0.122  | 0.052 |           | +   |      |      |

CAL TEMPLATE/Calibration

### Anion Summary Report

| No.<br>CHLORIDE   | Name<br>CHLORIDE | Time<br>min<br>CHLORIDE<br>ECD_1 | Area<br>µS*min<br>CHLORIDE<br>ECD_1 | Rel.Area<br>%<br>CHLORIDE<br>ECD_1 | Height<br>µS<br>CHLORIDE<br>ECD_1 | Rel.Height<br>%<br>CHLORIDE<br>ECD_1 | Amount<br>mg/L<br>CHLORIDE<br>ECD_1 |
|-------------------|------------------|----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| 1                 | BLANK            | 4.034                            | 0.0093                              | 33.63                              | 0.06                              | 40.78                                | 0.0542                              |
| 2                 | CAL 1            | 4.034                            | 0.0045                              | 20.78                              | 0.03                              | 27.12                                | 0.0395                              |
| 3                 | CAL 2            | 4.034                            | 0.0261                              | 16.86                              | 0.18                              | 21.48                                | 0.1057                              |
| 4                 | CAL 3            | 4.034                            | 0.2526                              | 15.79                              | 1.88                              | 19.38                                | 0.8019                              |
| 5 <sup>3333</sup> | CAL 4            | 4.034                            | 0.6935                              | 15.72                              | 5.14                              | 19.34                                | 2.1572                              |
| 6                 | CAL 5            | 4.034                            | 1.4164                              | 15.53                              | 10.40                             | 19.46                                | 4.3791                              |
| 7                 | CAL 6            | 4.031                            | 2.8556                              | 15.46                              | 20.83                             | 19.89                                | 8.8024                              |
| 8                 | CAL 7            | 4.034                            | 5.8397                              | 15.63                              | 41.81                             | 20.79                                | 17.9740                             |
|                   | Sum:             | 32.267                           | 11.098                              | 149.401                            | 80.317                            | 188.233                              | 34.314                              |
|                   | Average:         | 4.033                            | 1.387                               | 18.675                             | 10.040                            | 23.529                               | 4.289                               |
|                   | Rel.Std.Dev:     | 0.029 %                          | 147.768 %                           | 33.736 %                           | 146.452 %                         | 31.596 %                             | 146.886 %                           |

| No.<br>NITRATE | Name         | Time<br>min<br>NITRATE<br>ECD_1 | Area<br>µS*min<br>NITRATE<br>ECD_1 | Rel.Area<br>%<br>NITRATE<br>ECD_1 | Height<br>µS<br>NITRATE<br>ECD_1 | Rel.Height<br>%<br>NITRATE<br>ECD_1 | Amount<br>mg/L<br>NITRATE<br>ECD_1 |
|----------------|--------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1              | BLANK        | 7.014                           | 0.0120                             | 43.23                             | 0.06                             | 38.01                               | 0.0290                             |
| 2              | CAL 1        | 7.011                           | 0.0082                             | 37.58                             | 0.04                             | 30.91                               | 0.0244                             |
| 3              | CAL 2        | 7.011                           | 0.0265                             | 17.16                             | 0.13                             | 15.55                               | 0.0466                             |
| 4              | CAL 3        | 7.004                           | 0.2564                             | 16.03                             | 1.30                             | 13.38                               | 0.3249                             |
| 5              | CAL 4        | 6.994                           | 0.7128                             | 16.16                             | 3.56                             | 13.39                               | 0.8773                             |
| 6              | CAL 5        | 6.981                           | 1.4721                             | 16.14                             | 7.15                             | 13.39                               | 1.7963                             |
| 7              | CAL 6        | 6.957                           | 2.9835                             | 16.15                             | 13.91                            | 13.29                               | 3.6258                             |
| 8              | CAL 7        | 6.921                           | 6.0048                             | 16.07                             | 26.22                            | 13.04                               | 7.2829                             |
|                | Sum:         | 55.891                          | 11.476                             | 178.516                           | 52.363                           | 150.945                             | 14.007                             |
|                | Average:     | 6.986                           | 1.435                              | 22.314                            | 6.545                            | 18.868                              | 1.751                              |
| 1              | Rel.Std.Dev: | 0.469 %                         | 147.259 %                          | 50.513 %                          | 141.917 %                        | 52.146 %                            | 146.040 %                          |

| No.<br>NITRITE    | Name<br>NITRITE | Time<br>min<br>NITRITE<br>ECD_1 | Area<br>µS*min<br>NITRITE<br>ECD_1 | Rel.Area<br>%<br>NITRITE<br>ECD_1 | Height<br>µS<br>NITRITE<br>ECD_1 | Rel.Height<br>%<br>NITRITE<br>ECD_1 | Amount<br>mg/L<br>NITRITE<br>ECD_1 |
|-------------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1                 | BLANK           | п.а.                            | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 2                 | CAL 1           | n.a.                            | п.а.                               | े <b>n.a</b> .                    | n.a. 🔅                           | n.a.                                | n.a.                               |
| 56 <b>3</b> - 667 | CAL 2           | 4.674                           | 0.0221                             | 14.33                             | 0.11                             | 13.90                               | 0.0319                             |
| 4                 | CAL 3           | 4.671                           | 0.2418                             | 15.12                             | 1.56                             | 16.09                               | 0.3479                             |
| 5                 | CAL 4           | 4.671                           | 0.6591                             | 14.94                             | 4.20                             | 15.82                               | 0.9485                             |
| 6 6               | CAL 5           | 4.674                           | 1.3297                             | 14.58                             | 8.18                             | 15.32                               | 1.9136                             |
| 7                 | CAL 6           | 4.677                           | 2.5727                             | 13.93                             | 15.13                            | 14.45                               | 3.7023                             |
| 8                 | CAL 7           | 4.684                           | 4.8209                             | 12.90                             | 26.71                            | 13.28                               | 6.9377                             |
|                   | Sum:            | 28.050                          | 9.646                              | 85.793                            | 55.897                           | 88.851                              | 13.882                             |
|                   | Average:        | 4.675                           | 1.608                              | 14.299                            | 9.316                            | 14.809                              | 2.314                              |
|                   | Rel.Std.Dev:    | 0.107 %                         | 113.378 %                          | 5.629 %                           | 108.245 %                        | 7.514 %                             | 113.378 %                          |

|           | Name      | Time<br>min        | Area<br>µS*min     | Rel.Area<br>%      | Height<br>µS       | Rel.Height<br>%    | Amount<br>mg/L     |
|-----------|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| PHOSPHATE | PHOSPHATE | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 | PHOSPHATE<br>ECD_1 |
| 1         | BLANK     | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               |
| 2         | CAL 1     | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               | n.a.               |

|   | Rel.Std.Dev: | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
|---|--------------|---------|---------|---------|---------|---------|---------|
|   | Average:     | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
|   | Sum:         | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   |
| 8 | CAL 7        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |
| 7 | CAL 6        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |
| 6 | CAL 5        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |
| 5 | CAL 4        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |
| 4 | CAL 3        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |
| 3 | CAL 2        | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    | n.a.    |

| No.<br>BROMIDE | Name<br>BROMIDE | Time<br>min<br>BROMIDE<br>ECD_1 | Area<br>µS*min<br>BROMIDE<br>ECD_1 | Rel.Area<br>%<br>BROMIDE<br>ECD_1 | Height<br>µS<br>BROMIDE<br>ECD_1 | Rel.Height<br>%<br>BROMIDE<br>ECD_1 | Amount<br>mg/L<br>BROMIDE<br>ECD_1 |
|----------------|-----------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1              | BLANK           | n.a.                            | n.a.                               | n.a.                              | n.a.                             | n.a.                                | n.a.                               |
| 2              | CAL 1           | n.a.                            | n.a.                               | <sup>ം</sup> n.a.                 | n.a.                             | n.a.                                | n.a.                               |
| 3              | CAL 2           | 6.144                           | 0.0185                             | 11.99                             | 0.10                             | 11.67                               | 0.1298                             |
| 4              | CAL 3           | 6.137                           | 0.2220                             | 13.88                             | 1.26                             | 12.97                               | 1.7191                             |
| 5              | CAL 4           | 6.134                           | 0.6055                             | 13.72                             | 3.48                             | 13.09                               | 4.7398                             |
| 6              | CAL 5           | 6.127                           | 1.2577                             | 13.79                             | 7.10                             | 13.29                               | 9.6766                             |
| 7              | CAL 6           | 6.117                           | 2.5482                             | 13.80                             | 14.09                            | 13.46                               | 19.2109                            |
| 8              | CAL 7           | 6.097                           | 5.2194                             | 13.97                             | 27.70                            | 13.78                               | 37.7657                            |
|                | Sum:            | 36.756                          | 9.871                              | 81.149                            | 53.730                           | 78.247                              | 73.242                             |
|                | Average:        | 6.126                           | 1.645                              | 13.525                            | 8.955                            | 13.041                              | 12.207                             |
|                | Rel.Std.Dev:    | 0.275 %                         | 120.014 %                          | 5.597 %                           | 117.024 %                        | 5.609 %                             | 117.024 %                          |

| No.<br>SULFATE      | Name<br>SULFATE               | Time<br>min<br>SULFATE<br>ECD_1 | Area<br>µS*min<br>SULFATE<br>ECD_1 | Rel.Area<br>%<br>SULFATE<br>ECD_1 | Height<br>µS<br>SULFATE<br>ECD_1 | Rel.Height<br>%<br>SULFATE<br>ECD_1 | Amount<br>mg/L<br>SULFATE<br>ECD_1 |
|---------------------|-------------------------------|---------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 1                   | BLANK                         | 5.454                           | 0.0064                             | 23.14                             | 0.03                             | 21.21                               | 0.0265                             |
| 2                   | CAL 1                         | 5.454                           | 0.0090                             | 41.65                             | 0.05                             | 41.97                               | 0.0374                             |
| 3                   | CAL 2                         | 5.454                           | 0.0339                             | 21.96                             | 0.18                             | 22.48                               | 0.1405                             |
| 000 <b>4</b> (2003) | CAL 3 Contraction Contraction | 5.451                           | 0.3766                             | 23.55                             | 2.17                             | 22.26                               | 1.5586                             |
| - 66 <b>5</b> - 666 | CAL 4                         | 5.447                           | 1.0175                             | 23.06                             | 5.85                             | 22.05                               | 4.2114                             |
| 6                   | CAL 5                         | 5.441                           | 2.0721                             | 22.72                             | 11.74                            | 21.97                               | 8.5760                             |
| 7                   | CAL 6                         | 5.431                           | 4.1763                             | 22.61                             | 23.32                            | 22.27                               | 17.2851                            |
| 8                   | CAL 7                         | 5.411                           | 8.6085                             | 23.04                             | 45.58                            | 22.66                               | 35.6294                            |
|                     | Sum:                          | 43.541                          | 16.300                             | 201.724                           | 88.926                           | 196.883                             | 67.465                             |
|                     | Average:                      | 5.443                           | 2.038                              | 25.216                            | 11.116                           | 24.610                              | 8.433                              |
|                     | Rel.Std.Dev:                  | 0.281 %                         | 148.176 %                          | 26.393 %                          | 144.660 %                        | 28.557 %                            | 148.176 %                          |
| 1999 - Arian        |                               |                                 | 90 - C                             |                                   |                                  |                                     |                                    |

| No.<br>FLUORIDE     | Name<br>FLUORIDE | Time<br>min<br>FLUORIDE<br>ECD_1 | Area<br>µS*min<br>FLUORIDE<br>ECD_1 | Rel.Area<br>%<br>FLUORIDE<br>ECD_1 | Height<br>µS<br>FLUORIDE<br>ECD_1 | Rel.Height<br>%<br>FLUORIDE<br>ECD_1 | Amount<br>mg/L<br>FLUORIDE<br>ECD_1 |
|---------------------|------------------|----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|-------------------------------------|
| - 98 <b>4</b> - 995 | BLANK            | n.a.                             | n.a.                                | n.a.                               | n.a.                              | n.a.                                 | n.a.                                |
| 2                   | CAL 1            | n.a.                             | n.a.                                | ก.a.                               | n.a.                              | n.a.                                 | n.a.                                |
| 3                   | CAL 2            | 3.047                            | 0.0274                              | 17.71                              | 0.12                              | 14.92                                | 0.0521                              |
| 4                   | CAL 3            | 3.047                            | 0.2221                              | 13.89                              | 1.48                              | 15.19                                | 0.4224                              |
| 5                   | CAL 4            | 3.051                            | 0.5987                              | 13.57                              | 4.00                              | 15.05                                | 1.1388                              |
| 6                   | CAL 5            | 3.054                            | 1.2190                              | 13.36                              | 7.88                              | 14.75                                | 2.3186                              |
| 7.5                 | CAL 6            | 3.061                            | 2.4107                              | 13.05                              | 15.02                             | 14.35                                | 4.5853                              |
| 8                   | CAL 7            | 3.071                            | 4.6837                              | 12.54                              | 28.06                             | 13.95                                | 8.9084                              |
|                     | Sum:             | 18.330                           | 9.162                               | 84.119                             | 56.557                            | 88.215                               | 17.426                              |
|                     | Average:         | 3.055                            | 1.527                               | 14.020                             | 9.426                             | 14.702                               | 2.904                               |
|                     | Rel.Std.Dev:     | 0.298 %                          | 115.879 %                           | 13.301 %                           | 112.271 %                         | 3.199 %                              | 115.879 %                           |

WET CHEMISTRY BATCH REPORT Aug 23 2021, 01:13 pm Batch: WG304649 Run ID 1: K575058 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Date Analyzed: 23-AUG-21

Analyst Initials: JL

Prep Chemist: JL

Prep Date: 18-AUG-21 Prep Method: SM 5210B

| Sample                     | Samp Tvpe                             | Tvpe Method                                                                                                | Tnitial Amr. | Tritial Amr. Final Amr. | 107<br>107 | 4 [ 129 | the Decision | (°) | 104 | 2004   |         | 6         |                                                                                                                      |
|----------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------|--------------|-------------------------|------------|---------|--------------|-----|-----|--------|---------|-----------|----------------------------------------------------------------------------------------------------------------------|
| +<br>+<br>+<br>+<br>+<br>+ | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 4<br>6<br>8<br>8<br>9<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 |              |                         |            |         |              |     |     | TIME - | HQJ (DM | רקא       | %KeC                                                                                                                 |
| SO5414-1                   | SAMP                                  | SM 5210B                                                                                                   | .0.075000mL  | 300.00mL                | 4000       | -2.26   | 9000 mg/L    | NA  | 17  | 930    | 8000    |           | 8<br>8<br>8<br>7<br>1<br>1<br>1<br>1<br>1<br>4<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 |
| SO5421-1                   | SAMP                                  | SM 5210B                                                                                                   | ·17.500mL    | 300.00mL                | 17         | .2.24   | 38. mg/L     | NA  | ~   | 4.0    | 14 C    |           |                                                                                                                      |
| SO5426-1                   | SAMP                                  | SM 5210B                                                                                                   | · 1.5000mL   | 300.00ML                | 200        | .2.2    | 440 mg/L     | NA  | 2   | 47.    | 400     |           |                                                                                                                      |
| SO5439-1                   | SAMP                                  | SM 5210B                                                                                                   | ·13.333mL    | 300.00mL                | 22         | .3.13   | 70. mg/L     | NA  | 2   | 2      | 45      |           |                                                                                                                      |
| SO5451-1                   | SAMP                                  | SM 5210B                                                                                                   | • 0.37500mL  | 300.00mL                | 800        | .3.585  | 2900 mg/L    | NA  | ~   | 190    | 1600    |           |                                                                                                                      |
| SO5463-1                   | SAMP                                  | SM 5210B                                                                                                   | -37.500mL    | 300.00mL                | 8          | .2.67   | 21. mg/L     | NA  | N   | 6      | 16.     |           |                                                                                                                      |
| SO5463-2                   | SAMP                                  | SM 5210B                                                                                                   | · 46.250mL   | 300.00mL                | 6.5        | 2.015   | 13. mg/L     | NA  | 2   | 1.5    | 13.     |           |                                                                                                                      |
| WG304649-1 MBLANK          | MELANK                                | SM 5210B                                                                                                   | .300.00mL    | 300.00mL                | г          | .11     | UL.O mg/L    | NA  | 2   | 0.23   | 2.0     |           |                                                                                                                      |
| WG304649-2 LCS             | LCS                                   | SM 5210B                                                                                                   | 6.0000mL     | 300.00mL                | 50         | 4 099   | 200 mg/L     | NA  | 0   | 12.    | 100     |           | 104                                                                                                                  |
| WG304649-5 MS              | MS                                    | SM 5210B                                                                                                   | · 1.0000mL   | 300.00mL                | 300        | 3.21    | 960 mg/L     | NA  | 0   | 70.    | 600     |           |                                                                                                                      |
| WG304649-6 MSD             | MSD                                   | SM 5210B                                                                                                   | . 1.0000mL   | 300.00mL                | 300        | .3.13   | 940 mg/L     | NA  | ы   | 70.    | 600     | <b>(N</b> | 82.                                                                                                                  |
| Comments:                  |                                       |                                                                                                            |              |                         |            |         |              |     |     |        |         |           |                                                                                                                      |
|                            |                                       |                                                                                                            |              |                         |            |         |              |     |     |        |         |           |                                                                                                                      |
| 20E163-3                   |                                       | Anione women of a fill                                                                                     |              |                         |            |         |              |     |     |        |         |           |                                                                                                                      |

| SO5463-1   | Anions report Cl & SO4.         |
|------------|---------------------------------|
| SO5463-2   | MS/MSD, Anions report Cl & SO4. |
| WG304649~1 | SO5414-1                        |
| WG304649-2 | SO5414-1                        |
| WG304649-5 | SO5463-2                        |
| WG304649-6 | SO5463-2                        |
|            |                                 |

Katahdin Analytical Services 5000322

Date: 8/23/24

감

Date: 803 D. Accepted by:\_

R575058 WG304649

1

## KATAHDIN ANALYTICAL SERVICES, INC. Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5

CBOD5

Data Entry By:

BOD5,mg/L==(DO consumed- Seed Correction Factor)\* Total Volume in mL /Sample Volume in mL DO consumed = Initial DO - Final DO

Total Volume = 300 mL

Volume of seed added to each sample including (LCSs and MS) in mL =

JL

X

|                | Seed         | Initial  | Final    | Cons.        |                           | 8    | BIANK: 0842 1100 |
|----------------|--------------|----------|----------|--------------|---------------------------|------|------------------|
| Sample 1D      | Volume<br>mL | DO<br>D1 | DO<br>D2 | DO<br>D1-D2  | Seed Correction<br>Factor | ~    |                  |
| Blank 1        | 0            | 7.66     | 7.89     | -0.23        | N/A                       | No   | LCS: 0849 1167   |
| Blank 2        | 0            | 7.65     | 7.54     | 0.11         | N/A                       | Yes  |                  |
| Blank 3        | 0            | 7.65     | 7.53     | 0.12         | N/A                       | Yes  | 1                |
| Seed Control 1 | 1            | 7.71     | 6.30     | 1.41         | 1.41                      | No   |                  |
| Seed Control 2 | 2            | 7.71     | 5.15     | 2.56         | 1.28                      | 1.28 | 1                |
| Seed Control 3 | 4            | 7.61     | 2.59     | 5.02         | 1.26                      | 1.26 |                  |
| Seed Control 4 | 6            | 7.95     | 1.30     | 6.65         | 1.11                      | 1.11 | 1                |
|                |              |          | Mean See | ed Correctio | n Factor (SCF):           | 1.21 | ]                |

|                 |        | LCS Recovery Calc | ulations              |            |
|-----------------|--------|-------------------|-----------------------|------------|
| GGA Added (mL): | 6      |                   | LCS True Value (mg/L  | ): 198     |
|                 | Calc   | %                 | Recovery Acceptance L | imits (%): |
| LCS ID          | mg/L   | Recovery          | 84.6 TO               | 115.4      |
| LCS 1           | 197.28 | 99.6              | LCS Within Criteria ? | Yes        |
| LCS 2           | 206.28 | 104.2             | LCS Within Criteria ? | Yes        |
| LCS 3           | 211.28 | 106.7             | LCS Within Criteria ? | Yes        |
| Mean            | 204.94 | 103.5             | LCS Within Criteria ? | Yes        |

| Spike Recovery            |                          |                         | y Calculations<br>Seed Corrected |                          | otal mg Spike)             |                          |
|---------------------------|--------------------------|-------------------------|----------------------------------|--------------------------|----------------------------|--------------------------|
| Katahdin<br>Sample Number | Sample<br>Volume<br>(mL) | Sample<br>BOD<br>(mg/L) | Spk. Sample<br>BOD<br>(mg/L)     | mL GGA<br>Spike<br>Added | MS<br>True Value<br>(mg/L) | Spike<br>Recovery<br>(%) |
| 5414-1                    | 0.05                     | 9445.00                 | 25893.33                         | 6                        | 23760                      | 69.2                     |
| 5463-2                    | 1.00                     | 19.1                    | 961.67                           | 6                        | 1188                       | 79.3                     |
| 5463-2                    | 1.00                     | 19.1                    | 937.67                           | 6                        | 1188                       | 77.3                     |

| All Data From This | Batch Must Be Qualified A | s Follows: |
|--------------------|---------------------------|------------|
| LCS 1              |                           |            |
| LCS 2              |                           |            |
| LCS 3              |                           |            |
| Blank I            | D7                        |            |
| Blank 2            |                           |            |

### KATAHDIN ANALYTICAL SERVICES, INC. Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5

X

JL

CBOD5

Data Entry By:

Sample Analysis Initial DO Sample **Final DO DO** Cons. Corrected Calc. Volume BOD mg/L mg/L mg/L DO cons. DO consumed Adjusted Sample ID (D1) mg/L mL (D2) (D1-D2) (D1-D2-SCF) in Criteria? POL 2.57 6.000 7.73 3.95 197.28 100.0LCS 1 5.16Yes 2.29 LCS 2 6.000 7.63 5.34 4.13 206.28 Yes 100.0 6.000LCS 3 7.82 2.38 5.44 4.23 211.28 Yes 100.0 Mean LCS Result 6.000 7.727 2.413 5.313 4.099 204.944 100.0 Yes 7.74 05.00 000 5414-1 0.050 . OT 4.74 3.00 1.79 10713.33 Yes 12000.0 7.70 3.76 3.94 0.100 2.73 8176.67 Yes 08291 1110 6000.0 7.67 0.250 <1 6.67 5.46 6546.67 No 2400.0 0.500 7.98 6.98 3459.33 <15.77 No 1200.0 1.000 7.67 <1 5.46 6.67 1636.67 No 600.0 7.56 2.03 MS 0.050 5.53 4.32 25893.33 Yes 12000.0 DUP 0.500 7.57 6.57 5.36 3213.33 <1 No 1200.0 5421 5.000 7.69 6.19 1.50 0.29 17.13 No 120.0 7.56 2.11 0.90 26.87 MM 1113 10.000 , 17.S 5.45 2.24 Yes 60.0 25.000 7.50 2.71 4.79 3.58 42.91 Yes 24.0 50.000 7.56 <1 6.56 5.35 32.07 No 12.0 100.000 7.15 <1 6.15 4.94 14.81 No 6.0 300.000 9.44 <1 8.44 7.237.23 No 2.0 1852 5426 IIIIO 1.000 ,1.5 8.12 5.13 2.991.78 2.2 532.67 Yes 600.0 2.000 7.57 3.74 3.83 2.62 392.33 Yes 300.0 5.000 7.50  $\leq 1$ 6.50 5.29 317.13 120.0 No 10.000 7.81 <16.81 5.60 167.87 No 60.0 25.000 7.24 <1 6.24 5.03 60.31 24.0 No 1.000 7.71 6.44 1.27 5439 0.06 16.67 No 600.0 632 7.89 1.76 0.55 1115 2.0006.13 81.83 No 300.0 5.000 13322 8.06 5.75 2.31 1.10, 3.13 65.73 120.0 Yes 4.47 3.54 2.33 8.01 69.77 10.000 60.0 Yes 25.000 8.18 1.01 7.175.96 71.47 Yes 24.0 50.000 8.34 <1 7.34 6.13 36.75 No 12.0 100.000 8.68 <1 7.68 6.47 19.40 No 6.0 5451 0.050 7.44 6.34 1.10 -0.11 -686.67 No 12000.0 0.100 7.45 305 1123 5.59 1.86 0.65 1936.67 No 6000.0 0.250 .375 7.58 2.23 3.585 4.14 3.44 2670.67 Yes 2400.0 7.74 0.500 1.59 6.15 4.94 2961.33 1200.0 Yes 1.000 7.56 6.56 5.35 <1 1603.67 600.0 No 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! #DIV/0! No 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! -1.21 0.00 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0!

### KATAHDIN ANALYTICAL SERVICES, INC. Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

CBOD5

TBOD5

\_\_\_\_\_l

JL

х

**Data Entry By:** 

Sample Analysis Initial DO Sample **Final DO DO Cons.** Corrected Calc. Volume mg/L mg/L mg/L DO cons. BOD DO consumed Adjusted (D1) (D2)(D1-D2) (D1-D2-SCF) mg/L Sample ID mL in Criteria? PQL 1.000 7.32 5436-1 6.24 1.08 -0.13 -40.33 600.0 No 63 112 2.000 7.38 1.22 0.01 0.83 6.16 No 300.0 KH1 5.000 7.45 0.35 20.73 5.89 1.56 120.0 No 10.000 7.35 5.70 1.65 0.44 13.07 No 60.0 25.000.31.5 2.07 Yes 7.37 4.45 2.92 1.71 20.47 24.0 50.000 7.38 2.54 4.84 3.63 21.75 Yes 12.0 6.84 5.84 13.88 100.000 <1 4.63 No 6.0 300.000 4.78 <1 3.78 2.57 2.57 No 2.0 5463-2 1.000 7.51 6.25 1.26 0.05 13.67 No 600.0 7.55 0.26 2.000 6.08 1.47 38.33 300.0 1650 132 No 5.000 7.34 5.74 1.60 0.39 23.13 No 120.0 7.40 5.04 2.36 34.37 46.25 10.000 1.15 2.015 Yes 60.0 7.25 2.89 4.36 20.11 24.0 25.000 1.68 Yes 7.22 3.30 50.000 3.92 2.0912.51 12.0 Yes 6.70 4.35 3.14 100.000 2.35 9.41 Yes 6.0 300.000 4.64 3.64 2.43 2.43 2.0 <1 No 3.21 706 MS 11391 1.000 7.56 3.14 4.42 961.67 Yes 600.0 MSD 1.000 7.53 3.19 4.34 3.13 937.67 Yes 600.0 -1.21 0.00 #DIV/0! TUT 1140 No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 #DIV/0! -1.21 No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21#DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! -1.21 0.00 #DIV/0! No #DIV/0! 0.00 #DIV/0! -1.21 No #DIV/0! 0.00 -1.21 #DIV/0! #DIV/0! No 0.00 #DIV/0! -1.21 No #DIV/0! -1.21 0.00 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0! 0.00 -1.21 #DIV/0! No #DIV/0!

| Other optication         Testing of the calendaries of th       |                                         |                | KATAHD                           | KATAHDIN ANALYTICAL SERVI        | TICAL SEP                            | RVICES - B                                        | <b>IOCHEMI</b>     | <b>CES - BIOCHEMICAL OXYGEN DEMAND</b> | EN DEMA               |               | カガス                                    | うかったののの        |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------|----------------------------------|----------------------------------|--------------------------------------|---------------------------------------------------|--------------------|----------------------------------------|-----------------------|---------------|----------------------------------------|----------------|-----------------|
| 1         FOL:         2.0 mg/L         The Value         Lot (1)         Actual Value         Actual Value </td <td>Check the appropri</td> <td>riate Test and</td> <td>Method:</td> <td>If CBOD is chee<br/>been added to</td> <td>cked below, this<br/>each bottle belo</td> <td>indicates that 0.1<br/>w.</td> <td>6g of nitrificatio</td> <td>n inhibitor has</td> <td>pH Meter C</td> <td>alibration</td> <td>Probe ID:</td> <td></td> <td></td>                                                                                                                                                                                                                                                                                         | Check the appropri                      | riate Test and | Method:                          | If CBOD is chee<br>been added to | cked below, this<br>each bottle belo | indicates that 0.1<br>w.                          | 6g of nitrificatio | n inhibitor has                        | pH Meter C            | alibration    | Probe ID:                              |                |                 |
| Poll:         Poll:         2.0 mg/t         4.01         4.01           (56) Properation:         Seed Used Source ID and Amount:         7.00             0.15g Guose ID:         LAMPCA:         1 mi.         10.01             0.15g Guose ID:         LAMPCA:         1 mi.         10.01             0.15g Guose ID:         LAMPCA:         LAMPCA:         Tim.         10.01             0.15g Guose ID:         LAMPCA:         LAMPCA:         Tim.         10.01               0.15g Guose ID:         Sec. /         In         Do Mereire ID: LAMPCA:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Total BOD:                              | SM5210B        | EPA 405.1                        |                                  |                                      |                                                   | g/L                |                                        | True Value            | Lot ID        | Actual Value                           | Accept? ± 0.05 |                 |
| GGA Preparation:         Seed Used Source ID and Amount:         7.00         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.001         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011         1.011 <td>Carbonaceous B</td> <td>oD:</td> <td>SM5210B</td> <td></td> <td></td> <td></td> <td>g/L</td> <td></td> <td>4.01</td> <td></td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Carbonaceous B                          | oD:            | SM5210B                          |                                  |                                      |                                                   | g/L                |                                        | 4.01                  |               |                                        |                |                 |
| 0.15g Gucore ID:         AWPCA:         1 mL         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001         1001 <td>Glutamic Acid Std (C</td> <td>BGA) ID: GGA</td> <td>ORISAI</td> <td>GGA Prepara</td> <td>tion:</td> <td>Seed Used So</td> <td>urce ID and A</td> <td>mount:</td> <td>7.00</td> <td></td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Glutamic Acid Std (C                    | BGA) ID: GGA   | ORISAI                           | GGA Prepara                      | tion:                                | Seed Used So                                      | urce ID and A      | mount:                                 | 7.00                  |               |                                        |                |                 |
| KULDOT         SE:         Int.         Dometer ID:         CTORE         Dometer ID:         CUCODA           0150 Guamer Acid ID:         NueSo, ID:         NueSo, ID:         NueSo, ID:         Catron ID:         Catro ID:         Catro ID:         Catr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nitirification Inhibitor                | Ü.             |                                  | 0.15g Glucos                     | e ID:                                | LAWPCA:                                           |                    | 1 mL                                   | 10.01                 |               |                                        |                |                 |
| OIS G OLLATING, Acad D.<br>Submic Acad D.<br>Seren Indicator ID.         KI Paper ID. (J4C) (J2C) (J | Phosphate Bffr Soln.                    | DEM : al .     | 297                              |                                  | 52                                   | ssd: /                                            |                    | 1 mL 🗸                                 | DO Meter ID:          | B27869        | DO Probe ID:                           | C & MOIS       | Cui             |
| UTTO       OUCOUND       Starch Indicator ID:       Carboy ID: T       Ison H,SO, ID         NutrExt       Polassium lodide Solin D:       Page (IDs. W.S., T1, ID), II       Inot 1, ID), II         Add 21D (N2)       Base / ID (B1)       Base / ID (B1)       Base / ID (B1)       Inot 1, ID), II         Add 21D (N2)       Base / ID (B1)       Base / ID (B1)       Base / ID (B1)       Inot 1, ID), II         START       pH       pH       Add Base       CL       Base / ID (B1)       Inot 1, ID), II         START       pH       Add 21D (N2)       Base / ID (B1)       Inot 1, ID, II       Inot 1, ID / ID         START       pH       Add 2D (N2)       No       DD       Inot 1, ID / ID       Inot 1, ID         START       pH       Add Base       CL-       BOTTLE       VI       IN       DN       Inot 2, ID         START       pH       Add Base       CL-       BOTTLE       VI       ID       ID       ID       ID         VR       VI       DD       T. VI       DD       T. VI       DO       DO       ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | H <sub>14</sub> MgO <sub>11</sub> S ID: | 58/3           | ってい                              | 0.15 g Glutan                    | nic Acid ID:                         | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ID: |                    |                                        | KI Paper ID:          | 00            | pH Paper ID:                           | 1010225        |                 |
| alson IP S_JUVL TFS1         Possetur lodies Soln (D: partice, W,S,T,1,10);11           alson IP S_JUVL TFS1         Base TD (B);         Base TD (B);         Base TD (B);           and 2 ID (X);         part is transmitted in the image of the image                                                                                               | Ferric Chloride Soln.                   | JUNS :OI       | 1110<br>110                      | 550                              | いやりて                                 | Starch Indicato                                   | r D:               |                                        | Carboy ID: 니          |               | 1:50 H <sub>2</sub> SO <sub>4</sub> IE |                |                 |
| Aid 2 ID (A2);         Base 1 ID (B1);         Base 2 ID (B2);         Base 2 ID (B2);           B         Tit R         TH         TH         TH         DU         DU         DU         DU         DU         TH         TH <tht< th="">         TH         TH</tht<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Calcium Chloride Sc                     | JNS:GI .no     | してあり                             |                                  |                                      | Potassium lod                                     | de Soln. ID:       |                                        | Pipet IDs: V          | F             | 111                                    |                |                 |
| SITE         START         pH         pH         Additises         CL         BOTTLE         VOL         D.O.         D.O. <thd.o.< th="">         D.O.         D.O.         <th< td=""><td>Acid 1 ID (A1):</td><td></td><td>Acid 2 ID (A</td><td>2):</td><td></td><td>Base1 ID (B1)</td><td></td><td></td><td>Base 2 ID (B2</td><td>;;</td><td></td><td></td><td></td></th<></thd.o.<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Acid 1 ID (A1):                         |                | Acid 2 ID (A                     | 2):                              |                                      | Base1 ID (B1)                                     |                    |                                        | Base 2 ID (B2         | ;;            |                                        |                |                 |
| SITE         START         pH         pH         Acidibase         CL         BOTLE         VOL         DO.         DO.         EN         TIME         VI         DAY1         DAY3         DAY3 <thday3< th=""> <thday3< th=""> <thday3< td="" th<=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>SMPTEMP<br/>DAY1</td></thday3<></thday3<></thday3<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |                |                                  |                                  |                                      |                                                   |                    |                                        |                       |               |                                        |                | SMPTEMP<br>DAY1 |
| ID         TME         63-75         73-72         Used         YN         ID#         (m)         DM/1         DM/5         TME         N/           YA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SAMPLE                                  | SITE           | START                            | Hđ                               | Hd .                                 | Acid/Base                                         | сŗ-                | BOTTLE                                 | VOL                   | D.O.          | D.O.                                   | END            | 17-23 °C        |
| 0843         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0                                       | ٩              | TIME                             | 6.5 - 7.5?                       | 7.0-7.2?                             | Used                                              | X/N                | #0                                     | (ju)                  | DAY 1         | DAY 5                                  | TIME           | Y/N *           |
| H3     1002     7.65     7.54     01       68     45     201     7.95     1.53     03       44     171     5.15     11.05     11.05     04       44     171     5.15     0.4     01     01       44     174     17.11     5.15     0.4       44     174     17.15     5.15     0.4       91     74     17.15     5.15     0.4       91     175     2.17     1.107     05       91     21     2.1     1.107     2.1     0.7       176     5.1     0     2.14     1.107     2.1       177     5.17     1.07     2.14     1.107       178     5.13     0.7     1.11     1.11       179     5.14     1.1     1.11       171     1.1     1.11     1.11     1.11       171     0.1     1.1     1.11     1.11       171     0.1     1.1     1.11     1.11       171     0.1     1.1     1.11     1.11       171     0.1     1.1     1.11     1.11       171     0.1     1.1     1.1     1.11       171     0.1     <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Blank                                   |                | 6480                             |                                  |                                      |                                                   |                    | ۲<br>لا                                | {                     | 2.66          | 7.89                                   | 1100           |                 |
| 4H       201       7.45       7.65       7.53       0.6         68       45       275       1.71       6.30       110.5       0.4         40       41       7.11       5.15       0.4       2.1       0.4         41       47       7.11       5.15       0.4       2.1       0.4         41       47       7.61       2.54       0.5       0.5       0.5         51       52       3.74       7.61       3.57       10.7       0.5         51       52       3.4       7.61       3.57       10.7       0.5         51       52       53       3.57       10.7       1.1       10.7         51       51       51       51       53       53       0.5         8       6       1       1       1       1       1       1         60       51       1       1       1       1       1       1       1         8       6       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                                       |                | £                                |                                  |                                      |                                                   |                    | 100k                                   |                       | 7.65          | J.S.L                                  | 10             |                 |
| 68.45       0.40       200       1.71       6.30       1.63       1.03         40       40       214       7.41       3.57       04         14       74       213       7.41       3.57       05         15       51       214       7.41       3.57       107         16       55       214       7.41       2.54       05         17       55       214       7.42       2.57       107         17       55       214       7.43       2.57       107         16       55       214       7.43       2.57       107         17       25       1.43       7.70       2.74       110         17       26       1.73       2.74       110       11         17       26       1.74       1.75       2.74       11         17       26       1.74       1.75       2.74       11         17       20       1.75       2.74       1.1       1.1         17       20       1.74       2.76       2.11       1.1         17       20       1.75       2.75       2.75       1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | >                                       |                | 7                                |                                  |                                      |                                                   |                    | 707                                    |                       | 7.65          | 7.53                                   | 60             |                 |
| 40       213       7.01       5.15       04         47       47       7.3       7.41       3.54       05         47       7.3       7.41       3.54       05       05         64       7.41       7.73       3.57       107       05         75       55       7.41       7.73       3.57       107         75       54       7.44       3.74       7.73       3.57       107         75       51       864       7.82       3.57       107       05         76       51       7.4       7.70       3.74       1.11       1         76       7.4       7.70       3.74       1.11       1       1         77       0.4       1       1       7.70       3.74       1.11       1         76       1.1       1       7.70       3.74       1.11       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |                |                                  |                                  |                                      |                                                   |                    | Sec                                    |                       |               | <i>لہ</i> ، 30                         | 1103           |                 |
| H     2.13     7.61     3.59     05       HS     X2     7.95     1.35     05       RHA     21     21     1.75     2.51     107       RCHA     21     21     21     1.75     2.51     107       Si     51     21     21     1.17     2.51     107       Si     51     0     21     1.17     2.51     107       Roventine     864     0.5     1.14     2.14     1.17     2.8       Roventine     210     0     0.5     1.14     2.17     1.11       Cold     0     0     1     1.70     2.16     1.1       Mission     0     1     1     1.70     2.16     1.1       Mission     0     1     1     1.76     2.16     1.1       Mission     0     1     1     1.6     2.1     1.1       Mission     0     1     1     1.1     1.1       Mission     0     1 <td>c þ.</td> <td></td> <td>₹</td> <td></td> <td></td> <td></td> <td></td> <td>たろ</td> <td>τ.</td> <td>したて</td> <td>5.15</td> <td>04</td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | c þ.                                    |                | ₹                                |                                  |                                      |                                                   |                    | たろ                                     | τ.                    | したて           | 5.15                                   | 04             |                 |
| 18       ×2       7.95       1.35       1.05         51       51       213       1.05       3.57       107         51       51       214       7.73       3.57       107         51       51       864       7.73       3.57       108         51       51       864       5.83       3.35       03         61       864       5.84       1.05       3.35       03         7       61       864       5.83       3.35       03         8       61       8       1.1       1.1       1.1       1.1         03       01       864       .1       1.1       1.1       1.1         040       01       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | r                                       |                | <u> </u>                         |                                  |                                      |                                                   |                    | 616                                    |                       | しった           | a.59                                   | 05             |                 |
| Retent         B13         7173         3.57         1107           55         51         57         107         374         7123         3.36         38           51         51         8644         8644         7.65         7.14         4.714         111           87         60         7.65         7.70         8.74         1.67         3.36         38           87         61         7         61         7         7.70         8.74         1.1           9.65         7         7         7.70         8.74         1.1         1.1           11         1         7         7.70         8.74         1.1         1.1         1.1           11         1         1         1         1.70         8.71         1.1         1.1           11         1         1         1         1         1.70         8.71         1.1         1.1           11         1         1         1         1         1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1 </td <td>٩</td> <td></td> <td>8<br/>T</td> <td></td> <td></td> <td></td> <td></td> <td>ф<br/>х</td> <td></td> <td>1.9S</td> <td>130</td> <td>20</td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ٩                                       |                | 8<br>T                           |                                  |                                      |                                                   |                    | ф<br>х                                 |                       | 1.9S          | 130                                    | 20             |                 |
| 50       374       7.VS       8.29       68         Stretuni 0859       V       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SJ                                      |                | <u>8</u><br><u>1</u><br><u>8</u> |                                  |                                      |                                                   |                    | 616                                    |                       | ふいた           | a.57                                   | 201            |                 |
| Stretural 085A         J         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |                | ß                                |                                  |                                      |                                                   |                    | 510                                    |                       | 7.63          | <i><b>B</b>, 39</i>                    | 08             |                 |
| Stroneunil 0859     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     / <td></td> <td></td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td>861</td> <td></td> <td>68.4</td> <td>23R</td> <td>60</td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                         |                | 5                                |                                  |                                      |                                                   |                    | 861                                    |                       | 68.4          | 23R                                    | 60             |                 |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                         | andra          | W0859                            | ~                                |                                      |                                                   | 3                  | 90                                     | .05                   | ゴニイ           |                                        | 0111           |                 |
| OI     <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |                | 0000                             |                                  |                                      |                                                   | -                  | F<br>M                                 | • •                   | 7.70          | 3:10                                   | 11             |                 |
| OP     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H     H </td <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td>Alexe</td> <td>56.</td> <td>ANOI-L</td> <td>17</td> <td>- 11</td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |                | 0                                |                                  |                                      |                                                   |                    | Alexe                                  | 56.                   | ANOI-L        | 17                                     | - 11           |                 |
| MS     O4     1     7.67     <1     11       - DMP     05     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /     /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |                | 8                                |                                  |                                      |                                                   |                    | ५२२                                    | S                     | 1. <b>9</b> 8 | 7                                      | 11             |                 |
| MS     M904     I     I     IIA     ·05     7.56     8.03     II     7       -013     Revision 9 - 12/1/2018     05     1     1     1     1     -0     1     1     1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                         |                | ち                                |                                  |                                      |                                                   |                    | 2 Q Q                                  | -                     | 1.6J          | 12                                     | 11             |                 |
| -12MP   0'5   V       V   M1   -5   7.5   -1   13  <br>-013-Revision 9-12/11/2018<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         | SW             | 5000                             | ->                               |                                      |                                                   |                    | Ē                                      | S<br>S<br>S<br>S<br>S | 7.56          | <i>a</i> .03                           | 210            |                 |
| -013 - Revision 9 - 12/11/2018<br>AWL 1025 - 000345                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                         | and            | 5                                | 7                                |                                      |                                                   | ~                  | Ī                                      |                       | 1.21          | 1                                      | Ø              |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WL-013 - Re                             | vision 9 - 12/ | 11/2018                          |                                  |                                      |                                                   | 25 - 0002          | ÅF                                     |                       |               |                                        |                | 10000           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                         |                |                                  |                                  |                                      |                                                   |                    |                                        |                       |               |                                        |                |                 |

# C VARIA UNI

| SAMPLE                                                                                                                                      | SITE                                     | START                         | H               | Hq             | Acid/Base        | ĊĽ                | BOTTLE      | VOL      | D.O.          | D.O.                                     | END     | 17-23 °C |     |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------|-----------------|----------------|------------------|-------------------|-------------|----------|---------------|------------------------------------------|---------|----------|-----|
| 0                                                                                                                                           | Ð                                        | TIME                          | 6.5 - 7.5?      | 7.0-7.2?       | Used             | ٨/N               | 10#         | (Iu)     | DAY 1         | DAY 5                                    | TIME    | Y/N +    |     |
| <b>Approx</b>                                                                                                                               | Cope                                     | 0909                          | ٦<br>ا          |                |                  | γ                 | 135         | Ĵ        | 1,60          | 61.0                                     | 1113    |          |     |
| Sanal                                                                                                                                       | Arwalel                                  | 10                            | -               |                |                  |                   | 6           | 10       | 7.56          | 545                                      | Ţ       |          |     |
|                                                                                                                                             |                                          | 5                             | *               |                |                  |                   | Jahel       | 52       | 5 V L         | - 1-1-                                   | 5       |          |     |
|                                                                                                                                             |                                          | (3                            |                 |                |                  |                   | 84          | 20       | 7.56          | 12                                       | ي<br>ا  |          |     |
|                                                                                                                                             |                                          | ل<br>ر                        |                 |                |                  | 1                 | 8112        | 100      | <u>ה</u><br>ה | 17                                       | 2       |          |     |
|                                                                                                                                             |                                          | 15                            | <b>V</b>        |                |                  | Λ                 | 1-2-2-1     |          | 9-44          | レイ                                       | 5       |          |     |
| 205426                                                                                                                                      | YMPCA                                    | 0853                          |                 |                |                  | 2                 | 나머니         |          | 61.8          | 5,13                                     | 216     |          |     |
|                                                                                                                                             |                                          | 53                            |                 |                |                  |                   | 835         | <i>с</i> | 1.57          | 374                                      | 5       |          |     |
|                                                                                                                                             |                                          | 54                            |                 |                |                  |                   | -eare o     |          | 05-1          | 4                                        | 5       |          |     |
|                                                                                                                                             |                                          | 55                            | ,               |                |                  |                   | ०७४         | थ        | 1.81          | 17                                       | 5       |          |     |
|                                                                                                                                             |                                          | 26                            | N I             |                |                  | Λ                 | J<br>-      | 25       | 7:24          | r'                                       | 5       |          |     |
| 30,5439                                                                                                                                     | (LOOKS                                   | 1032                          | 1               |                |                  | Ν                 | Bluch       | -        | ר.<br>ר.      | エナ・シ                                     | 11 18   |          |     |
|                                                                                                                                             |                                          | 33                            | Y               |                |                  |                   | (d)         | Ф        | 7.89          | 6<br>9                                   | Ø       |          |     |
|                                                                                                                                             |                                          | 34                            |                 |                |                  |                   | 050         | S        |               | 5.15                                     | 20      |          |     |
|                                                                                                                                             |                                          | <u>5</u> 5                    |                 |                |                  |                   | 88          | 2        | R.O.          | 447                                      | 20      |          |     |
|                                                                                                                                             |                                          | 36                            |                 |                |                  |                   | 059         | SC       | 8.15          | 101                                      | 2       |          |     |
|                                                                                                                                             |                                          | 50                            |                 |                |                  | 1                 | 380         | SU       | 8.34          | てし                                       | 21      |          |     |
|                                                                                                                                             |                                          | 38                            | ~               |                |                  | >                 | 3180        | 00       | R. WE         | 1                                        | 5       |          |     |
| SUSHSI                                                                                                                                      | Pineland                                 | 1305                          | ۲<br>۲          |                |                  | 2                 | FIF         | .05      | 7.44          | 10.34                                    | 1123    |          |     |
|                                                                                                                                             | Doivy                                    | 90                            | <b>-</b>        |                |                  | 1                 | 63          | · /      | SHIP          | 5.59                                     | 24      |          |     |
|                                                                                                                                             |                                          | 6                             |                 |                |                  |                   | 30          | . 25     | 7.58          | 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- | 25      |          |     |
|                                                                                                                                             |                                          | 08                            |                 |                |                  |                   | B۱          | \$,      | 7.74          | 1.59                                     | 50      |          |     |
|                                                                                                                                             | ,                                        | 60                            | /               |                |                  | V                 | 188         | -        | 015.L         | 1-7                                      | 24      |          |     |
| NOTES:                                                                                                                                      | *                                        |                               |                 |                |                  |                   |             |          |               |                                          |         |          |     |
|                                                                                                                                             |                                          |                               |                 |                |                  |                   |             |          |               |                                          |         |          |     |
|                                                                                                                                             |                                          |                               |                 |                |                  |                   | ANALYST 1   | R        |               | DATE 8                                   | 1281    |          |     |
| * If N, please comment why                                                                                                                  | mment why                                |                               |                 |                |                  |                   | ANALYST 2   | J        |               | date 8                                   | 8 23 2  |          |     |
| LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District<br>H14MgO11S = Magnesium Sulfate Heptahydrate | n-Auburn Water Pol<br>esium Sulfate Hept | llution Control ,<br>ahydrate | Authority, SSD= | -Scarborough S | sanitary Distric | t                 | CHECKED BY: | BY: ZF   |               | DATE                                     | 8/23/21 |          |     |
| WL-013 - R                                                                                                                                  | WL-013 - Revision 9 - 12/11/2018         | 1/2018                        |                 |                | QAWL10           | QAWL1025 - 000345 | 345         |          |               |                                          |         | 0000113  | 113 |

# Katahdin Analytical Services 5000327

0000113

|                                                                                                                 |                                  | KATAHDI         | <b>KATAHDIN ANALYTICAL</b>                             |                                                                                                                 | <b>SERVICES - BIOCHEMICAL OXYGEN DEMAND</b>                     | IOCHEMIC             | SAL OXYG        | EN DEMA              | DN             |                                         |                             |                   |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------|-----------------|----------------------|----------------|-----------------------------------------|-----------------------------|-------------------|
| Check the appropriate Test and Method:                                                                          | iate Test and N                  | Method:         | If CBOD is checked below,<br>been added to each bottle |                                                                                                                 | this indicates that 0.16g of nitrification inhibitor has below. | l 6g of nitrificatio | n inhibitor has | pH Meter Calibration | alibration     | Probe ID:                               |                             |                   |
| Total BOD:                                                                                                      | SM5210B                          | EPA 405.1       |                                                        |                                                                                                                 | PQL: 2.0 mg/L                                                   | g/L                  |                 | True Value           | Lot ID         | Actual Value                            | Actual Value Accept? ± 0.05 |                   |
| Carbonaceous BOD:                                                                                               | ä                                | SM5210B         |                                                        |                                                                                                                 | PQL: 2.0 mg/L                                                   | lg/L                 |                 | 4.01                 |                |                                         | *                           |                   |
| Glutamic Acid Std (GGA) ID: GGA                                                                                 | GA) ID: GGA                      |                 | <b>GGA Preparation:</b>                                | on:                                                                                                             | Seed Used Source ID and Amount:                                 | urce ID and A        | mount:          | 7.00                 |                |                                         |                             |                   |
| Nitirification Inhibitor ID:                                                                                    | Ö                                |                 | 0.15g Glucose ID:                                      | ë                                                                                                               | LAWPCA:                                                         |                      | 1 mL            | 10.01                |                |                                         | ÷                           |                   |
| Phosphate Bffr Soln. ID:                                                                                        | . ID:                            |                 |                                                        |                                                                                                                 | SSD:                                                            |                      | 1 mL            | DO Meter ID:         | B27869         | DO Probe ID:                            |                             |                   |
| H₁₄MgO₁₁S ID:                                                                                                   |                                  |                 | 0.15 g Glutamic Acid ID                                | ic Acid ID:                                                                                                     | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ID:               |                      |                 | KI Paper ID:         |                | pH Paper ID:                            |                             |                   |
| Ferric Chloride Soln. ID:                                                                                       | .D:                              |                 |                                                        |                                                                                                                 | Starch Indicator ID:                                            | or ID:               |                 | Carboy ID:           |                | 1:50 H <sub>2</sub> SO <sub>4</sub> ID: |                             |                   |
| Calcium Chloride Soln. ID                                                                                       | oln. ID:                         |                 |                                                        |                                                                                                                 | Potassium lodide Soln. ID                                       | lide Soln. ID:       |                 | Pipet IDs:           |                |                                         |                             |                   |
| Acid 1 ID (A1):                                                                                                 |                                  | Acid 2 ID (A2): | ?):                                                    |                                                                                                                 | Base1 ID (B1):                                                  |                      |                 | Base 2 ID (B2);      | 2):            |                                         |                             |                   |
|                                                                                                                 |                                  |                 |                                                        |                                                                                                                 |                                                                 |                      |                 |                      |                |                                         |                             | SMP TEMP<br>DAY 1 |
| SAMPLE                                                                                                          | SITE                             | START           | Hd                                                     | Ηd                                                                                                              | Acid/Base                                                       | CL-                  | BOTTLE          | VOL                  | D.O.           | D.O.                                    | END                         | 17-23 °C          |
| Q                                                                                                               | ē                                | TIME            | 6.5 - 7.5?                                             | 7.0-7.27                                                                                                        | Used                                                            | ٨'N                  | # <u></u>       | (m)                  | DAY 1          | DAY 5                                   | TIME                        | × N/λ             |
| S05463-1                                                                                                        | Seves                            |                 |                                                        |                                                                                                                 |                                                                 | 7                    | 156 8           | 1                    | <b>T</b> :32   | ナで・シ                                    | 1197                        |                   |
|                                                                                                                 |                                  | 84              |                                                        |                                                                                                                 |                                                                 | 1                    | \$ Q .          |                      | 7.38           | 01.0                                    | 3R                          |                   |
|                                                                                                                 |                                  | 49              |                                                        |                                                                                                                 |                                                                 | _                    | non             | S                    | SH'L           | 5.89                                    | 99                          |                   |
|                                                                                                                 |                                  | SU              |                                                        |                                                                                                                 |                                                                 |                      | 191             | 10                   | 7.35           | טרב                                     | Зо                          |                   |
|                                                                                                                 |                                  | 15              |                                                        |                                                                                                                 |                                                                 |                      | 1347            | See                  | 7.37           | 4.4S                                    | S<br>S                      |                   |
|                                                                                                                 |                                  | 65              |                                                        |                                                                                                                 |                                                                 |                      | LADO            | 50                   | 1.38           | 2.54                                    | 31                          |                   |
|                                                                                                                 |                                  | 53              |                                                        |                                                                                                                 |                                                                 |                      | ЧP              | 100                  | بالج.ما        | 41                                      | 31                          |                   |
| Segtles2                                                                                                        | Seres                            | noson           |                                                        |                                                                                                                 |                                                                 | Â                    | ક               | 300                  | 81:H           | 17                                      | 16                          |                   |
|                                                                                                                 |                                  | 57              | 7                                                      |                                                                                                                 |                                                                 | 2                    | for             | •                    | JS:L           | 6.95                                    | 1133                        |                   |
|                                                                                                                 |                                  | \$8             |                                                        |                                                                                                                 |                                                                 |                      | 662             | 5                    | 1.SS           | و کې                                    | 50                          |                   |
|                                                                                                                 |                                  | 100             |                                                        |                                                                                                                 |                                                                 |                      | ġ               | S                    | 7.34           | とこれ                                     | S<br>S<br>S                 |                   |
|                                                                                                                 |                                  | õ               |                                                        |                                                                                                                 |                                                                 |                      | 101             | 5                    | 07-10<br>07-10 | 72.54                                   | ŝ                           |                   |
|                                                                                                                 |                                  | 69              |                                                        |                                                                                                                 |                                                                 |                      | PHO             | 15                   | 7.25           | 4.36                                    | ЗС<br>С                     |                   |
|                                                                                                                 |                                  | 8               |                                                        |                                                                                                                 |                                                                 |                      | 893<br>8        | л<br>б               | 1.23           | 3.93                                    | 31                          |                   |
|                                                                                                                 |                                  | 20              |                                                        |                                                                                                                 |                                                                 |                      | 453             | 100                  | (o.10)         | 5.53                                    | 33                          |                   |
|                                                                                                                 |                                  | හි              |                                                        |                                                                                                                 |                                                                 |                      | 13(3            | 300 1                | tot            | <u> </u>                                | 38                          |                   |
| ł                                                                                                               | S<br>M<br>S                      | 20<br>5         | >                                                      |                                                                                                                 |                                                                 |                      | BY              |                      | 7.56           | <u>A</u>                                | W 39                        |                   |
| WL-013 - R(                                                                                                     | WL-013 - Revision 9 - 12/11/2018 | 11/2018         |                                                        |                                                                                                                 |                                                                 |                      |                 |                      |                | S. LA                                   | - 812312                    |                   |
|                                                                                                                 | - 14<br>- 14<br>- 14             |                 |                                                        |                                                                                                                 | OAWL10                                                          | QAWI 1025 - 000345   | 45              |                      |                |                                         |                             | 000011            |
| A STATE OF A | A NUMBER OF CONTRACT OF CONTRACT |                 | established                                            | A THE OWNER AND |                                                                 |                      |                 |                      |                |                                         |                             |                   |

41 1

|                                          | I HANNA | 2<br>2<br>2<br>2<br>2<br>2                                                                                      |             | - |  |   | <br> |  | <br> |   |   |  |   |   | 2 | RIZZIS | 222 | 7      |   |              | 1                           |                                                                                                                                                                         | 0000115                          |
|------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------|-------------|---|--|---|------|--|------|---|---|--|---|---|---|--------|-----|--------|---|--------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| SMP TEMP<br>DAY 1<br>17-23 °C<br>Y / N * |         |                                                                                                                 |             |   |  |   |      |  |      | - |   |  |   |   |   |        |     |        |   |              |                             |                                                                                                                                                                         | 000                              |
| END<br>TIME                              | 1140    |                                                                                                                 | $\setminus$ |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   | DATE 8/18/21 | मिर्स                       | e/23/24                                                                                                                                                                 |                                  |
| D.O.<br>DAY 5                            | 3.19    |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   | DATE 8       | DATE                        | DATE                                                                                                                                                                    |                                  |
| D.O.<br>DAY 1                            | 7.53    | COMPANY OF THE OWNER |             |   |  | ÷ |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             |                                                                                                                                                                         |                                  |
| (m])<br>(m]                              |         |                                                                                                                 |             |   |  |   |      |  |      |   | - |  |   |   |   |        |     |        |   | J            | E                           | J<br>SX: CI                                                                                                                                                             |                                  |
| BOTTLE<br>ID#                            | 910     |                                                                                                                 |             |   |  |   |      |  |      |   |   |  | - |   |   |        |     |        |   | ANALYST 1    | ANALYST 2                   | CHECKED BY:                                                                                                                                                             | 45                               |
| CL.<br>XN                                |         |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             | <b>4</b>                                                                                                                                                                | OAWL1025 - 000345                |
| Acid/Base<br>Used                        |         |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             | sanitary Distric                                                                                                                                                        | OAWL10                           |
| рН<br>7.0-7.27                           |         |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             | -Scarborough S                                                                                                                                                          |                                  |
| рН<br>6.5 - 7.57                         |         |                                                                                                                 | -           |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             | Authority, SSD:                                                                                                                                                         |                                  |
| START<br>TIME                            | 1-0-1   | •                                                                                                               |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        |   |              |                             | llution Control ,<br>ahydrate                                                                                                                                           | 1/2018                           |
| SITE<br>D                                | ŚŴ      |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   |   |   |        |     |        | • |              | somt why                    | uburn Water Po<br>um Sulfate Hept                                                                                                                                       | ision 9 - 12/11                  |
| SAMPLE                                   |         |                                                                                                                 |             |   |  |   |      |  |      |   |   |  |   | X |   |        |     | NOTES: |   |              | * If NI piperso commont why | n ry, prease comment wry<br>LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District<br>H14MgO11S = Magnesium Sulfate Heptahydrate | WL-013 - Revision 9 - 12/11/2018 |

Run ID 2: R574896 WET CHEMISTRY BATCH REPORT Aug 20 2021, 11:39 am Run ID 1: R574875 Ru Batch: WG304830

Parameter: Dissolved Organic Carbon (1)

Date Analyzed: 19-AUG-21

Analyst Initials: JL

Prep Chemist: N/A

Prep Method: N/A

Prep Date: N/A

| Sample         | Samp Type | Method             | Initial Amt | Initial Amt. Final Amt. | Rpt. DF | Result  | Rpt Result | TS (\$) | PQL                                                                                              | TOW  | Ađj PQL    | RPD | %<br>전문C                        |
|----------------|-----------|--------------------|-------------|-------------------------|---------|---------|------------|---------|--------------------------------------------------------------------------------------------------|------|------------|-----|---------------------------------|
| S05208-1       | SAMP      | SW846 9060A        | 20.000mL    | 20.000mL                |         | 195     | 3 2 mg /1. |         | 1<br>4<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 |      |            |     | 8 8 8 8 8 8 9 1 1 4 5 2 8 8 9 1 |
| SO5208-2       | SAMP      |                    | 20 000mL    | 20.000mL                |         | 3.142   | 3.1 mg/L   | NA      | 4 स्न                                                                                            | 25.0 | ) C<br>1 F |     |                                 |
| SO5208-3       | SAMP      | SW846 9060A        | 20.000mL    | 20.000mL                | гı      | .3.165  | 3.2 mg/L   | NA      |                                                                                                  | 0.32 | ) C        |     |                                 |
| SO5208-4       | SAMP      | SW846 9060A        | 20.000mL    | 20.000mL                | m       | .3.045  | 3.0 mg/L   | NA      |                                                                                                  | 0.32 |            |     |                                 |
| SO5208-5       | SAMP      | SW846 9060A        | 20.000mL    | 20.000mL                | ч       | .3.147  | 3.1 mg/L   | NA      |                                                                                                  | 0.32 | 0.1        |     |                                 |
| SO5208-7       | SAMP      | SW846 9060A        | 20.000mL    | 20,000mL                | ы       | - 3.163 | 3.2 mg/L   | NA      |                                                                                                  | 0.32 | 0.1        |     |                                 |
| SO5208-8       | SAMP      |                    | 20.000mL    | 20.000mL                | r-1     | 3.084   | 3.1 mg/L   | NA      | <del>.</del> .4                                                                                  | 0.32 | 1.0        |     |                                 |
| SO5208-9       | SAMP      |                    | 20.000mL    | 20,000mL                | 1       | .1631   | UI.0 mg/L  | NA      | г                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-1       | SAMP      |                    | 20.000mL    | 20.000mL                | m       | .4.135  | 4.1 mg/L   | NA      | 1                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248~10      | SAMP      |                    | 20.000mL    | 20.000mL                | r-      | . 2.946 | 2.9 mg/L   | NA      | г                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-11      | SAMP      |                    | 20.000mL    | 20.000mL                | 1       | . 2553  | UL.0 mg/L  | NA      | Ч                                                                                                | 0.32 | 1.0        |     |                                 |
| S05248-2       | SAMP      |                    | 20.000mL    | 20.000mL                | г       | . 3.305 | 3.3 mg/L   | NA      | 1                                                                                                | 0.32 | 1.0        |     |                                 |
| S05248-3       | SAMP      | SW846 9060A        | 20,000mL    | 20.000mL                | 1       | • 3.134 | 3.1 mg/L   | NA      | г                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-4       | SAMP      |                    | 20.000mL    | 20,000mL                | ч       | . 2.965 | 3.0 mg/L   | NA      | 1                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-5       | SAMP      |                    | 20.000mL    | 20.000mL                | 7       | .3.005  | 3.0 mg/L   | NA      | 1                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-6       | SAMP      |                    | 20.000mL    | 20.000mL                | -1      | . 3.023 | 3.0 mg/L   | NA      |                                                                                                  | 0.32 | 1.0        |     |                                 |
| SO5248-7       | SAMP      | SW846 9060A        | 20.000mL    | 20.000mL                | -1      | , 3.052 | 3.0 mg/L   | NA      | F                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-8       | SAMP      |                    | 20.000mL    | 20.000mL                | -1      | • 3.4   | 3.4 mg/L   | NA      | m                                                                                                | 0.32 | 1.0        |     |                                 |
| SO5248-9       | SAMP      |                    | 20.000mL    | 20.000mL                | 1       | . 2.846 | 2.8 mg/L   | NA      | -                                                                                                | 0.32 | 1.0        |     |                                 |
| WG304830-1     | MBLANK    | SW846 9060A        | 20.000mL    | 20.000mL                | 1       | 06805   | U0.50 mg/L | NA      | <b>e</b> rri                                                                                     | 0.32 | 1.0        |     |                                 |
| WG304830-2     | LCS       |                    | 20.000mL    | 20.000ML                | -1      | 52,19   | 52. mg/L   | NA      |                                                                                                  | 0.32 | 1.0        |     | 104                             |
| WG304830-3     | MS        | SW846 9060A        | 20.000mL    | 20.000mL                | -1      | .103.9  | 100 mg/L   | NA      | m                                                                                                | 0.32 | л.0        |     | 101                             |
| WG304830-4     | MSD       | SW846 9060A        | 20.000mL    | 20.000mL                | 4       | .103.8  | 100 mg/L   | NA      |                                                                                                  | 0.32 | 1.0        | 0   | 101                             |
| Ka<br>Munents: |           |                    |             |                         |         |         |            |         |                                                                                                  |      |            |     |                                 |
| te             |           | MG (MGD)           |             |                         |         |         |            |         |                                                                                                  |      |            |     |                                 |
| G304830-1      |           | M2/M3D<br>S05208-5 |             |                         |         |         |            |         |                                                                                                  |      |            |     |                                 |
| 0304830-2      |           | SO5208-5           |             |                         |         |         |            |         |                                                                                                  |      |            |     |                                 |

SO5208~5 SO5208~5

Date: 80001 Accepted by:\_\_\_\_

Date: \$/20/21

ど

Entered by:

WET CHEMISTRY BATCH REPORT Aug 20 2021, 11:39 am Batch: WG304830 Run ID 1: R574875 Run ID 2: R574896

|                                         |                          |                                        |                         | 8<br>8<br>8<br>8<br>4                                                                            |           |                                                                                |
|-----------------------------------------|--------------------------|----------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|
|                                         |                          |                                        | C<br>A<br>KeC           | 3<br>3<br>3<br>3<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4 |           |                                                                                |
|                                         |                          |                                        | RPD                     | 8<br>1<br>1<br>1<br>4<br>4                                                                       |           |                                                                                |
|                                         |                          |                                        | Adj PQL                 |                                                                                                  |           |                                                                                |
|                                         |                          |                                        | TCW                     | 0.32                                                                                             |           |                                                                                |
|                                         |                          |                                        | ЪQL                     | ,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,      |           |                                                                                |
|                                         |                          |                                        | S (%)                   | W                                                                                                |           |                                                                                |
| Prep Date: N/A                          | Prep Method: N/A         | Analyst Initials: JL Prep Chemist: N/A | Rpt R                   | 3.2 mg/L                                                                                         |           |                                                                                |
|                                         |                          |                                        | Rpt. DF Result          | 3.192                                                                                            |           |                                                                                |
|                                         |                          |                                        |                         | 20.00mL                                                                                          |           |                                                                                |
| (1)                                     | Date Analyzed: 20-AUG-21 |                                        | Initial Amt. Final Amt. | 20.000mL                                                                                         |           |                                                                                |
| Parameter: Dissolved Organic Carbon (1) |                          |                                        | Method                  | SW846 9060A                                                                                      |           | MS/MSD<br>SO5208-5<br>SO5208-5<br>SO5208-5<br>SO5208-5<br>SO5208-5             |
|                                         |                          |                                        | Samp Type Method        | SAMP                                                                                             |           |                                                                                |
| Parameter:                              |                          |                                        | Sample                  | S05208-6                                                                                         | Comments: | SO5208-5<br>WG304830-1<br>WG304830-2<br>WG304830-2<br>WG304830-3<br>WG304830-4 |

Run ID 2: R574898 WET CHEMISTRY BATCH REPORT Aug 20 2021, 11:46 am Run ID 1: R574876 Batch: WG304831

Parameter: Total Organic Carbon (1)

Date Analyzed: 20-AUG-21 Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

| Sample     | Samp Type Method                                  | Method                            | Initial Amt                                                                                      | Initial Amt. Final Amt. | Rpt.                  | DF Result | Rpt Result | TS (%)                     | ЪQL                                     | JUM                                                                                              | Adj PQL | RPD                                      | %Rec |
|------------|---------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------|-------------------------|-----------------------|-----------|------------|----------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------|---------|------------------------------------------|------|
|            | <br> |                                   | 1<br>4<br>4<br>5<br>1<br>1<br>5<br>1<br>1<br>5<br>1<br>1<br>5<br>1<br>1<br>1<br>1<br>1<br>1<br>1 |                         | 1<br>1<br>1<br>1<br>1 |           |            | 4<br>E E F E E E E E E F - | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ■<br>■<br>E<br>E<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F<br>F |         | F<br> <br> <br> <br> <br> <br> <br> <br> | E 0  |
| S05254-10  | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | -1                    | .7042     | J0.70 mg/L | NA                         | ra                                      | 0.25                                                                                             | 1.0     |                                          |      |
| S05254-11  | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | ŧщ                    | .195      | U0.50 mg/L | NA                         | r                                       | 0.25                                                                                             | 1.0     |                                          |      |
| S05254-12  | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | •                     | .9175     | J0.92 mg/L | NA                         | rmi                                     | 0.25                                                                                             | 1.0     |                                          |      |
| S05254-13  | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | гđ                    | .1942     | U0.50 mg/L | NA                         |                                         | 0.25                                                                                             | 1.0     |                                          |      |
| S05254-14  | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | Ч                     | .1578     | U0.50 mg/L | NA                         | ri                                      | 0.25                                                                                             | 1.0     |                                          |      |
| S05254-5   | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | -1                    | .2673     | J0.27 mg/L | NA                         | 7                                       | 0.25                                                                                             | 1.0     |                                          |      |
| SO5350-6   | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | -1                    | .5894     | J0.59 mg/L | NA                         | 1                                       | 0.25                                                                                             | 1.0     |                                          |      |
| SO5463~1   | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | ч                     | 7.136     | 7.1 mg/L   | NA                         | ~1                                      | 0.10                                                                                             | 1.0     |                                          |      |
| SO5463-2   | SAMP                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | г                     | 2.427     | 2.4 mg/L   | NA                         | -4                                      | 0.10                                                                                             | 1.0     |                                          |      |
| WG304831-3 | S MS                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | Ļ                     | 101.1     | 100 mg/L   | NA                         | ۲                                       | 0.10                                                                                             | 1.0     |                                          | 100  |
| WG304831-4 | 1 MSD                                             | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | m                     | 103.1     | 100 mg/L   | NA                         | 1                                       | 0.10                                                                                             | 1.0     | 2                                        | 102  |
| WG304831-5 | 5 MS                                              | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | 1                     | 102.5     | 100 mg/L   | NA                         | 1                                       | 0.10                                                                                             | 1.0     |                                          | 100  |
| WG304831-6 | 5 MSD                                             | SW846 9060A                       | 20.000mL                                                                                         | 20.000mL                | r-1                   | 102.9     | 100 mg/L   | NA                         | 1                                       | 0.10                                                                                             | 1.0     | 0                                        | 100  |
|            |                                                   |                                   |                                                                                                  |                         |                       |           |            |                            |                                         |                                                                                                  |         |                                          |      |
| COMMENTES: |                                                   |                                   |                                                                                                  |                         |                       |           |            |                            |                                         |                                                                                                  |         |                                          |      |
| S05254-1   |                                                   | SW9056-ANIONS report Cl, SO4, Br, | report Cl, SO4                                                                                   | ł, Br, F                |                       |           |            |                            |                                         |                                                                                                  |         |                                          |      |

SW9056-ANIONS REPORT CL, SO4, BF, F أتعر قتر أتدر أتعر أتعر أندر أعدر أتدر أتدر أتدر أتدر أتدر أتدر MS/MSD, Anions report Cl & S04. Anions report Cl & SO4. S05350-6 S05463-2 S05463-2 SO5350-6 S05350-6 SO5350-6 MS/MSD Entered by: Entered Entered Entered Entered States (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997 S05254-11 S05254-12 S05254-13 S05254-13 S05254-14 S05254-10 S05254-2

Date: 2/20/24 Y D Accepted by:\_\_\_\_\_ Date: X

WET CHEMISTRY BATCH REPORT Aug 20 2021, 11:46 am Batch: WG304831 Run ID 1: R574876 Run ID 2: R574898

Parameter: Total Organic Carbon (1)

Date Analyzed: 19-AUG-21

Analyst Initials: JL

Prep Chemist: N/A

Prep Method: N/A

Prep Date: N/A

|                         | 1           |             |          |             |            |             |             |             |             |             |
|-------------------------|-------------|-------------|----------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| L RPD &Rec              |             |             |          |             |            |             |             |             |             | 104         |
| RPD                     |             |             |          |             |            |             |             |             |             |             |
| Adj PQL                 | 1.0         | 0.1         | 1.0      | 1.0         | 1.0        | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
| MDL                     | 0.25        | 0.25        | 0.25     | 0.25        | 0.25       | 0.25        | 0.25        | 0.25        | 0.10        | 01.0        |
| PQL                     | н           |             | 1        |             | rí         | ٦           |             | Ţ           | ıщ          | -           |
| TS (%)                  | NA          | NA          | NA       | NA          | NA         | NA          | NA          | NA          | NA          | NA          |
| Rpt Result              | J0.90 mg/L  | JO.57 mg/L  | 1.0 mg/L | J0.35 mg/L  | J0.57 mg/L | U0.50 mg/L  | JO.66 mg/L  | U0.50 mg/L  | JO.11 mg/L  | 52. mg/L    |
| Rpt. DF Result          | .9044       | .5664       | 1.005    | .3485       | .57        | .2318       | .6576       | .1961       | .1147       | 52.24       |
| 1                       | ***         | 1           | 1        | ۳4          | 1          | ٣i          |             | **          | н           | r           |
| Initial Amt. Final Amt. | 20.000mL    | 20.000mL    | 20.000mL | 20.000mL    | 20.000mL   | 20.000mL    | 20.000mL    | 20.000mL    | 20.000mL    | 20.000mL    |
| Initial Amt             | 20.000mL    | 20.000mL    | 20.000mL | 20.000mL    | 20.000mL   | 20.000mL    | 20.000mL    | 20.000ML    | 20,000mL    | 20.000mL    |
| Method                  | SW846 9060A | SW846 9060A |          | SW846 9060A |            | SW846 9060A |
| Samp Type               | SAMP        |             |          |             |            | SAMP        |             | SAMP        | 1 MBLANK    | 2 LCS       |
| Sample                  | S05254-1    | S05254-2    | SO5254-3 | S05254-4    | SO5254-6   | S05254-7    | SO5254-8    | SO5254~9    | WG304831-1  | WG304831-2  |

Comments:

| <pre>0 SW9056-ANIONS report Cl, S04,<br/>2 SW9056-ANIONS report Cl, S04,<br/>3 SW9056-ANIONS report Cl, S04,<br/>5W9056-ANIONS report Cl,</pre> | 54-1   | SW9056-ANIONS  | report   | ដ   | S04,  | Br, | Ľщ          |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|----------|-----|-------|-----|-------------|--|
| <pre>1 SW9056-ANIONS report Cl, SO4,<br/>2 SW9056-ANIONS report Cl, SO4,<br/>4 SW9056-ANIONS report Cl, SO4,<br/>5W9056-ANIONS report Cl, SO4,<br/>SW9056-ANIONS report Cl, SW904,<br/>SW9056-ANIONS report Cl, SW904,<br/>SW9056-ANIONS report Cl, SW904,<br/>SW9056-ANIONS REPORT RUM,<br/>SW9056-ANIONS RUM,<br/>SW9056-ANIONS RUM,<br/>SW9056-AN</pre>                                                                      | 54-10  | SW9056-ANTONS  | report   | ដ   | S04,  | Вг, | <b>[</b> 34 |  |
| <pre>2 SW9056-ANIONS report Cl, SO4,<br/>3 SW9056-ANIONS report Cl, SO4,<br/>SW9056-ANIONS report Cl, SO4,<br/>Anions report Cl, SO4,<br/>-2 SO5350-6<br/>-3 SO5350-6<br/>-5 SO5350-6</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 54-11  | SW9056-ANIONS  | report   | ď   | S04,  | Br, | ţı,         |  |
| <pre>3 SW9056-ANIONS report Cl, S04,<br/>8W9056-ANIONS report Cl, S04,<br/>SW9056-ANIONS report Cl, S04,<br/>MS/MSD report Cl, S04,<br/>MS/MSD Anions report Cl &amp; S04<br/>-2 S05350-6<br/>-3 S05350-6<br/>-5 S05350-6<br/>-5 S05350-6</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 54-12  | SW9056-ANTONS  | report   | ст' | S04,  | Br, | ĵz.         |  |
| <pre>4 SW9056-ANIONS report Cl, SO4,<br/>SW9056-ANIONS report Cl, SO4,<br/>MS/MSD report Cl, SO4,<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>SO5350-6<br/>-3 SO5350-6<br/>-3 SO5350-6<br/>-3 SO5350-6</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 54-13  | SW9056-ANIONS  | report   | ц,  | S04,  | Br, | ļ1.         |  |
| <pre>SW9056-ANIONS report Cl, SO4,<br/>SW9056-ANIONS report Cl, SO4,<br/>MS/MSD<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>S05350-6<br/>-3 S05350-6<br/>-3 S05350-6<br/>-3 S05350-6<br/>-3 S05350-6</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 54-14  | SW9056-ANIONS  | report   | J.  | S04,  | Br, | Γz.         |  |
| <pre>SW9056-ANIONS report Cl, SO4,<br/>SW9056-ANIONS report Cl, SO4,<br/>MS/MSD, ANIONS report Cl, SO4.<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>Anions report Cl &amp; SO4.<br/>S05350-6<br/>-3 S05350-6<br/>-4 S05463-2<br/>S05350-6</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 54-2   | SW9056-ANIONS  | report   | ប់  | S04,  | Br, | Ľ.          |  |
| SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>MS/MSD, Report Cl, SO4.<br>MS/MSD, Anions report Cl & SO4<br>Anions report Cl & SO4.<br>MS/MSD, Anions report Cl & SO4<br>anions report Cl & SO4.<br>S05350-6<br>-3 S05350-6<br>-5 S05350-6<br>-5 S05350-6<br>-5 S05350-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 54-3   | SW9056-ANIONS  | report   | ст, | S04,  | Br, | [z.         |  |
| SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>MS/MSD<br>Anions report Cl & SO4.<br>MS/MSD, Anions report Cl & SO4<br>-2 SO5350-6<br>-3 SO5350-6<br>-5 SO5350-6<br>-5 SO5350-6<br>-5 SO5350-6<br>-5 SO5350-6<br>-5 SO5350-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 54 - 4 | SW9056-ANIONS  | report   | ដ   | S04,  | Βr, | ţr.,        |  |
| SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>MS/MSD Report Cl, SO4.<br>Anions report Cl & SO4.<br>Anions report Cl & SO4.<br>Anions report Cl & SO4.<br>SO5350-6<br>-3 SO5350-6<br>-5 SO5350-6<br>-5 SO5350-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 54-5   | SW9056-ANIONS  | report   | IJ, | S04,  | Br, | [II]        |  |
| SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>MS/MSD<br>Anions report Cl & SO4<br>-1 S05350-6<br>-3 S05350-6<br>-3 S05350-6<br>-3 S05350-6<br>-5 S05350-6<br>-5 S05350-6<br>-5 S05350-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 54-6   | SW9056-ANIONS  | report   | CI, | S04 , | Br, | Ľ.          |  |
| SW9056-ANIONS report Cl, SO4,<br>SW9056-ANIONS report Cl, SO4,<br>MS/MSD Anions report Cl & SO4<br>Anions report Cl & SO4.<br>MS/MSD, Anions report Cl & SO4<br>-1 S05350-6<br>-3 S05350-6<br>-3 S05350-6<br>-5 S05350-6<br>-5 S05350-6<br>-5 S05350-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 54-7   | SW9056-ANIONS  | report   | ដ   | S04,  | Br, | ſz.,        |  |
| SW9056-ANIONS report Cl, SO<br>MS/MSD<br>Anions report Cl & S04.<br>Anions report Cl & S04.<br>MS/WSD, Anions report Cl &<br>-1 S05350-6<br>-3 S05350-6<br>-4 S05350-6<br>-5 S05463-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 54-8   | SW9056-ANIONS  | report   | сı, | S04,  | Br, | Ex,         |  |
| MS/MSD<br>MS/MSD<br>Anions report Cl & S04.<br>MS/MSD, Anions report Cl &<br>-1 S05350-6<br>-2 S05350-6<br>-3 S05350-6<br>-4 S05350-6<br>-5 S05463-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 54-9   | SW9056-ANIONS  | report   | С,  | S04,  | Br, | ſц          |  |
| l Anions report Cl & SO4.<br>MS/MSD, Anions report Cl &<br>-1 S05350-6<br>-2 S05350-6<br>-2 S05350-6<br>-4 S05350-6<br>-5 S05350-6<br>-5 S0546-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50-6   | dSM/SM         |          |     |       |     |             |  |
| 2 MS/MSD, Anions report Cl &<br>1-1 S05350-6<br>1-2 S05350-6<br>1-3 S05350-6<br>1-4 S05350-6<br>1-4 S0546-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 63-1   | Anions report  | CI & SC  | 4.  |       |     |             |  |
| н (N) (M) 44 (L)<br>1 - 1 - ( - 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 63-2   | MS/MSD, Anions | s report |     |       | •   |             |  |
| 0,05,45,10<br>1 - ( )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4831-1 | SO5350~6       |          |     |       |     |             |  |
| ୍ୟ ସ୍ୱା ସ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4831-2 | SO5350-6       |          |     |       |     |             |  |
| - 44<br>5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4831-3 | SO5350-6       |          |     |       |     |             |  |
| ر<br>ا                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ŧ      | SO5350-6       |          |     |       |     |             |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4831-5 | SO5463-2       |          |     |       |     |             |  |
| 4831~6 SO5463-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4      | S05463-2       |          |     |       |     |             |  |

Date:\_\_\_ Ł Date KOUD Accepted by:\_\_\_\_

8/20/21

Entered by:\_\_\_

# KATAHDIN ANALYTICAL SERVICES, LLC CARBON ANALYSIS RUN INFORMATION SHEET

| INSTR. ID: WC2 (Shimadzu TOC-V <sub>CPI</sub> | -) ANALYST:    | JL DA1    | TE: 08/20/21 |
|-----------------------------------------------|----------------|-----------|--------------|
| FILE NAME: DOCI UR1921                        | METHOD(S): TOC | DOC       | TIC          |
| TUC1081921                                    | •EPA 415.1     | EPA 415.1 | EPA 415.1    |
|                                               | SM5310B        | SM5310B   | SM5310B      |
|                                               | •              | •         | •            |
|                                               |                |           |              |

CALIBRATION DATE: 07-23-21

CALIBRATION ANALYST: KD/JL

Calibration standards were prepared by performing dilutions of the following standard on the day of calibration:

| Calibration<br>Source Standard<br>ID | Prep Date | Expiration Date | Standard Conc.<br>(mg/L) |
|--------------------------------------|-----------|-----------------|--------------------------|
| W20214                               | 07/23/21  | 10/23/21        | 2000                     |

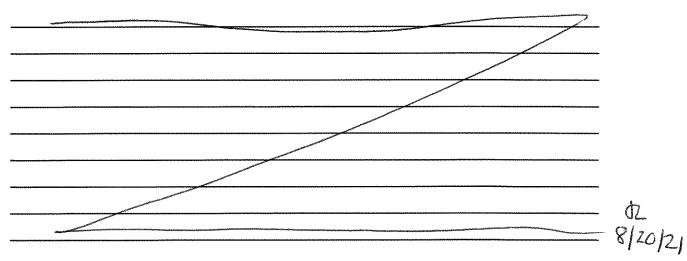
Note: Calibration must be performed quarterly or whenever a change in analysis conditions warrant. A copy of the associated calibration data is attached to this run.

# STANDARDS USED:

| Standard Name    | Standard ID | Prep Date | Expiration Date | Standard Conc.     |
|------------------|-------------|-----------|-----------------|--------------------|
| CCV              | W20215      | 07/23/21  | 10/23/21        | 100 mg C/L         |
| LCS              | W20212      | 07/23/21  | 10/23/21        | 50 mg C/L          |
| MS Stock Std. *  | W20214      | 07/23/21  | 10/23/21        | 2000 mg C/L        |
| Alkalinity Check | W20213      | 07/23/21  | 10/23/21        | 15 mg/L (Inorg. C) |

\* Matrix spikes are prepared by adding 2.0 mL of MS Stock Std. to 38 mL of sample.

# **Additional Comments and Notes:**



|          | Sample Name                            | Dilution | Result                              | Comment                                 | Date / Time                                  | Vial         |
|----------|----------------------------------------|----------|-------------------------------------|-----------------------------------------|----------------------------------------------|--------------|
| 1        | ALK CHECK                              | 1.000    | NPOC:0.3524 mg/L                    |                                         | 8/19/2021 3:35:26 PM                         | 1            |
| 2        | CCV                                    | 1.000    | NPOC:98.53 mg/L                     | 99%                                     | 8/19/2021 3:50:23 PM                         | 2            |
| 3        | BLANK                                  | 1.000    | NPOC:0.06805 mg/L                   |                                         | 8/19/2021 4:11:14 PM                         | 6            |
| 4        | LCS                                    | 1.000    | NPOC:52.19 mg/L                     |                                         | 8/19/2021 4:26:15 PM                         | 10           |
| 5        | LCS                                    | 1.000    | NPOC:52.24 mg/L                     |                                         | 8/19/2021 4:39:18 PM                         | 10           |
| 6        | SO5208-1                               | 1.000    | NPOC:3.195 mg/L                     |                                         | 8/19/2021 4:51:48 PM                         | 11           |
| 7        | SO5208-2                               | 1.000    | NPOC:3.142 mg/L                     |                                         | 8/19/2021 5:04:43 PM                         | 11<br>12     |
| 8        | SO5208-3                               | 1.000    | NPOC:3.165 mg/L                     |                                         | 8/19/2021 5:17:12 PM                         | 13           |
| 9        | SO5208-4                               | 1.000    | NPOC:3.045 mg/L                     |                                         | 8/19/2021 5:29:40 PM                         | 14           |
| 10       | SO5208-5                               | 1.000    | NPOC:3.147 mg/L                     |                                         | 8/19/2021 5:42:16 PM                         | 15           |
| 11       | SO5208-5 MS                            | 1.000    | NPOC:103.9 mg/L                     |                                         | 8/19/2021 5:57:09 PM                         | 16           |
| 12       | SO5208-5 MSD                           | 1.000    | NPOC:103.8 mg/L                     |                                         | 8/19/2021 6:11:56 PM                         | 17           |
| 13       | SO5208-7                               | 1.000    | NPOC:3.163 mg/L                     |                                         | 8/19/2021 6:24:18 PM                         | 19           |
| 14       | CCV                                    | 1.000    | NPOC:99.10 mg/L                     | 998                                     | 8/19/2021 6:39:39 PM                         | 2            |
| 15       | BLANK                                  | 1.000    | NPOC:0.1789 mg/L                    |                                         | 8/19/2021 6:51:00 PM                         | 2<br>6<br>20 |
| 16       | SO5208-8                               | 1.000    | NPOC:3.084 mg/L                     |                                         | 8/19/2021 7:03:59 PM                         |              |
| 17       | SO5208-9                               | 1.000    | NPOC:0.1631 mg/L                    |                                         | 8/19/2021 7:15:12 PM                         | 21           |
| 18       | SO5248-1                               | 1.000    | NPOC:4.135 mg/L                     | *******                                 | 8/19/2021 7:27:45 PM                         | 22           |
| 19       | SO5248-2                               | 1.000    | NPOC:3.305 mg/L                     |                                         | 8/19/2021 7:40:09 PM                         | 23           |
| 20       | SO5248-3                               | 1.000    | NPOC:3.134 mg/L                     |                                         | 8/19/2021 7:52:48 PM                         | 24           |
| 21       | SO5248-4                               | 1.000    | NPOC:2.965 mg/L                     |                                         | 8/19/2021 8:05:03 PM                         | 25           |
| 22       | SO5248-5                               | 1.000    | NPOC:3.005 mg/L                     | ***                                     | 8/19/2021 8:17:32 PM                         | 26           |
| 23       | SO5248-6                               | 1.000    | NPOC:3.023 mg/L                     |                                         | 8/19/2021 8:30:04 PM                         | 27           |
| 24       | SO5248-7                               | 1.000    | NPOC:3.052 mg/L                     | *** *** *** *** *********************** | 8/19/2021 8:42:39 PM                         | 28           |
| 25       | SO5248-8                               | 1.000    | NPOC:3.400 mg/L                     | د مع <sup>ر</sup>                       | 8/19/2021 8:55:21 PM                         | 29           |
| 26       | CCV                                    | 1.000    | NPOC:99.52 mg/L                     | 100%                                    | 8/19/2021 9:10:21 PM<br>8/19/2021 9:21:36 PM | 3            |
| 27<br>28 | BLANK<br>SO5248-9                      | 1.000    | NPOC:0.1026 mg/L<br>NPOC:2.846 mg/L | ******                                  | 8/19/2021 9:34:22 PM                         | 7<br>30      |
| 20       | SO5248-10                              | 1.000    | NPOC:2.946 mg/L                     | *******                                 | 8/19/2021 9:46:38 PM                         | 31           |
| 30       | SO5248-10                              | 1.000    | NPOC:0.2553 mg/L                    |                                         | 8/19/2021 9:58:00 PM                         | 32           |
| 31       | SO5254-1                               | 1.000    | NPOC:0.9044 mg/L                    |                                         | 8/19/2021 10:09:51 PM                        | 33           |
| 32       | SO5254-2                               | 1.000    | NPOC:0.5664 mg/L                    |                                         | 8/19/2021 10:21:39 PM                        | 34           |
| 33       | SO5254-3                               | 1.000    | NPOC:1.005 mg/L                     |                                         | 8/19/2021 10:33:34 PM                        | 35           |
| 34       | SO5254-4                               | 1.000    | NPOC:0.3485 mg/L                    |                                         | 8/19/2021 10:45:06 PM                        | 36           |
| 35       | SO5254-6                               | 1.000    | NPOC:0.5700 mg/L                    | *********                               | 8/19/2021 10:56:48 PM                        | 38           |
| 36       | SO5254-7                               | 1.000    | NPOC:0.2318 mg/L                    |                                         | 8/19/2021 11:08:01 PM                        | 39           |
| 37       | SO5254-8                               | 1.000    | NPOC:0.6576 mg/L                    |                                         | 8/19/2021 11:19:44 PM                        | 40           |
| 38       | CCV                                    | 1.000    | NPOC:100.2 mg/L                     | 100%                                    | 8/19/2021 11:34:46 PM                        | 3            |
| 39       | BLANK                                  | 1.000    | NPOC:0.1147 mg/L                    |                                         | 8/19/2021 11:45:58 PM                        | 3<br>7       |
| 40       | SO5254-9                               | 1.000    | NPOC:0.1961 mg/L                    |                                         | 8/19/2021 11:57:14 PM                        | 41           |
| 41       | SO5254-10                              | 1.000    | NPOC:0.7042 mg/L                    |                                         | 8/20/2021 12:08:58 AM                        | 42           |
| 42       | SO5254-11                              | 1.000    | NPOC:0.1950 mg/L                    |                                         | 8/20/2021 12:20:12 AM                        | 43           |
| 43       | SO5254-12                              | 1.000    | NPOC:0.9175 mg/L                    |                                         | 8/20/2021 12:32:05 AM                        | 44           |
| 44       | SO5254-13                              | 1.000    | NPOC:0.1942 mg/L                    | , - y y z                               | 8/20/2021 12:43:18 AM                        | 45           |
| 45       | SO5254-14                              | 1.000    | NPOC:0.1578 mg/L                    |                                         | 8/20/2021 12:54:27 AM                        | 46           |
| 46       | SO5350-6                               | 1.000    | NPOC:0.5894 mg/L                    |                                         | 8/20/2021 1:06:11 AM                         | 47           |
| 47       | SO5350-6 MS                            | 1.000    | NPOC:101.1 mg/L                     |                                         | 8/20/2021 1:20:45 AM                         | 48           |
| 48       | SO5350-6 MSD                           | 1.000    | NPOC:103.1 mg/L                     |                                         | 8/20/2021 1:35:17 AM                         | 49           |
| 49       | SO5463-1                               | 1.000    | NPOC:7.136 mg/L                     | * # 6 <sup>57</sup>                     | 8/20/2021 1:48:12 AM                         | 50           |
| 50       |                                        | 1.000    | NPOC:99.95 mg/L                     | 1007.                                   | 8/20/2021 2:03:22 AM<br>8/20/2021 2:14:38 AM | 3            |
| 51<br>52 | BLANK<br>SO5463-2                      | 1.000    | NPOC:0.1543 mg/L<br>NPOC:2.427 mg/L |                                         | 8/20/2021 2:14:38 AM<br>8/20/2021 2:26:58 AM | 51           |
| 52       | SO5463-2 MS                            | 1.000    | NPOC:102.5 mg/L                     |                                         | 8/20/2021 2:20.58 AM<br>8/20/2021 2:41:32 AM | 52           |
| 53       | SO5463-2 MSD                           | 1.000    | NPOC:102.9 mg/L                     |                                         | 8/20/2021 2:56:03 AM                         | 53           |
| 55       | SO5208-6                               | 1.000    | NPOC:3.192 mg/L                     |                                         | 8/20/2021 2:38:28 AM                         | 18           |
| 56       | SO5254-5                               | 1.000    | NPOC:0.2673 mg/L                    | *****                                   | 8/20/2021 3:20:01 AM                         | 37           |
| 57       | CCV                                    | 1.000    | NPOC:99.19 mg/L                     | 197/.                                   | 8/20/2021 3:35:13 AM                         | 4            |
| 58       | BLANK                                  | 1.000    | NPOC:0.2969 mg/L                    |                                         | 8/20/2021 3:46:47 AM                         | 8            |
| 59       |                                        |          |                                     |                                         |                                              |              |
| 60       |                                        |          |                                     |                                         |                                              |              |
| 61       |                                        |          |                                     |                                         |                                              |              |
| 62       | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |          |                                     |                                         |                                              |              |
| 63       |                                        |          |                                     |                                         |                                              |              |
| 64       |                                        | ļ        |                                     |                                         |                                              |              |
| 65       |                                        | ļ        |                                     |                                         |                                              |              |
| 66       |                                        |          |                                     |                                         |                                              |              |
| 67       |                                        | į        |                                     |                                         |                                              |              |

Instr. Information

JL

| System<br>Detector | TOC-Vcph / ASI-V<br>Combustion |
|--------------------|--------------------------------|
| Catalyst           | Regular Sensitivity            |
| Cell Length        | long                           |

Control Sample

| Sample Name: | ALK CHECK                                     |
|--------------|-----------------------------------------------|
| Sample ID:   | <untitled></untitled>                         |
| Method:      | ALK CHECK DOUBLE INJECTION.tpl                |
| Chk. Result  | Control value: 0.3524 / Control within range! |

| Туре    | Anal. | Dil.  | Result           |
|---------|-------|-------|------------------|
| Control | NPOC  | 1.000 | NPOC:0.3524 mg/L |

1. Det.

#### Anal.: NPOC

| No.    | Area  | Conc.      | lnj. Vol. | Aut.<br>Dil. | Ex. |                 |       | Cal  | Curv  | 9    |       |       |   |         | Dat    | e / Tim | e  |         |       |      |   |    |          |
|--------|-------|------------|-----------|--------------|-----|-----------------|-------|------|-------|------|-------|-------|---|---------|--------|---------|----|---------|-------|------|---|----|----------|
| 1      | 4.131 | 0.3929mg/L | 150uL     | 1            |     | toc aq cal 0723 | 21.20 | 21_( | 07_23 | 11_4 | 17_50 | ).cal | 8 | /19/202 | 13:32  | 2:58 PN | 1  |         |       |      |   |    |          |
| 2      | 3.279 | 0.3118mg/L | 150ul     | 1            |     | toc aq cal 0723 |       |      |       |      |       |       | 8 | /19/202 | 1 3:35 | 5:26 PN | 1  |         |       |      |   |    |          |
| Mean . | Area  | 3.705      | 5         |              |     | Signal[mV]      | 20    | r    |       | ,    |       |       |   | , ,     |        | 1       |    | ····· · |       |      |   | -  |          |
| Mean   | Conc. | 0.352      | 4mg/L     |              |     | 3[]             | 14    |      |       |      |       |       |   |         |        |         |    |         | <br>  | **** |   |    |          |
|        |       |            |           |              |     |                 | 1.44  |      |       |      |       |       |   |         |        |         |    |         | <br>  |      |   |    |          |
|        |       |            |           |              |     |                 | 7     | -    |       |      |       | ;     |   | 1       |        |         |    | *<br>   | <br>- |      |   |    |          |
|        |       |            |           |              |     |                 | ~     |      |       |      | 4     |       |   |         |        |         |    |         | <br>  |      |   |    |          |
|        |       |            |           |              |     |                 | -2    | ~    |       | >    | 4     |       | 6 | 8       |        | 10      | 12 | 14      | 16    | 18   | ~ | 20 | Time[min |

#### Control Sample

| Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result |       |      | CCV<br><untitled><br/>CCV DOUBLE INJECTION.tpl<br/>Control value: 98.53 / Control within range!</untitled> |
|------------------------------------------------------|-------|------|------------------------------------------------------------------------------------------------------------|
| Туре                                                 | Anal. | Dil. | Result                                                                                                     |

| Type    | Antai. | Da.     | i vesuit        |  |
|---------|--------|---------|-----------------|--|
|         |        |         |                 |  |
| Control | NPOC   | 1.000   | NPOC:98.53 mg/L |  |
|         |        | ······· |                 |  |

1. Det.

## Anal.: NPOC

| No. Area                | Conc.          | inj. Vol. | Aut.<br>Dil. | Ex. |                  | Cal                      | l. Curve |        |       |           |       | Date    | / Time       |                                       |              |      |  |
|-------------------------|----------------|-----------|--------------|-----|------------------|--------------------------|----------|--------|-------|-----------|-------|---------|--------------|---------------------------------------|--------------|------|--|
| 1 1036                  | 98.53mg/L      | 150uL     |              |     | toc aq cal 07232 | 1.2021                   | 07_23_1  | 1_47_5 | D.cal | 8/        | 19/20 | 213:46  | 25 PM        | <br>                                  |              |      |  |
| 2 1036                  | 98.53mg/L      | 150uL     |              |     | toc aq cal 07232 | 1.2021_                  | 07_23_1  | 1_47_5 | ).cal | 8/        | 19/20 | 21 3:50 | 23 PM        |                                       |              |      |  |
| Mean Area<br>Mean Conc. | 1036<br>,98.53 | mg/L      |              |     | Signal[mV]       | 400<br>300<br>200<br>100 | #~+      | -      | /     | <br>А<br> |       |         |              | · · · · · · · · · · · · · · · · · · · |              |      |  |
|                         |                |           |              |     |                  | -40                      |          | 1      |       |           |       | L       | <u>+ i</u> . | <u> </u>                              | <del> </del> | <br> |  |

2

4

6

8

10 12 14

0

٦

16 18 20

Time[min]

#### Control Sample

| Sample Name: | BLANK                                          |
|--------------|------------------------------------------------|
| Sample ID:   | <untitled></untitled>                          |
| Method:      | BLANK DOUBLE INJECTION.tpl                     |
| Chk. Result  | Control value: 0.06805 / Control within range! |
|              |                                                |
| T A          | Denult                                         |

| Туре    | Anal. | Dil.  | Hesult            |  |
|---------|-------|-------|-------------------|--|
| Control | NPOC  | 1.000 | NPOC:0.06805 mg/L |  |

# 1. Det.

# Anal.: NPOC

| No.              | Area  | Conc.          | Inj. Vol.   | Aut.<br>Díl. | Ex. |                  | 1        | Cal. ( | Curve |           |          |       |    |        | Date  | e / Tim | e        |        |       |    |        |        |           |
|------------------|-------|----------------|-------------|--------------|-----|------------------|----------|--------|-------|-----------|----------|-------|----|--------|-------|---------|----------|--------|-------|----|--------|--------|-----------|
| 1                | 1.431 | 0.1361mg/L     | 150uL       | 1            |     | toc ag cal 07232 | 1.202    | 21_07  | 23_   | 11_4      | 7_50.    | .cal  | 8/ | 19/202 | 14:09 | :08 PN  | A        |        | 1     |    |        |        |           |
| 2                | 0.000 | 0.000mg/L      | 150uL       | . 1          |     | toc aq cal 07232 | 1.202    | 21_07  | 23_   | 11_4      | 7_50.    | cal   | 8/ | 19/202 | 14:11 | 14 PM   | ٨        | ****** | 1     |    |        |        |           |
| Mean I<br>Mean I |       | 0.715<br>0.068 | 5<br>05mg/L |              |     | Signal[mV]       | 20<br>14 | ŀ      |       | • • • • • |          |       |    |        |       |         |          |        |       |    | <br>   |        |           |
|                  |       |                |             |              |     |                  | 7        |        |       |           |          |       |    |        |       |         |          |        | ·   · |    | <br>   |        |           |
|                  |       |                |             |              |     |                  | -2       |        |       | }<br>2    | <u> </u> | <br>L | 6  | 8      |       | 0       | -+<br>12 |        | 4     | 16 | <br>18 | <br>20 | Time[min] |

#### Control Sample

| Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result |       |     | LCS<br><untitled><br/>LCS DOUBLE INJECTION.tpl<br/>Control value: 52.19 / Control within range!</untitled> |
|------------------------------------------------------|-------|-----|------------------------------------------------------------------------------------------------------------|
| Туре                                                 | Anal. | Dil | Result                                                                                                     |

| Control | NPOC | 1.000 | NPOC:52.19 mg/L |
|---------|------|-------|-----------------|
|         |      | A     | ·               |

#### 1. Det.

#### Anal.: NPOC

| No.          | Area  | Conc.          | Inj. Vol.  | Aut.<br>Dil. | Ex. |                  | Ċa               | I. Curv | e     |         |      |          | I       | Date / T | ïme  |                                              |    |    |   |   |    |           |
|--------------|-------|----------------|------------|--------------|-----|------------------|------------------|---------|-------|---------|------|----------|---------|----------|------|----------------------------------------------|----|----|---|---|----|-----------|
| 1            | 551.1 | 52.41mg/L      | 150uL      | 1            |     | toc aq cal 07232 | 1.2021           | 07_23   | 11_4  | 7_50.ca | 3]   | 8/19     | /2021 4 | :22:19   | PM   |                                              |    |    |   |   |    |           |
| 2            | 546.5 | 51.97mg/L      | 150uL      | 1            |     | toc aq cal 07232 | 1.2021           | 07_23   | _11_4 | 7_50.ca | al 🛛 | 8/19     | /2021 4 | :26:15   | PM   |                                              |    |    |   |   |    |           |
| Mean<br>Mean |       | 548.8<br>52.19 | 3<br>ðmg/L |              |     | Signal[mV]       | 200<br>140<br>70 |         |       |         |      |          |         |          |      |                                              |    |    |   |   |    |           |
|              |       |                |            |              |     |                  | -20              |         |       |         |      | <u>P</u> |         | i. t.    | ···· | <u>†                                    </u> |    |    |   | ŀ |    |           |
|              |       |                |            |              |     |                  |                  | 0       | 2     | 4       |      | 6        | 8       | 10       | 1    | 2                                            | 14 | 16 | 1 | 8 | 20 | Time[min] |

#### Control Sample

Sample Name: Sample ID: Method: Chk. Result

LCS <Untitled> LCS DOUBLE INJECTION.tpl Control value: 52.24 / Control within range!

|                                        | Туре           | Anal.                  |                | Dil.         |       |                                                        | Result                                                                                                     |                                              |                 |           |
|----------------------------------------|----------------|------------------------|----------------|--------------|-------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------|-----------|
| Contro                                 | əl             | NPOC                   |                |              | 1.000 |                                                        | NPOC:52.24                                                                                                 | mg/L                                         |                 |           |
| 1. Det                                 |                |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| Anal.:                                 | NPOC           |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| No.                                    | Area           | Conc.                  | Inj. Vol.      | Aut.<br>Dil. | Ex.   |                                                        | Cal. Curve                                                                                                 | Date / Time                                  | ]               |           |
| 1                                      | 550.9          | 52.39mg/L              |                | ւ, 1         |       | toc aq cal 072321.20                                   |                                                                                                            | 8/19/2021 4:35:19 PM                         |                 |           |
| 2                                      | 547.8          | 52.10mg/L              | 150u           | <u>ų 1</u>   |       | toc aq cal 072321.20                                   | 021_07_23_11_47_50.cal                                                                                     | 8/19/2021 4:39:18 PM                         | ]               |           |
| Mean I                                 |                | 549.<br>52.24          | ŧ<br>ŧmg/L     |              |       | 14                                                     | $\begin{array}{c} 00\\ 40\\ 0\\ 20\\ 0 \end{array} \\ 0 \end{array} \\ 0 \end{array} \\ 2 4 6 \end{array}$ | 8 10 12                                      | 14 16 18 20     | Time[min] |
| Sample                                 | 0              |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| Sample<br>Sample<br>Origin:<br>Chk. R  |                |                        |                |              |       | SO5208-1<br><untitled><br/>DOUBLE INJECTION</untitled> | I B.met                                                                                                    |                                              |                 |           |
|                                        | Туре           | Anal.                  |                | Dil.         |       |                                                        | R                                                                                                          | lesult                                       |                 |           |
| Unkno                                  | wn             | NPOC                   |                |              | 1.00  | 0                                                      |                                                                                                            |                                              | NPOC:3.195 mg/L |           |
| 1. Det                                 |                |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| Anal.: I                               | NPOC           |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| No.                                    | Area           | Conc.                  | lnj. Vol.      | Aut.<br>Dil. | Ex.   |                                                        | Cal. Curve                                                                                                 | Date / Time                                  |                 |           |
| 1                                      | 34.29<br>32.90 | 3.261mg/L<br>3.129mg/L | 150ul<br>150ul |              |       |                                                        |                                                                                                            | 8/19/2021 4:48:56 PM<br>8/19/2021 4:51:48 PM |                 |           |
| Mean A<br>Mean C                       | Area           | 33.59<br>3.195         |                | <u> </u>     |       | Signal[mV] 20<br>14<br>7<br>-2                         |                                                                                                            |                                              | 4 16 18 20      | Time[min] |
| Sample                                 | :              |                        |                |              |       |                                                        |                                                                                                            |                                              |                 |           |
| Sample<br>Sample<br>Origin:<br>Chk. Re | ID:            |                        |                |              | <     | 05208-2<br>:Untitled><br>DOUBLE INJECTION              | B.met                                                                                                      |                                              |                 |           |

8/20/2021 8:28:40 AM





JL

Anal.: NPOC

TOC AQ 081921.t32

| JL                                               |                  |                |          |                |          |                                                      | 8/20/2021 8:28:40 AN | 1                          |             |    |           | Ť      | OC AQ 081921.t32 |
|--------------------------------------------------|------------------|----------------|----------|----------------|----------|------------------------------------------------------|----------------------|----------------------------|-------------|----|-----------|--------|------------------|
|                                                  |                  |                |          |                | .,       |                                                      |                      |                            |             |    |           |        |                  |
| No.                                              | Area             | Conc.          | Inj. Vo  | . Aut.<br>Dil. | Ex.      | Cal.                                                 | Curve                | ſ                          | Date / Time |    |           |        |                  |
| 1                                                | 33.78<br>32.29   | 3.213mg/L      |          |                | 1        | toc aq cal 072321.2021_0<br>toc aq cal 072321.2021_0 |                      | 8/19/2021 5<br>8/19/2021 5 |             |    |           |        |                  |
| ¥                                                | 32.29            | 3.071mg/L      |          | ιuu            | <u> </u> | *************                                        | 7_23_11_47_50.cai    | 0/19/20/210                | .04.45 PW   |    |           |        |                  |
| Mean A<br>Mean C                                 |                  | 33.03<br>3.142 |          |                |          | Signal[mV] 20<br>14<br>7<br>-2<br>0                  | 2 4                  | 6 8                        | 10 12       | 14 | 16        | 18 20  | Time[min]        |
| Sample<br>Sample<br>Sample<br>Origin:<br>Chk. Re | • Name:<br>• ID: |                |          |                |          | 905208-3<br>Untitled><br>DOUBLE INJECTION B.me       |                      |                            |             |    |           |        |                  |
|                                                  | Туре             | Anal.          |          | Dil            |          |                                                      |                      | Result                     |             |    |           |        |                  |
|                                                  |                  |                |          | L20.           |          |                                                      |                      | i leadit                   |             |    | 1000044   |        |                  |
| Unknov                                           | wn               | NPOC           |          |                | 1.00     | 9                                                    |                      |                            |             | r  | VPOC:3.16 | omg/⊔  |                  |
| 1. Det                                           |                  |                |          |                |          |                                                      |                      |                            |             |    |           |        |                  |
| Anal.: N                                         | POC              |                |          |                |          |                                                      |                      |                            |             |    |           |        |                  |
| No.                                              | Area             | Conc.          | Inj. Vol | Aut.           | Ex.      | Cal. (                                               | Curve                | C                          | Date / Time |    |           |        |                  |
| 1                                                | 33.75            | 3.210mg/L      | 150      | Dil.<br>uL 1   |          | toc aq cal 072321.2021_07                            | 7 23 11 47_50.cal    | 8/19/2021 5                | :14:16 PM   |    |           |        |                  |
| 2                                                | 32.81            | 3.120mg/L      |          |                | l        | toc aq cal 072321.2021_07                            | 7_23_11_47_50.cal    | 8/19/2021 5                |             |    |           |        |                  |
| Mean A<br>Mean C                                 |                  | 33.28<br>3.165 |          |                |          | Signal[mV] 20<br>14<br>7<br>-2                       |                      |                            |             |    |           |        |                  |
|                                                  |                  |                |          |                |          | 0                                                    | 2 4                  | 6 8                        | 10 12       | 14 | 16        | 18 20  | Time[min]        |
|                                                  |                  |                |          |                |          |                                                      |                      |                            |             |    |           |        |                  |
| Sample                                           |                  |                |          |                |          |                                                      |                      |                            |             |    |           |        |                  |
| Sample<br>Sample<br>Origin:<br>Chk. Re           | ID:              |                |          |                |          | 305208-4<br>:Untitled><br>SOUBLE INJECTION B.me      | ət                   |                            |             |    |           |        |                  |
|                                                  | Туре             | Ánal.          |          | Dil.           |          |                                                      |                      | Result                     |             |    |           |        |                  |
| Unknow                                           | vn               | NPOC           |          |                | 1.00     | 0                                                    |                      |                            |             | ٨  | IPOC:3.04 | 5 mg/L |                  |
| 1. Det                                           |                  |                |          |                |          |                                                      |                      |                            |             |    |           |        |                  |

| No. | Area  | Conc.     | lnj. Vol. | Aut.<br>Dil. | Ex. | Cal. Curve                                | Date / Time          |
|-----|-------|-----------|-----------|--------------|-----|-------------------------------------------|----------------------|
| 1   | 32.33 | 3.075mg/L | 150uL     | 1            |     | toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 5:26:45 PM |
| 2   | 31.70 | 3.015mg/L | 150uL     | 1            |     | toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 5:29:40 PM |

| JL                                                             |                                        | ·····                                                   | 8/20/2021 8:28:40 AM                                                                                               | FOC AQ 081921.132 |
|----------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------|
| Mean Area<br>Mean Conc.                                        | 32.02<br>3.045mg/L                     | Signal[mV]                                              | $\begin{array}{c} 20 \\ 14 \\ 7 \\ -2 \\ 0 \\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \\ 20 \\ \end{array}$ | Time[min]         |
| Sample<br>Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                                        | SO5208-5<br><untitled><br/>DOUBLE INJECT</untitled>     | /ION B.met                                                                                                         |                   |
| Туре                                                           | Anal. Dil.                             |                                                         | Result                                                                                                             |                   |
| Unknown                                                        | NPOC                                   | 1.000                                                   | NPOC:3.147 mg/L                                                                                                    |                   |
| 1. Det                                                         | ······································ |                                                         | ······································                                                                             |                   |
| Anal.: NPOC                                                    |                                        |                                                         |                                                                                                                    |                   |
| No. Area                                                       | Conc. Inj. Vol. Aut. E                 | <b>x</b> .                                              | Cal. Curve Date / Time                                                                                             |                   |
| 1 33.24                                                        | Dil.<br>3.161mg/L 150uL 1              |                                                         | 1.2021_07_23_11_47_50.cal 8/19/2021 5:39:26 PM                                                                     |                   |
| 2 32.94                                                        | 3.133mg/L 150uL 1                      |                                                         | 1.2021_07_23_11_47_50.cal 8/19/2021 5:42:16 PM                                                                     |                   |
| Mean Conc.                                                     | 3.147mg/L                              | Signal[mV]                                              | $\begin{array}{c} 20 \\ 14 \\ 7 \\ -2 \\ 0 \\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \\ 20 \\ \end{array}$ | Time[min]         |
| Sample                                                         |                                        |                                                         |                                                                                                                    |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result           |                                        | SO5208-5 MS<br><untitled><br/>DOUBLE INJECTI</untitled> | ION B.met                                                                                                          |                   |
| Туре                                                           | Anal. Dil.                             |                                                         | Result                                                                                                             |                   |
| Unknown                                                        | NPOC 1                                 | .000                                                    | NPOC:103.9 mg/L                                                                                                    |                   |
| 1. Det                                                         |                                        |                                                         |                                                                                                                    |                   |
| Anal.: NPOC                                                    |                                        |                                                         |                                                                                                                    |                   |
| No. Area                                                       | Conc. Inj. Vol. Aut. E.<br>Dil.        | <b>x</b> .                                              | Cal. Curve Date / Time                                                                                             |                   |
| 1 1100<br>2 1085                                               | 104.6mg/L 150uL 1<br>103.2mg/L 150uL 1 | toc aq cal 072321                                       | 1.2021_07_23_11_47_50.cal 8/19/2021.5:53:11 PM<br>1.2021_07_23_11_47_50.cal 8/19/2021.5:57:09 PM                   |                   |
| Mean Area<br>Mean Conc.                                        | 1093<br>103.9mg/L                      | Signal[mV]                                              | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                              | Time[min]         |
|                                                                |                                        |                                                         |                                                                                                                    |                   |

5/26

TOC AQ 081921.t32

Sample

JL

Sample Name: SO5208-5 MSD Sample ID: 
Untitled>
Origin: DOUBLE INJECTION B.met

1. Det

Anal.: NPOC

| No. Area              | Conc. Inj. Vol.   | Aut. Ex<br>Dil. |                      | Cal. Cun                        | ve       |        | Date           | e / Time |   |       |  |
|-----------------------|-------------------|-----------------|----------------------|---------------------------------|----------|--------|----------------|----------|---|-------|--|
| 1097                  | 104.3mg/L 150u    | 1               | toc ag cal 072321.20 | 021_07_2                        | 3_11_47  | 50.cal | 8/19/2021 6:08 | :06 PM   | 1 |       |  |
| 1086                  | 103.3mg/L 150u    | 1               | toc aq cal 072321.20 | 021_07_2                        | 3_11_47_ | 50.cal | 8/19/2021 6:11 | 56 PM    | j |       |  |
| ean Area<br>ean Conc. | 1092<br>103.8mg/L |                 | 3<br>2<br>1          | 400<br>300<br>200<br>100<br>-40 |          |        |                |          |   | 18 20 |  |

Sample

| Sample Name: |      |     | SO5208-7               |     |
|--------------|------|-----|------------------------|-----|
| Sample ID:   |      |     | <untitled></untitled>  |     |
| Origin:      |      |     | DOUBLE INJECTION B.met |     |
| Chk. Result  |      |     |                        |     |
|              |      |     |                        |     |
| Turne        | Anal | Dil |                        | Bac |

| Unknown NPOC 1.000 NPOC:3.163 mg/ | Туре    | Anal. | Dil. | Result          | - |
|-----------------------------------|---------|-------|------|-----------------|---|
|                                   |         |       |      |                 |   |
|                                   | Unknown | NPOC  |      | NPOC:3.163 mg/L |   |

1. Det

Anai.: NPOC

| No.    | Area  | Conc.     | Inj. Vol. | Aut.<br>Dil. | Ex. |                  | С      | al. C | Curve                   |      |                      |   |        | D      | ate / | Time |    |    |   |    |   |       |    |          |
|--------|-------|-----------|-----------|--------------|-----|------------------|--------|-------|-------------------------|------|----------------------|---|--------|--------|-------|------|----|----|---|----|---|-------|----|----------|
|        | 34.64 | 3.294mg/L | 150uL     | 1            |     | toc ag cal 07232 | 1.2021 | _07   | _23_                    | 1_47 | 50.cal               |   | 8/19/2 | 021 6: | 21:2  | 3 PM |    | 1  |   |    |   |       |    |          |
| Í      | 31.87 | 3.031mg/L | 150uL     | 1            |     | toc aq cal 07232 |        |       |                         |      |                      |   | 8/19/2 | 021 6: | 24:18 | 8 PM |    |    |   |    |   |       |    |          |
| lean A |       | 33.26     |           |              |     | Signal[mV]       | 20     | ſ     |                         | ŗ;-  | ····                 |   |        | 1 ;    |       |      |    |    |   |    |   | 1     | ·7 |          |
| ean (  | Conc. | 3.163     | mg/L      |              |     |                  | 14     |       |                         |      |                      |   |        |        |       |      |    |    |   |    | 1 |       |    |          |
|        |       |           |           |              |     |                  | 7      |       | $\overline{\mathbb{A}}$ |      | $\overline{\Lambda}$ |   |        |        |       |      |    |    |   |    |   | ••••• |    |          |
|        |       |           |           |              |     |                  | -2     | 12    | 11                      |      |                      |   |        |        |       |      |    |    |   |    |   |       |    |          |
|        |       |           |           |              |     |                  | _      | 0     |                         | 2    | 4                    | 6 |        | B      | 10    | i .  | 12 | 14 | Ļ | 16 |   | 18    | 20 | Time[min |

Control Sample

| Sampl<br>Sampl<br>Metho<br>Chk. F      | d:              |                           |         |              |                | CCV<br><untitled><br/>CCV DOUBLE II<br/>Control value: 99</untitled>   |                          |                                            | n range!                 |           |                                    |    |    |    |       |           |
|----------------------------------------|-----------------|---------------------------|---------|--------------|----------------|------------------------------------------------------------------------|--------------------------|--------------------------------------------|--------------------------|-----------|------------------------------------|----|----|----|-------|-----------|
|                                        | Туре            | Anal.                     |         | C            | Dil.           |                                                                        |                          | Result                                     |                          |           | -                                  |    |    |    |       |           |
| Contro                                 | N               | NPOC                      |         |              | 1.             | 000                                                                    |                          |                                            | NPOC:9                   | 19.10 mg/ |                                    |    |    |    |       |           |
| 1. Det.<br>Anal.:                      |                 |                           |         |              |                |                                                                        |                          |                                            |                          |           |                                    |    |    |    |       |           |
| No.                                    | Area            | Conc.                     | Inj. Vo |              | Aut. E<br>Dil. | <b>x</b> .                                                             | Cal.                     | Curve                                      |                          |           | Date / Ti                          | me | 7  |    |       |           |
| 1<br>2                                 | 1045<br>1039    | 99.38mg/L<br>98.81mg/L    |         | iOuL<br>iOuL | 1              | toc aq cal 0723<br>toc aq cal 0723                                     |                          |                                            |                          |           | /2021 6:35:31 (<br>/2021 6:39:39 ( |    |    |    |       |           |
| Mean (                                 |                 | 1042<br>99.11             | Dmg/L   |              |                | Signal[mV]                                                             | 300<br>200<br>100<br>-40 | /-\<br>D                                   | 2 4                      | 6         | 8 10                               | 12 | 14 | 16 | 18 20 | Time[min] |
| Sample<br>Sample<br>Method<br>Chk. R   | d:<br>Iesult    |                           |         |              |                | BLANK<br><untitled><br/>BLANK DOUBLE<br/>Control value: 0.1</untitled> | 1789 / Cor               | ntrol with                                 | in range!                |           |                                    |    |    |    |       |           |
|                                        | Туре            | Anal.                     |         | D            | Dil.           |                                                                        | 1                        | Result                                     |                          |           |                                    |    |    |    |       |           |
| Contro<br>1. Det.<br>Anal.: I          |                 | NPOC                      |         |              | 1.(            | 00                                                                     |                          |                                            | NPOC:0.                  | 1789 mg/l |                                    |    |    |    |       |           |
| No.                                    | Area            | Conc.                     | Inj. Vo | C            | ut. E<br>Dil.  | <b>x</b> .                                                             |                          | Curve                                      |                          |           | Date / Ti                          |    |    |    |       |           |
| 1<br>2                                 | 2.946<br>0.8164 | 0.2802mg/L<br>0.07764mg/L |         | OuL<br>OuL   | 1              | toc aq cai 07232<br>toc aq cai 07232                                   | 1.2021_0<br>1.2021_0     | 7_23_1 <sup>+</sup><br>7_23_1 <sup>+</sup> | _47_50.cal<br>_47_50.cal |           | /2021 6:48:48 F<br>/2021 6:51:00 F |    |    |    |       |           |
| Mean /<br>Mean (                       |                 | 1.881<br>0.178            | 9mg/L   |              |                | Signal[mV]                                                             | 20<br>14<br>7<br>-2<br>0 | 2                                          | 4                        | 6         | 8 10                               | 12 | 14 | 16 | 18 20 | Time[min] |
| Sample                                 | •               |                           |         |              |                |                                                                        |                          |                                            |                          |           |                                    |    |    |    |       |           |
| Sample<br>Sample<br>Origin:<br>Chk. Re |                 |                           |         |              |                | SO5208-8<br><untitled><br/>DOUBLE INJECT</untitled>                    | ION B.m                  | et                                         |                          |           |                                    |    |    |    |       |           |
|                                        | Tune            | Anal                      | 1       |              | Dit            |                                                                        |                          |                                            |                          | Besul     |                                    |    |    |    |       |           |

8/20/2021 8:28:40 AM

JL

TOC AQ 081921.t32

ĴL.

8/20/2021 8:28:40 AM

TOC AQ 081921.132

# 1. Det

| Anal.:                                          | NPOC                   |                          |            |                   |                                                                                                     |                                                                                |                                              |                    |          |
|-------------------------------------------------|------------------------|--------------------------|------------|-------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------|--------------------|----------|
| No.                                             | Area                   | Conc.                    | Inj. Vol.  | Aut.              | Ex.                                                                                                 | Cal. Curve                                                                     | Date / Time                                  |                    |          |
| 1                                               | 32.43                  | 3.084mg/L                | 150uL      | D∦.<br>1          | too                                                                                                 | aq cal 072321.2021_07_23_11_47_50.cal                                          | 8/19/2021 7:00:54 PM                         |                    |          |
| 2                                               | 32.42                  | 3.083mg/L                |            |                   | tor                                                                                                 | aq cal 072321.2021_07_23_11_47_50.cal                                          | 8/19/2021 7:03:59 PM                         |                    |          |
| Mean .<br>Mean I                                |                        | 32.4;<br>3.084           | 2<br>4mg/L |                   | Si                                                                                                  | [mv] 20 $14$ $7$ $-2$ $0$ $2$ $4$                                              | 6 8 10 12                                    | 14 16 18 20        | Time[mir |
| Sample<br>Sample<br>Sample<br>Origin:<br>Chk. R | e Name:<br>e ID:       |                          |            |                   | <ur< td=""><td>5208-9<br/>titled&gt;<br/>JBLE INJECTION B.met</td><td></td><td></td><td></td></ur<> | 5208-9<br>titled><br>JBLE INJECTION B.met                                      |                                              |                    |          |
|                                                 | Туре                   | Anal.                    | 1          | Dil.              |                                                                                                     |                                                                                | Result                                       |                    |          |
| Unkno                                           |                        | NPOC                     |            |                   | 1.000                                                                                               |                                                                                |                                              | NPOC:0.1631 mg/L   |          |
|                                                 | 4411                   | NEOG                     |            |                   | 1.000                                                                                               |                                                                                |                                              | NF OC.0.10331/hg/L |          |
| 1. Det                                          |                        |                          |            |                   |                                                                                                     |                                                                                |                                              |                    |          |
| Anal.: I                                        | NPOC                   |                          |            |                   |                                                                                                     |                                                                                |                                              |                    |          |
| No.                                             | Area                   | Conc.                    | lnj. Vol.  | Aut.              | Ex.                                                                                                 | Cal. Curve                                                                     | Date / Time                                  | ٦                  |          |
|                                                 | -                      |                          | -          | Dil.              |                                                                                                     |                                                                                |                                              |                    |          |
| 2                                               | 1.903<br>1.527         | 0.1810mg/L<br>0.1452mg/L |            | 1                 | toc                                                                                                 | aq cal 072321.2021_07_23_11_47_50.cal<br>aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 7:12:56 PM<br>8/19/2021 7:15:12 PM | _                  |          |
| ti i ninda                                      |                        |                          |            | it.               |                                                                                                     |                                                                                | 1                                            |                    |          |
| Mean (<br>Mean (                                |                        | 1.715<br>0.163           | 9<br>1mg/L |                   | 5                                                                                                   | gnal[mV] 20<br>14<br>7<br>-2<br>0 2 4                                          | 6 8 10 12                                    | 14 16 18 20        | Time[min |
| Sample                                          | 9                      |                          |            |                   |                                                                                                     |                                                                                |                                              |                    |          |
|                                                 | e Name:<br>e ID:       |                          |            |                   | <un< td=""><td>248-1<br/>ititled&gt;<br/>JBLE INJECTION B.met</td><td></td><td></td><td></td></un<> | 248-1<br>ititled><br>JBLE INJECTION B.met                                      |                                              |                    |          |
|                                                 | Туре                   | Anal.                    |            | Dil.              |                                                                                                     |                                                                                | Result                                       |                    |          |
| Unknov                                          |                        | NPOC                     |            |                   | 1.000                                                                                               |                                                                                |                                              | NPOC:4.135 mg/L    |          |
|                                                 |                        | - ALCO                   |            |                   | 1.000                                                                                               |                                                                                |                                              | ALCONTROL          |          |
| 1. Det<br>Anal.: N                              |                        |                          |            |                   |                                                                                                     |                                                                                |                                              |                    |          |
| -1181.: P                                       |                        |                          |            |                   |                                                                                                     |                                                                                |                                              | _                  |          |
|                                                 |                        | Conc.                    | Int Mal    |                   |                                                                                                     | Cal. Curve                                                                     | Date / Time                                  | í.                 |          |
| No.                                             | Area                   | Conc.                    | Inj. Vol.  | Aut.<br>Dil.      | Ex.                                                                                                 | Cal. Curve                                                                     | Date / Thing                                 |                    |          |
| No.                                             | Area<br>43.81<br>43.15 | 4.166mg/l.<br>4.104mg/l. | 150uL      | Aut.<br>Dil.<br>1 | toc                                                                                                 | aq cal 072321.2021_07_23_11_47_50.cal<br>aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 7:24:52 PM<br>8/19/2021 7:27:45 PM |                    |          |

| JL                                                   |                                     |                           |                                                     | 8/20/2021 8:28:40 AM                                                                                                                                                                                                                                                                                                             | TOC AQ 081921.132 |
|------------------------------------------------------|-------------------------------------|---------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Mean Area<br>Mean Conc.                              | 43.48<br>4.135mg/L                  |                           | Signal[mV]                                          | $\begin{array}{c} 20 \\ 14 \\ 7 \\ -2 \\ 0 \\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \\ 20 \\ \end{array}$                                                                                                                                                                                                               | Time[min]         |
| Sample                                               |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                                     |                           | SO5248-2<br><untitled><br/>DOUBLE INJECT</untitled> | ION B.met                                                                                                                                                                                                                                                                                                                        |                   |
| Туре                                                 | Anal.                               | Dil.                      |                                                     | Result                                                                                                                                                                                                                                                                                                                           |                   |
| Unknown                                              | NPOC                                | 1.                        | 000                                                 | NPOC:3.305 mg/L                                                                                                                                                                                                                                                                                                                  |                   |
| 1. Det                                               |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| Anal.: NPOC                                          |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| No. Area                                             | Conc. Inj. Vo                       |                           | -                                                   | Cal. Curve Date / Time                                                                                                                                                                                                                                                                                                           |                   |
| 1 35.19                                              |                                     | Dil.<br>OuL 1             | toc aq cal 07232                                    | 1.2021_07_23_11_47_50.cal 8/19/2021 7:37:18 PM                                                                                                                                                                                                                                                                                   |                   |
| 2 34.31                                              | 3.263mg/L 150                       | 0ut. 1                    | toc aq cal 07232                                    | 1.2021_07_23_11_47_50.cal                                                                                                                                                                                                                                                                                                        |                   |
| Mean Conc.                                           | 3.305mg/L                           |                           |                                                     | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                             | Time[min]         |
| Sample                                               |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                                     |                           | SO5248-3<br><untitled><br/>DOUBLE INJECT</untitled> | ION B.met                                                                                                                                                                                                                                                                                                                        |                   |
| Туре                                                 | Anal.                               | Dil.                      |                                                     | Result                                                                                                                                                                                                                                                                                                                           |                   |
| Unknown                                              | NPOC                                | 1.0                       | 000                                                 | NPOC:3.134 mg/L                                                                                                                                                                                                                                                                                                                  |                   |
| 1. Det                                               |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| Anal.: NPOC                                          |                                     |                           |                                                     |                                                                                                                                                                                                                                                                                                                                  |                   |
| No. Area                                             | Conc. Inj. Vol                      | I. Aut. Ex.               |                                                     | Cal. Curve Date / Time                                                                                                                                                                                                                                                                                                           |                   |
| 1 32.90                                              | 3.129mg/L 150<br>3.139mg/L 150      |                           | toc aq cal 072321                                   | .2021_07_23_11_47_50.cal 8/19/2021 7:49:56 PM<br>.2021_07_23_11_47_50.cal 8/19/2021 7:52:48 PM                                                                                                                                                                                                                                   |                   |
| 2 33.01<br>Mean Area<br>Mean Conc.                   | 3.139mg/L 150<br>32.95<br>3.134mg/L | л <u>иц</u> 1 <sub></sub> | Signal[mV]                                          | 20<br>14<br>7<br>-2<br>0<br>2<br>4<br>6<br>8<br>10<br>12<br>14<br>16<br>18<br>20<br>14<br>7<br>-2<br>0<br>2<br>4<br>6<br>8<br>10<br>12<br>14<br>16<br>18<br>20<br>14<br>14<br>14<br>16<br>18<br>20<br>14<br>14<br>14<br>16<br>18<br>20<br>14<br>14<br>14<br>15<br>14<br>16<br>16<br>16<br>16<br>16<br>16<br>16<br>16<br>16<br>16 | Time[min]         |

Sample

JL

| Sample ID: <untitled></untitled> | Origin: | SO5248-4<br><untitled><br/>DOUBLE INJECTION B.met</untitled> |
|----------------------------------|---------|--------------------------------------------------------------|
|----------------------------------|---------|--------------------------------------------------------------|

| Туре    | Anal. | Dil,  | Result |                 |
|---------|-------|-------|--------|-----------------|
| Unknown | NPOC  | 1.000 |        | NPOC:2.965 mg/L |

#### 1. Det

#### Anal.: NPOC

| No.              | Area          | Conc.          | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | (             | Cal. Curve | B        |        |    | (         | Date / T | lime |   |    |    |   |                                       |    |          |
|------------------|---------------|----------------|-----------|--------------|-----|------------------|---------------|------------|----------|--------|----|-----------|----------|------|---|----|----|---|---------------------------------------|----|----------|
|                  | 31.40         | 2.986mg/L      | 150uL     | 1            |     | toc aq cal 07232 | 1.202         | 1_07_23    | _11_47_  | 50.cal | 8/ | 19/2021 8 | :02:19   | PM   |   |    |    |   |                                       |    |          |
| 2                | 30.95         | 2.943mg/L      | 150uL     | 1            |     | toc aq cal 07232 | 1.202         | 1_07_23    | _11_47_! | 50.cal | 8/ | 19/2021 8 | :05:03   | PM   |   |    |    |   |                                       |    |          |
| Mean .<br>Mean I | Area<br>Conc. | 31.18<br>2.965 |           |              |     | Signal[mV]       | 20<br>14<br>7 |            |          |        |    |           |          |      |   |    |    |   | · · · · · · · · · · · · · · · · · · · |    |          |
|                  |               |                |           |              |     |                  | -2            | 0          | 2        | 4      | 6  | 8         | 10       | 1    | 2 | 14 | 16 | 3 | 18                                    | 20 | Time[min |

#### Sample

| Sample Name:<br>Sample ID: | SO5248-5<br><untitled></untitled> |
|----------------------------|-----------------------------------|
| Origin:                    | DOUBLE INJECTION B.met            |
| Chk. Result                |                                   |

| Туре    | Anal. | Dil.  | Result          |
|---------|-------|-------|-----------------|
| Unknown | NPOC  | 1.000 | NPOC:3.005 mg/L |

# 1. Det

# Anal.: NPOC

| No.            | Area          | Conc.          | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | С             | al. C | Curve  |      |          |   |          | Di     | ate / Ti | me |                       |    |                                           |          |    |   |    |          |
|----------------|---------------|----------------|-----------|--------------|-----|------------------|---------------|-------|--------|------|----------|---|----------|--------|----------|----|-----------------------|----|-------------------------------------------|----------|----|---|----|----------|
|                | 31.80         | 3.024mg/L      | 150u      | 1            |     | toc ag cal 07232 | 21.2021       | _07   | _23_1  | 1_47 | _50.cal  |   | 8/19/202 | 21 8:1 | 14:46 I  | PM |                       |    |                                           |          |    |   |    |          |
|                | 31.39         | 2.985mg/L      | 150ul     | 1            |     | toc aq cal 07232 | 21.2021       | _07   | _23_1  | 1_47 | _50.cal  |   | 8/19/20  | 21 8:1 | 17:32    | PM |                       | ]  |                                           |          |    |   |    |          |
| ean /<br>ean ( | Area<br>Conc. | 31.59<br>3.005 |           |              |     | Signal[mV]       | 20<br>14<br>7 |       | <br>// |      |          |   |          |        |          |    | *<br>*<br>*<br>*<br>* |    | 4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5 | <br>     |    |   |    |          |
|                |               |                |           |              |     |                  | -2            |       | 45     |      | <u> </u> |   |          |        |          |    |                       |    | ;<br>;                                    | <u> </u> |    |   |    |          |
|                |               |                |           |              |     |                  |               | 0     | 2      |      | 4        | 6 | 8        |        | 10       | 12 | 2                     | 14 | 1                                         | 6        | 18 | 3 | 20 | TimeImir |

### Sample

| JL                                                   |                    |                 | 8/20/2021 8:28:40 AM                                           | OC AQ 081921.132 |
|------------------------------------------------------|--------------------|-----------------|----------------------------------------------------------------|------------------|
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                    |                 | SO5248-6<br><untiled><br/>DOUBLE INJECTION B.met</untiled>     |                  |
| Туре                                                 | Anal.              | Dil.            | Result                                                         |                  |
| Unknown                                              | NPOC               | 1.0             | 00 NPOC:3.023 mg/L                                             |                  |
| 1. Det                                               |                    |                 |                                                                |                  |
| Anal.: NPOC                                          |                    |                 |                                                                |                  |
| No. Area                                             | Conc. Inj.         | Vol. Aut. Ex.   | Cal. Curve Date / Time                                         |                  |
| 1 31.86                                              | 3.030mg/L          | Dil.<br>150uL 1 | toc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 8:27:05 PM |                  |
| 2 31.71                                              | 3.016mg/L 1        | 150uL 1         | toc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 8:30:04 PM |                  |
| Mean Area<br>Mean Conc.                              | 31.79<br>3.023mg/L |                 | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20  | Time[min]        |
| Sample                                               |                    |                 |                                                                |                  |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                    |                 | SO5248-7<br><untitled><br/>DOUBLE INJECTION B.met</untitled>   |                  |
| Туре                                                 | Anal.              | Dil.            | Result                                                         |                  |
| Unknown                                              | NPOC               | 1.0             | 00 NPOC:3.052 mg/L                                             |                  |
| 1. Det                                               |                    |                 |                                                                |                  |
| Anal.: NPOC                                          |                    |                 |                                                                |                  |
| No. Area                                             | Conc. Inj. V       |                 | Cal. Curve Date / Time                                         |                  |
| 1 32.55                                              | 3.096mg/L 1        | Dil.<br>150uL 1 | toc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 8:39:51 PM |                  |
| 2 31.64                                              | 3.009mg/L 1        | 50uL 1          | toc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 8:42:39 PM |                  |
| Mean Area<br>Mean Conc.                              | 32.09<br>3.052mg/L |                 | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20  | Time[min]        |
| Sample                                               |                    |                 |                                                                |                  |
|                                                      |                    |                 | SO5248-8<br><untitled><br/>DOUBLE INJECTION B.met</untitled>   |                  |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                    |                 |                                                                |                  |
| Sample ID:<br>Origin:                                | Anal.              |                 | Result                                                         |                  |

JL

TOC AQ 081921.132

#### 1. Det

| 1     38.13     3.6       2     33.37     3.1       Mean Area<br>Mean Conc.     Mean Conc.       Control Sample     Sample Name:<br>Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result       Type       Control     NPOC       1. Det.       Anal.: NPOC       No.     Area       Cor       1     1049       99.                                                                                                                               | 8.626mg/L<br>8.174mg/L<br>35.75<br>3.400mg/                                          | Dil.                                                     | toc aq cal 07232<br>Signal[mV]<br>CCV<br><untitled><br/>CCV DOUBLE IN<br/>Control value: 99.1<br/>0000</untitled>          | 52 / Control within range!<br>Result<br>NPOC:99<br>Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Date / Time           8/19/2021 8:52:18 PM           8/19/2021 8:55:21 PM           6         8           6         8           10         12           14         16           16         18           17         14           16         18           17         14           16         18           17         14           16         18           17         14           18         20           19.52 mg/L |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2         33.37         3.1           Mean Area<br>Mean Conc.         Mean Conc.           Control Sample         Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result           Type         Control           NPOC         NPOC           1. Det.         Anal.: NPOC           No.         Area         Cor           1         1049         99,           2         1044         99,           Mean Area         Mean Area         Mean Area | 1. 174mg/L<br>35.75<br>3. 400mg/<br>Anal.<br>C<br>0nc. Inj<br>9. 76mg/L<br>9. 29mg/L | 150uL 1<br>150uL 1<br>VL<br>JUL<br>JUL<br>JUL<br>150uL 1 | toc aq cal 07232<br>Signal[mV]<br>CCV<br><untitled><br/>CCV DOUBLE IN<br/>Control value: 99.1<br/>0000</untitled>          | 12021_07_23_11_47_50.cal           20           14           7           -2           0         2           0         2           9           20           14           7           -2           0           2           0           2           1           2           1           2           1           2           1           2           1           2           1           2           1           2           1           2           1           2           2           2           2           3           4           1           1           1           1           1           1           1           1           1           1           1           1           1 | 9/19/2021 8:55:21 PM                                                                                                                                                                                                                                                                                                                                                                                               |
| Mean Area<br>Mean Conc.<br>Control Sample<br>Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result<br>Chk. Result<br>Control NPOC<br>1. Det.<br>Anal.: NPOC<br>No. Area Cor<br>1 1049 99.<br>2 1044 99.<br>Mean Area                                                                                                                                                                                                                              | 35.75<br>3.400mg/<br>Anal.<br>C<br>onc. Inj<br>9.76mg/L<br>9.29mg/L                  | j. Vol. Aut. E<br>Dil.<br>1.0<br>150uL 1                 | Signal[mV]<br>CCV<br><untitled><br/>CCV DOUBLE IN.<br/>Control value: 99.1<br/>000<br/>Ex.<br/>toc aq cal 07232</untitled> | 20<br>14<br>7<br>-2<br>0<br>2<br>4<br>JECTION.tpl<br>52 / Control within range!<br>Result<br>NPOC:95<br>Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6 8 10 12 14 16 18 20 Time                                                                                                                                                                                                                                                                                                                                                                                         |
| Mean Conc. Control Sample Sample Name: Sample ID: Method: Chk. Result Control NPOC 1. Det. Anal.: NPOC No. Area Cor 1 1049 99, 2 1044 99, Mean Area                                                                                                                                                                                                                                                                                              | 3.400mg/<br>Anal.<br>C<br>onc. Inj<br>9.76mg/L<br>9.29mg/L                           | Dil.<br>1.4<br>j. Vol. Aut. E<br>Dil.<br>150uL 1         | CCV<br><untitled><br/>CCV DOUBLE IN<br/>Control value: 99.1<br/>000</untitled>                                             | 14<br>7<br>-2<br>0 2 4<br>JECTION.tpl<br>52 / Control within range!<br>Result<br>NPOC:95<br>Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9.52 mg/L                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result<br>Control NPOC<br>1. Det.<br>Anal.: NPOC<br>No. Area Cor<br>1 1049 99.<br>2 1044 99.<br>Mean Area                                                                                                                                                                                                                                                                                          | C Inj<br>onc. Inj<br>9.76mg/L<br>9.29mg/L                                            | j. Vol. Aut. E<br>Dil.<br>150uL 1                        | <untitled><br/>CCV DOUBLE IN.<br/>Control value: 99.1<br/>0000</untitled>                                                  | 52 / Control within range!<br>Result<br>NPOC:99<br>Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Number NPOC           Type           Control         NPOC           1. Det.           Anal.: NPOC           No.         Area           Cor           1         1049         99.           2         1044         99.                                                                                                                                                                                                                             | C Inj<br>onc. Inj<br>9.76mg/L<br>9.29mg/L                                            | j. Vol. Aut. E<br>Dil.<br>150uL 1                        | <untitled><br/>CCV DOUBLE IN.<br/>Control value: 99.1<br/>0000</untitled>                                                  | 52 / Control within range!<br>Result<br>NPOC:99<br>Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Control         NPOC           1. Det.         Anal.: NPOC           No.         Area         Cor           1         1049         99.           2         1044         99.           Mean Area         Mean Area         Mean Area                                                                                                                                                                                                              | C Inj<br>onc. Inj<br>9.76mg/L<br>9.29mg/L                                            | j. Vol. Aut. E<br>Dil.<br>150uL 1                        | Ex.<br>toc aq cal 07232                                                                                                    | NPOC:99                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1. Det.           Anal.: NPOC           No.         Area           Cor           1         1049           2         1044           99.           Mean Area                                                                                                                                                                                                                                                                                       | onc. Inj<br>9.76mg/L<br>9.29mg/L                                                     | ij. Vol. Aut. E<br>Dil.<br>150ut 1                       | Ex.<br>toc aq cal 07232                                                                                                    | Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1. Det.           Anal.: NPOC           No.         Area           Cor           1         1049           2         1044           99.           Mean Area                                                                                                                                                                                                                                                                                       | onc. Inj<br>9.76mg/L<br>9.29mg/L                                                     | ij. Vol. Aut. E<br>Dil.<br>150ut 1                       | Ex.<br>toc aq cal 07232                                                                                                    | Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 99.52mg/                                                                             | n.                                                       | Signal[mV]                                                                                                                 | $\begin{array}{c} 400\\ 300\\ 200\\ 100\\ -40\\ 0\\ 2 \end{array}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8/19/2021 9:06:32 PM         8/19/2021 9:10:21 PM         6       8         6       8       10       12       14       16       18       20       Time                                                                                                                                                                                                                                                             |
| Control Sample                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      |                                                          |                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                      |                                                          | BLANK<br><untitled><br/>BLANK DOUBLE<br/>Control value: 0.10</untitled>                                                    | INJECTION.tpl<br>026 / Control within range!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Туре                                                                                                                                                                                                                                                                                                                                                                                                                                             | Anal.                                                                                | Dil.                                                     |                                                                                                                            | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Control NPOC                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2                                                                                    | 1.0                                                      | DOO                                                                                                                        | NPOC:0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1026 mg/L                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1. Det.                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                      |                                                          |                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Anal.: NPOC                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                      |                                                          |                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| No. Area Con                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |                                                          | - <b>v</b>                                                                                                                 | Cal. Curve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date / Time                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1 2.158 0.20<br>2 0.000 0.0                                                                                                                                                                                                                                                                                                                                                                                                                      | onc. Inj.                                                                            | j. Vol. Aut. E<br>Dil.                                   | -^-                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                    |

| JL.                                                  |                                                                                              | 8/20/2021 8:28:40 AM                                                                   | A                                                                             | TOC AQ 081921.132 |
|------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------|
| Mean Area<br>Mean Conc.                              | 1.079<br>0.1026mg/L                                                                          | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4                                                | 6 8 10 12 14 16 18 20                                                         | ) Time[min]       |
| Sample<br>Sample Name:<br>Sample ID:                 |                                                                                              | 605248-9<br>:Untitled>                                                                 |                                                                               |                   |
| Origin:<br>Chk. Result                               |                                                                                              | OOUBLE INJECTION B.met                                                                 |                                                                               |                   |
| Type<br>Unknown                                      | Anal. Dil.<br>NPOC 1                                                                         | 0                                                                                      | Result NPOC:2.846 mg/L                                                        |                   |
| 1. Det                                               | ,, <b>,</b> ,                                                                                |                                                                                        |                                                                               |                   |
| Anal.: NPOC                                          |                                                                                              |                                                                                        |                                                                               |                   |
| No. Area                                             | Conc. Inj. Vol. Aut. E<br>Dil.                                                               | Cal. Curve                                                                             | Date / Time                                                                   |                   |
| 1 29.15<br>2 30.71                                   | 2.772mg/L 150uL 1<br>2.921mg/L 150uL 1                                                       | toc aq cal 072321.2021_07_23_11_47_50.cal<br>toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 9:31:37 PM<br>8/19/2021 9:34:22 PM                                  |                   |
| Mean Area<br>Mean Conc.                              | 29.93<br>2.846mg/L                                                                           | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4                                                | 6         8         10         12         14         16         18         20 | ) Time[min]       |
| Sample                                               |                                                                                              |                                                                                        |                                                                               |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                                                                                              | 05248-10<br>Untitled><br>00UBLE INJECTION B.met                                        |                                                                               |                   |
| Туре                                                 | Anal. Dil.                                                                                   |                                                                                        | Result                                                                        |                   |
| Unknown                                              | NPOC 1                                                                                       |                                                                                        | NPOC:2.946 mg/L                                                               |                   |
| 1. Det                                               |                                                                                              |                                                                                        |                                                                               |                   |
| Anal.: NPOC                                          | Conc. Inj. Vol. Aut. E                                                                       | Cal. Curve                                                                             | Date / Time                                                                   |                   |
| 1 30.67<br>2 31.28                                   | Dil.           2.917mg/L         150uL         1           2.975mg/L         150uL         1 | toc aq cal 072321.2021_07_23_11_47_50.cal<br>toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 9:43:48 PM<br>8/19/2021 9:46:38 PM                                  |                   |
| Mean Area<br>Mean Conc.                              | 30.98<br>2.946mg/L                                                                           | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4                                                | 6 8 10 12 14 16 18 20                                                         | Time[min]         |

TOC AQ 081921.t32

Sample

JL

Sample Name: Sample ID: Origin: Chk. Result

| Туре    | Anal. | Dil.  | Result           |
|---------|-------|-------|------------------|
| Unknown | NPOC  | 1.000 | NPOC:0.2553 mg/L |

SO5248-11

<Untitled> DOUBLE INJECTION B.met

# 1. Det

Anal.: NPOC

| No.          | Area  | Conc.          | inj. Vol.   | Aut.<br>Dil. | Ex. |                  |                     | Cal. C | urve  |       |       |     |        | Date / Ti |    |    |    |    |    |           |
|--------------|-------|----------------|-------------|--------------|-----|------------------|---------------------|--------|-------|-------|-------|-----|--------|-----------|----|----|----|----|----|-----------|
| 1            | 2.856 | 0.2716mg/L     | 150ul       | <u>[</u>     | 1   | toc aq cal 07232 | 1.20                | 1_07_  | 23_11 | 47_50 | ).cal | 8/1 | 9/2021 | 9:55:42   | PM |    |    |    |    |           |
| 2            | 2.513 | 0.2390mg/L     | 150uL       |              | ľ   | toc aq cal 07232 | 1.20                | 21_07_ | 23_11 | 47_50 | ).cal | 8/1 | 9/2021 | 9:58:00   | PM |    |    |    |    |           |
| Mean<br>Mean |       | 2.684<br>0.255 | i<br>53mg/L |              |     | Signal[mV]       | 2(<br>14<br>7<br>-2 | ,      |       |       |       |     |        |           |    |    |    |    |    |           |
|              |       |                |             |              |     |                  |                     | 0      | 2     | 4     | 4     | 6   | 8      | 10        | 12 | 14 | 16 | 18 | 20 | Time[min] |

## Sample

| Sample Name:           | SO5254-1               |
|------------------------|------------------------|
| Sample ID:             | <untitled></untitled>  |
| Origin:<br>Chk. Result | DOUBLE INJECTION B.met |

| Туре    | Anal. | Dil.  | Result           |
|---------|-------|-------|------------------|
| Unknown | NPOC  | 1.000 | NPOC:0.9044 mg/L |

# 1. Det

#### Anal.: NPOC

| No.                | Area  | Conc.          | inj. Vol. | Aut.<br>Dil. | Ex. |                  | С             | al. Curve | }     |         |            |      |       | Date / | ' Time |    |    |     |    |    |    |          |
|--------------------|-------|----------------|-----------|--------------|-----|------------------|---------------|-----------|-------|---------|------------|------|-------|--------|--------|----|----|-----|----|----|----|----------|
| 1                  | 9 572 | 0.9103mg/L     | 150uL     | 1            |     | toc ag cal 07232 | 1.2021        | _07_23    | 11_47 | 7_50.ca | <b>`</b> - | 8/19 | /2021 | 10:07: | 15 PN  | Λ  |    |     |    |    |    |          |
| 2                  | 9.447 | 0.8984mg/L     | 150uL     | 1            |     | toc ag cal 07232 | 1.2021        | _07_23    | 11_47 | 7_50.ca |            | 8/19 | /2021 | 10:09: | 51 PN  | ٨  |    |     |    |    |    |          |
| vlean /<br>Vlean ( |       | 9.510<br>0.904 | 4mg/L     |              |     | Signal[mV]       | 20<br>14<br>7 |           |       |         |            |      |       |        |        |    |    |     |    |    |    |          |
|                    |       |                |           |              |     |                  | -2            | 0         | 2     | 4       | 6          | }    | 8     | 10     | )      | 12 | 14 | , · | 16 | 18 | 20 | Time[mir |

#### Sample

| JL                                                             |                 |           |      |       | 8/20/2021 8:28:40 AM                                           | TOC AQ 081921.132 |
|----------------------------------------------------------------|-----------------|-----------|------|-------|----------------------------------------------------------------|-------------------|
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result           |                 |           |      | <     | :05254-2<br>Unitiled><br>:OUBLE INJECTION B.met                |                   |
| Туре                                                           | Anal.           |           | Dil. |       | Result                                                         |                   |
| Unknown                                                        | NPOC            |           |      | 1.00  | NPOC:0.5664 mg/L                                               |                   |
| 1. Det                                                         |                 |           |      |       |                                                                |                   |
| Anal.: NPOC                                                    |                 |           |      |       |                                                                |                   |
| No. Area                                                       | Conc.           | Inj. Vol. | Aut. | Ex.   | Cal. Curve Date / Time                                         |                   |
| 1 5.532                                                        | 0.5261mg/L      | 150uL     | Dil. |       | oc ag cal 072321.2021_07_23_11_47_50.cal 8/19/2021 10:19:02 PM |                   |
| 2 6.380                                                        | 0.6068mg/L      | 150ul     |      |       | oc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 10:21:39 PM |                   |
| Mean Area<br>Mean Conc.                                        | 5.956<br>0.5664 | ŧmg/L     |      | ;     | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20  | Time[min]         |
| Sample<br>Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                 |           |      | <     | O5254-3<br>Untitled><br>OUBLE INJECTION B.met                  |                   |
| Туре                                                           | Anal.           |           | Dil. |       | Result                                                         |                   |
| Unknown                                                        | NPOC            |           |      | 1.000 | NPOC:1.005 mg/L                                                |                   |
| 1. Det                                                         |                 |           |      |       |                                                                |                   |
| Anal.: NPOC                                                    |                 |           |      |       |                                                                |                   |
| No. Area                                                       | Conc.           | Inj. Vol. | Aut. | Ex.   | Cal. Curve Date / Time                                         |                   |
| 1 10.54                                                        | 1.002mg/L       | 150uL     | Dil. |       | oc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 10:30:59 PM |                   |
| 2 10.60                                                        | 1.008mg/L       | 150uL     |      |       | oc aq cal 072321.2021_07_23_11_47_50.cal 8/19/2021 10:33:34 PM |                   |
| Mean Area<br>Mean Conc.                                        | 10.57<br>1.005n | ng/L      |      | :     | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20  | Time[min]         |
|                                                                |                 |           |      |       |                                                                |                   |
| Sample<br>Sample Name:                                         |                 |           |      |       | D5254-4                                                        |                   |
|                                                                |                 |           |      | <     | O5254-4<br>J⊓titled><br>OUBLE INJECTION B.met                  |                   |
| Sample Name:<br>Sample ID:<br>Origin:                          | Anal.           |           | Dil. | <     | Jntitled>                                                      |                   |

15/26

JL

# 1. Det

| Anal.:                              | NPOC           |                          |             |              |          |                                          |                                                     |                    |          |                              |     |    |          |          |    |           |
|-------------------------------------|----------------|--------------------------|-------------|--------------|----------|------------------------------------------|-----------------------------------------------------|--------------------|----------|------------------------------|-----|----|----------|----------|----|-----------|
| No.                                 | Area           | Conc.                    | Inj. Vol.   | Aut.<br>Dil. | Ex.      |                                          | Cal. Curve                                          |                    |          | Date / Tim                   | 1e  |    |          |          |    |           |
| 1                                   | 3.634<br>3.695 | 0.3456mg/L               |             | Ľ            | 1        |                                          | 1.2021_07_23_11_47<br>1.2021_07_23_11_47            |                    |          | 1 10:42:42 F<br>1 10:45:06 F |     |    |          |          |    |           |
| ۲                                   |                | 0.3514mg/l               | ·           | Ц            | sj       |                                          |                                                     | _50.cai            | 0/19/202 | 1 10.45:00 P                 |     | l  |          |          |    |           |
| Mean<br>Mean                        |                | 3.66<br>0.34             | 5<br>85mg/L |              |          | Signal[mV]                               | 20<br>14<br>7<br>-2<br>0 2                          | 4                  | 6 8      | 10                           | 12  | 14 | 16       | 18       | 20 | Time[min] |
|                                     | le Name:       |                          |             |              |          | SO5254-6                                 |                                                     |                    |          |                              |     |    |          |          |    |           |
| Sampl<br>Origin:<br>Chk. F          | :              |                          |             |              |          | <untitled><br/>DOUBLE INJECTI</untitled> | ION B.met                                           |                    |          |                              |     |    |          |          |    |           |
|                                     | Туре           | Anal.                    |             | Dil          |          |                                          |                                                     |                    | Result   |                              |     |    |          | ·7       |    |           |
| Jnkna                               | พก             | NPOC                     |             |              | 1.00     | 10                                       |                                                     |                    |          |                              |     | N  | POC:0.57 | '00 mg/L |    |           |
| I. Det<br>Anal.:<br>No.             | NPOC<br>Area   | Conc.                    | Inj. Vol.   | Aut.         | Ex.      |                                          | Cal. Curve                                          |                    |          | Date / Tim                   | e   |    |          |          |    |           |
| 1                                   | 6.066<br>5.922 | 0.5769mg/L<br>0.5632mg/L |             |              | 1        | toc aq cal 072321<br>toc aq cal 072321   | .2021_07_23_11_47<br>.2021_07_23_11_47              | _50.cal<br>_50.cal |          | 1 10:54:19 P<br>1 10:56:48 P |     |    |          |          |    |           |
| Mean I<br>Mean I                    |                | 5.994<br>0.57(           | l<br>)0mg/L |              |          | Signal[mV]                               | $\begin{array}{c} 20\\ 14\\ 7\\ -2\\ 0 \end{array}$ | 4                  | 6 8      | 10                           | 12  | 14 | 16       | 18       | 20 | Time[min] |
| Sampi                               |                |                          |             |              |          |                                          |                                                     |                    |          |                              |     |    |          |          |    |           |
| Sampl<br>Sampl<br>Orígin:<br>Chk. R |                |                          |             |              |          | SO5254-7<br>(Untitled><br>DOUBLE INJECTI | ON B.met                                            |                    |          |                              |     |    |          |          |    |           |
|                                     | Туре           | Anal.                    |             | Dil          |          | ]                                        |                                                     |                    | Result   |                              |     |    |          |          |    |           |
| Jnkno                               | wn             | NPOC                     |             |              | 1.00     | 0                                        |                                                     |                    |          |                              |     | NF | POC:0.23 | 18 mg/L  |    |           |
| . Det                               |                |                          |             |              |          |                                          |                                                     |                    |          |                              |     |    |          |          |    |           |
| hal.: I                             | NPOC           |                          |             |              |          |                                          |                                                     |                    |          |                              |     |    |          |          |    |           |
| No.                                 | Area           | Conc.                    | Inj, Vol.   | Aut.         | Ex.      |                                          | Cal. Curve                                          | ••                 | ]        | Date / Time                  | e   |    |          |          |    |           |
|                                     | 2 405          | 0.2373mg/l               | 150         | Dil.         | <u> </u> | han ng nal 072211                        | 2021 07 23 11 47                                    | Eff oot            | 0/10/202 | 111-05-47 P                  | B.6 |    |          |          |    |           |

|          |       |            | - Dil. |   |                                           |                       |
|----------|-------|------------|--------|---|-------------------------------------------|-----------------------|
| 1        | 2.495 | 0.2373mg/L | 150uL  | 1 | toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 11:05:47 PM |
| 2        | 2.380 | 0.2263mg/L | 150uL  | 1 | toc aq cal 072321.2021_07_23_11_47_50.cal | 8/19/2021 11:08:01 PM |
| <u> </u> |       |            |        |   |                                           |                       |

| JL                                                   |                          |                         |                                                                       | 8/20/2021 8:28:40 AM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | TOC AQ 081921.132 |
|------------------------------------------------------|--------------------------|-------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Mean Area<br>Mean Conc.                              | 2.438<br>0.2318n         | ng/L                    | Signal[mV]                                                            | $\begin{array}{c} 20\\14\\7\\-2\\0\\2\\4\\6\\8\\10\\12\\14\\16\\18\\10\\12\\14\\16\\18\\16\\18\\10\\12\\14\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\16\\18\\18\\16\\18\\16\\18\\16\\18\\16\\18\\18\\16\\18\\18\\16\\18\\18\\16\\18\\18\\18\\18\\18\\18\\18\\18\\18\\18\\18\\18\\18\\$ | 20 Time[min]      |
| Sample                                               |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                          |                         | SO5254-8<br><untitled><br/>DOUBLE INJECT</untitled>                   | ON B.met                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |
| Туре                                                 | Anal.                    | Dil.                    |                                                                       | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ]                 |
| Unknown                                              | NPOC                     |                         | 1.000                                                                 | NPOC:0.6576 mg/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| 1. Det                                               |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Anal.: NPOC                                          |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| No. Area                                             | Conc. Ir                 | nj. Vol. Aut. I<br>Dil. | Ex.                                                                   | Cal. Curve Date / Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| 1 7.064                                              | 0.6718mg/L<br>0.6435mg/L | 150uL 1<br>150uL 1      | toc aq cal 07232                                                      | .2021_07_23_11_47_50.ca/ 8/19/2021 11:17:11 PM<br>.2021_07_23_11_47_50.ca/ 8/19/2021 11:19:44 PM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Mean Area                                            | 6.915                    | 10000                   | Signal[mV]                                                            | 20 20 20 20 20 20 20 20 20 20 20 20 20 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |
|                                                      |                          |                         |                                                                       | 7<br>-2<br>0 2 4 6 8 10 12 14 16 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 Time[min]      |
| Control Sample                                       |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Sample Name:<br>Sample ID:<br>Method:<br>Chk. Result |                          |                         | CCV<br><untitled><br/>CCV DOUBLE IN<br/>Control value: 100</untitled> | ECTION.tpl<br>2 / Control within range!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |
| Туре                                                 | Anal.                    | Dil.                    |                                                                       | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| Control                                              | NPOC                     | 1.                      | 000                                                                   | NPOC:100.2 mg/L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| 1. Det.                                              |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Anal.: NPOC                                          |                          |                         |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| No. Area                                             | Conc. In                 | ij. Vol. Aut. E<br>Dil. | <b>Ex</b> .                                                           | Cal. Curve Date / Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| 1 1058<br>2 1050                                     | 100.6mg/L<br>99.86mg/L   | 150uL 1<br>150uL 1      | toc aq cal 072321<br>toc aq cal 072321                                | .2021_07_23_11_47_50.cal 8/19/2021 11:30:48 PM<br>.2021_07_23_11_47_50.cal 8/19/2021 11:34:46 PM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Mean Area<br>Mean Conc.                              | 1054<br>100.2mg          | Λ.                      | Signal[mV]                                                            | $\begin{array}{c} 400\\ 300\\ 200\\ 100\\ -40\\ 0\\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \\ \end{array}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20 Time[min]      |

17/26

# Katahdin Analytical Services 5000352

٦

Control Sample

JL

| Type                   | Anal. | Dil. | Result                                        |  |
|------------------------|-------|------|-----------------------------------------------|--|
| Method:<br>Chk. Result |       |      | Control value: 0.1147 / Control within range! |  |
| Method:                |       |      | BLANK DOUBLE INJECTION.tpl                    |  |
| Sample ID:             |       |      | <untitled></untitled>                         |  |
| Sample Name:           |       |      | BLANK                                         |  |

| Control NPOC 1.000 | NPOC:0.1147 mg/L |
|--------------------|------------------|

1. Det.

# Anal.: NPOC

| No.          | Area          | Conc.          | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | (             | Cal. Cu | rve   |       |       |   |       |      | Date  | / Time                                                                                                                                        | ;  |       |    |   |    |          |         |
|--------------|---------------|----------------|-----------|--------------|-----|------------------|---------------|---------|-------|-------|-------|---|-------|------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------|----|-------|----|---|----|----------|---------|
|              | 2.413         | 0.2295mg/L     | 150uL     | 1            |     | toc aq cal 07232 | 1.202         | 1_07_2  | 23_11 | _47_5 | 0.cal |   | 8/19/ | 2021 | 11:43 | :52 PI                                                                                                                                        | M  | <br>1 |    |   |    |          |         |
| 2            | 0.000         | 0.000mg/L      | 150uL     | 1            |     | toc ag cal 07232 | 1.202         | 1_07_2  | 23_11 | _47_5 | 0.cal |   | 8/19/ | 2021 | 11:45 | :58 PI                                                                                                                                        | M  | <br>] |    |   |    |          |         |
| Aean<br>Aean | Area<br>Conc. | 1.207<br>0.114 | 7mg/L     |              |     | Signal[mV]       | 20<br>14<br>7 | }       |       |       |       |   |       |      |       | 4<br>4<br>4<br>4<br>4<br>4<br>4<br>5<br>5<br>5<br>6<br>6<br>7<br>1<br>5<br>6<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 |    | <br>  |    |   |    |          |         |
|              |               |                |           |              |     |                  | -2            |         | ~     |       |       |   |       |      | ÷     |                                                                                                                                               |    |       |    |   |    | <u>.</u> |         |
|              |               |                |           |              |     |                  | _             | 0       | 2     |       | 4     | 6 |       | 8    | 10    | D                                                                                                                                             | 12 | 14    | 16 | 1 | 18 | 20       | Time[mi |

Sample

| Sample Name:<br>Sample ID: | SO5254-9<br><untitied></untitied> |
|----------------------------|-----------------------------------|
| Origin:                    | DOUBLE INJECTION B.met            |
| Chk. Result                |                                   |

| Туре    | Anal. | Dil.  | Result           |
|---------|-------|-------|------------------|
| Unknown | NPOC  | 1.000 | NPOC:0.1961 mg/L |

# 1. Det

# Anal.: NPOC

| No.    | Area  | Conc.      | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | C      | al. C    | Curve |      |      |       |   |         | Di     | ate / Ti | me |              |         |   |    |   |    |         |           |
|--------|-------|------------|-----------|--------------|-----|------------------|--------|----------|-------|------|------|-------|---|---------|--------|----------|----|--------------|---------|---|----|---|----|---------|-----------|
| 1      | 2.220 | 0.2111mg/L | 150uL     | 1            |     | toc aq cal 07232 | 1.2021 | _07      | 23    | 11_4 | 7_50 | cal   |   | 3/19/20 | )21 11 | :55:02   | PM |              |         |   |    |   |    |         |           |
| 2      | 1.904 | 0.1811mg/L | 150uL     | 1            |     | toc aq cal 07232 | 1.2021 | 07       | 23    | 11_4 | 7_50 | .cal  |   | 3/19/20 | 21 11  | :57:14   | PM |              |         |   |    |   |    |         |           |
| Mean / | Area  | 2.062      |           |              |     | Signal[mV]       | 20     |          |       |      |      | ·     |   | _,,     |        |          |    | <b>.</b> ,   |         |   |    |   |    | <b></b> |           |
| Mean ( | Conc. | 0.196      | 1mg/L     |              |     | orgination       |        | +        |       |      | +    |       |   |         |        |          |    | i            | · · · - |   |    | · |    | ·       |           |
|        |       |            |           |              |     |                  | 14     | -        |       |      |      |       |   |         |        |          | +  |              |         |   | -  |   |    | -       |           |
|        |       |            |           |              |     |                  | 7      |          |       | 1    |      |       |   |         |        |          |    |              |         |   |    |   |    |         |           |
|        |       |            |           |              |     |                  | 1      |          |       |      |      |       |   |         |        |          |    |              |         |   |    |   |    |         |           |
|        |       |            |           |              |     |                  | ~      |          | 4     |      | ÷    | ····- |   |         | ÷      |          |    | $\downarrow$ |         |   | _  |   |    |         |           |
|        |       |            |           |              |     |                  | -2     | <b>.</b> |       |      |      | L     | - |         |        |          |    |              |         |   |    |   |    |         |           |
|        |       |            |           |              |     |                  |        | 0        |       | 2    | 4    | 1     | 6 |         | 3      | 10       | 1  | 2            | 1       | 4 | 16 |   | 18 | 20      | Time[min] |

Sample

| JL                                                                                                                                    |                                                                                                                                                                    | 8/20/2021 8:28:40 AM T                                                                                                                                                                                                                                                 | OC AQ 081921.132 |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result                                                                                  |                                                                                                                                                                    | SO5254-10<br><untitled><br/>DOUBLE INJECTION B.met</untitled>                                                                                                                                                                                                          |                  |
| Туре                                                                                                                                  | Anal. Dil.                                                                                                                                                         | Result                                                                                                                                                                                                                                                                 |                  |
| Unknown                                                                                                                               | NPOC                                                                                                                                                               | 1.000 NPOC:0.7042 mg/L                                                                                                                                                                                                                                                 |                  |
|                                                                                                                                       | 1                                                                                                                                                                  |                                                                                                                                                                                                                                                                        |                  |
| 1. Det                                                                                                                                |                                                                                                                                                                    |                                                                                                                                                                                                                                                                        |                  |
| Anal.: NPOC                                                                                                                           |                                                                                                                                                                    |                                                                                                                                                                                                                                                                        |                  |
| No. Area                                                                                                                              | Conc. Inj. Vol. Aut.                                                                                                                                               | Ex. Cal. Curve Date / Time                                                                                                                                                                                                                                             |                  |
| 1 7.386                                                                                                                               | Dil.<br>0.7024mg/L 150uL 1                                                                                                                                         | toc aq cal 072321.2021_07_23_11_47_50.cal 8/20/2021 12:06:25 AM                                                                                                                                                                                                        |                  |
| 2 7.423                                                                                                                               | 0.7059mg/L 150uL 1                                                                                                                                                 | toc aq cat 072321.2021_07_23_11_47_50.cat 8/20/2021 12:08:58 AM                                                                                                                                                                                                        |                  |
| Mean Area<br>Mean Conc.                                                                                                               | 7.405<br>0.7042mg/L                                                                                                                                                | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20                                                                                                                                                                                                          | Time[min]        |
| Sample<br>Sample Name:<br>Sample ID:<br>Origin:<br>Chik. Result                                                                       |                                                                                                                                                                    | SO5254-11<br><untilled><br/>DOUBLE INJECTION B.met</untilled>                                                                                                                                                                                                          |                  |
|                                                                                                                                       | Anal, Dil.                                                                                                                                                         | Result                                                                                                                                                                                                                                                                 |                  |
| Туре                                                                                                                                  |                                                                                                                                                                    | T COM                                                                                                                                                                                                                                                                  |                  |
| Unknown                                                                                                                               |                                                                                                                                                                    |                                                                                                                                                                                                                                                                        |                  |
| 0.1.1.0.111                                                                                                                           | NPOC                                                                                                                                                               | 1.000 NPOC:0.1950 mg/L                                                                                                                                                                                                                                                 |                  |
|                                                                                                                                       | NPOC                                                                                                                                                               | 1.000 NPOC:0.1950 mg/L                                                                                                                                                                                                                                                 |                  |
| 1. Det                                                                                                                                | NPOC                                                                                                                                                               | 1.000 NPOC:0.1950 mg/L                                                                                                                                                                                                                                                 |                  |
| 1. Det<br>Anal.: NPOC                                                                                                                 | Conc. Inj. Vol. Aut.                                                                                                                                               | 1.000         NPOC:0.1950 mg/L           Ex.         Cal. Curve         Date / Time                                                                                                                                                                                    |                  |
| 1. Det<br>Anal.: NPOC<br>No. Area                                                                                                     | Conc. Inj. Vol. Aut.<br>Dil.                                                                                                                                       | Ex. Cal. Curve Date / Time                                                                                                                                                                                                                                             |                  |
| 1. Det<br>Anal.: NPOC<br>No. Area<br>1 2.009                                                                                          | Conc. Inj. Vol. Aut.<br>Dil.                                                                                                                                       | Ex. Cal. Curve Date / Time                                                                                                                                                                                                                                             |                  |
| 1. Det<br>Anal.: NPOC<br>No. Area<br>1 2.009                                                                                          | Conc. Inj. Vol. Aut.<br>Dil.<br>0.1911mg/L 150uL 1                                                                                                                 | Ex. Cal. Curve Date / Time<br>koc ag cal 072321.2021_07_23_11_47_50.cal 8/20/2021 12:17:57 AM                                                                                                                                                                          | Time[min]        |
| 1. Det<br>Anal.: NPOC<br>No. Area<br>1 2.009<br>2 2.091<br>Mean Area                                                                  | Conc.         Inj. Vol.         Aut.           0.1911mg/L         150uL         1           0.1989mg/L         150uL         1           2.050         2         1 | Ex.         Cal. Curve         Date / Time           toc aq cal 072321 2021_07_23_11_47_50.cal         B/20/2021 12:17:57 AM           toc aq cal 072321 2021_07_23_11_47_50.cal         B/20/2021 12:20:12 AM           Signal[mV]         20           14         -2 | Time[min]        |
| 1. Det<br>Anal.: NPOC<br>No. Area<br>1 2.009<br>2 2.091<br>Wean Area<br>Wean Conc.<br>Sample<br>Sample Name:<br>Sample ID:<br>Drigin: | Conc.         Inj. Vol.         Aut.           0.1911mg/L         150uL         1           0.1989mg/L         150uL         1           2.050         2         1 | Ex.       Cal. Curve       Date / Time         toc aq cal 072321.2021_07_23_11_47_50.cal       8/20/2021 12:17:57 AM         toc aq cal 072321.2021_07_23_11_47_50.cal       8/20/2021 12:20:12 AM         Signal[mV]       20         14                              | Time[min]        |

JL

#### 1. Det

| Anai.:                                                                 | ni 00                                   |                          |                             |              |                                                          |                                                                                                                              |                      |
|------------------------------------------------------------------------|-----------------------------------------|--------------------------|-----------------------------|--------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------|
| No.                                                                    | Area                                    | Conc.                    | înj. Vol.                   | Aut.<br>Dil. | Ex.                                                      | Cal. Curve Date / Time                                                                                                       |                      |
| 1                                                                      | 9.532                                   | 0.9065mg/L               |                             | L 1          |                                                          | 21.2021_07_23_11_47_50.cal 8/20/2021 12:29:27 AM                                                                             |                      |
| 2                                                                      | 9.762                                   | 0.9284mg/L               | 150ul                       | <u> </u>     | toc aq cal 072                                           | 21.2021_07_23_11_47_50.cal 8/20/2021 12:32:05 AM                                                                             |                      |
| Mean :<br>Mean                                                         |                                         | 9.647<br>0.917           | 7<br>75mg/L                 |              | Signal[mV                                                | $ \begin{array}{c} 20 \\ 14 \\ 7 \\ -2 \\ 0 \\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14$ | 16 18 20 Time[min    |
| Sample                                                                 | le                                      |                          |                             |              |                                                          |                                                                                                                              |                      |
| Sample<br>Sample<br>Origin:<br>Chk. R                                  | ;                                       |                          |                             |              | SO5254-13<br><untitled><br/>DOUBLE INJEC</untitled>      | fION B.met                                                                                                                   |                      |
|                                                                        | Туре                                    | Anal.                    |                             | Dil.         | <u> </u>                                                 | Result                                                                                                                       | Table Colored and an |
| Unkno                                                                  | IWD                                     | NPOC                     |                             |              | 1.000                                                    | N                                                                                                                            | POC:0.1942 mg/L      |
| 1. Det                                                                 |                                         |                          |                             |              |                                                          |                                                                                                                              |                      |
| Anal.: I                                                               | NPOC                                    |                          |                             |              |                                                          |                                                                                                                              |                      |
| No.                                                                    | Area                                    | Conc.                    | lnj. Vol.                   | Aut.<br>Dil. | Ex.                                                      | Cal. Curve Date / Time                                                                                                       |                      |
| 1                                                                      | 2.013<br>2.070                          | 0.1914mg/L<br>0.1969mg/L | 150uL<br>150uL              | 1            |                                                          | 1.2021_07_23_11_47_50.cal 8/20/2021 12:41:03 AM<br>1.2021_07_23_11_47_50.cal 8/20/2021 12:43:18 AM                           |                      |
| Mean /<br>Mean (                                                       |                                         | 2.042<br>0.194           |                             |              | Signal[mV]                                               | 20<br>14<br>7                                                                                                                |                      |
|                                                                        |                                         |                          |                             |              |                                                          | 0 2 4 6 8 10 12 14                                                                                                           | 16 18 20 Time[min]   |
| Sample                                                                 | e                                       |                          |                             |              |                                                          |                                                                                                                              | 16 18 20 Time[min]   |
| Sample<br>Sample<br>Origin:                                            | e Name:<br>e ID:                        |                          |                             |              | SO5254-14<br><untitled><br/>DOUBLE INJEC</untitled>      | 0 2 4 6 8 10 12 14                                                                                                           | 16 18 20 Time[min]   |
| Sample<br>Sample<br>Origin:<br>Chk. Re                                 | e Name:<br>e ID:                        | Anal.                    |                             | Dił.         | <untitled></untitled>                                    | 0 2 4 6 8 10 12 14                                                                                                           | 16 18 20 Time[min]   |
| Sample<br>Sample<br>Origin:<br>Chk. Re                                 | e Name:<br>e ID:<br>esult<br>Type       | Anal.<br>NPOC            |                             | Dił.         | <untitled></untitled>                                    | 0 2 4 6 8 10 12 14<br>ION B.met                                                                                              | 16 18 20 Time[min]   |
| Sample<br>Sample<br>Origin:<br>Chk. Re<br>Unknov                       | e Name:<br>e ID:<br>esult<br>Type<br>wn |                          |                             | Dił.         | <untitled><br/>DOUBLE INJEC</untitled>                   | 0 2 4 6 8 10 12 14<br>ION B.met                                                                                              |                      |
| Sample<br>Sample<br>Origin:<br>Chk. Re                                 | e Name:<br>e ID:<br>esult<br>Type<br>wn | NPOC                     | łnj. Vol.                   | Aut          | <untitled><br/>DOUBLE INJEC</untitled>                   | 0 2 4 6 8 10 12 14<br>ION B.met                                                                                              |                      |
| Sample<br>Sample<br>Origin:<br>Chk. Ro<br>Unknov<br>1. Det<br>Anal.: N | e Name:<br>e ID:<br>esult<br>Type<br>wn | NPOC                     | Inj. Vol.<br>150uL<br>150uL | Aut.<br>Dil. | <untitled><br/>DOUBLE INJEC<br/>1.000<br/>Ex.</untitled> | 0 2 4 6 8 10 12 14<br>ION B.met<br>Result                                                                                    |                      |

| JL                                                   |                                          | 8/20/2021 8:28:40 AM                                                                                                             | TOC AQ 081921.t32 |
|------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Mean Area<br>Mean Conc.                              | 1.660<br>0.1578mg/L                      | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 2                                                                     | 0 Time[min]       |
| Sample<br>Sample Name:                               |                                          | SO5350-6                                                                                                                         |                   |
| Sample ID:<br>Origin:<br>Chk. Result                 |                                          | <untitled><br/>DOUBLE INJECTION B.met</untitled>                                                                                 |                   |
| Туре                                                 | Anal. Dil.                               | Result                                                                                                                           |                   |
| Unknown                                              | NPOC 1.                                  | 000 NPOC:0.5894 mg/L                                                                                                             |                   |
| 1. Det                                               |                                          |                                                                                                                                  |                   |
| Anal.: NPOC                                          |                                          |                                                                                                                                  |                   |
| No. Area                                             | Conc. Inj. Vol. Aut. Ex                  | Cal. Curve Date / Time                                                                                                           |                   |
|                                                      | Dil.                                     |                                                                                                                                  |                   |
| 1 6.220<br>2 6.176                                   | 0.5915mg/L 150uL 1<br>0.5874mg/L 150uL 1 | toc aq cal 072321.2021_07_23_11_47_50.cal 8/20/2021 1:03:38 AM<br>toc aq cal 072321.2021_07_23_11_47_50.cal 8/20/2021 1:06:11 AM |                   |
| Mean Area<br>Mean Conc.                              | 6.198<br>0.5894mg/L                      | Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 8 10 12 14 16 18 20                                                                    | ) Time[min]       |
| Sample                                               |                                          |                                                                                                                                  |                   |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                                          | SO5350-6 MS<br><untitled><br/>DOUBLE INJECTION B.met</untitled>                                                                  |                   |
| Туре                                                 | Anal. Dil.                               | Result                                                                                                                           |                   |
| Unknown                                              | NPOC 1.0                                 | 000 NPOC:101.1 mg/L                                                                                                              |                   |
| 1. Det                                               |                                          |                                                                                                                                  |                   |
| Anal.: NPOC                                          |                                          |                                                                                                                                  |                   |
| No. Area                                             | Conc. Inj. Vol. Aut. Ex                  | . Cal. Curve Date / Time                                                                                                         |                   |
| 1 1065                                               | Dil.<br>101.3mg/L 150uL 1                | toc ag cal 072321.2021_07_23_11_47_50.cai 8/20/2021 1:17:02 AM                                                                   |                   |
| 2 1062                                               | 101.0mg/L 150uL 1                        | toc aq cal 072321.2021_07_23_11_47_50.cal 8/20/2021 1:20:45 AM                                                                   |                   |
| Mean Area<br>Mean Conc.                              | 1064<br>101.1mg/L                        | Signal[mV] 400<br>300<br>200<br>100<br>-40<br>0 2 4 6 8 10 12 14 16 18 20                                                        | ) Time[min]       |
|                                                      |                                          |                                                                                                                                  |                   |

Sample

JL

 Sample Name:
 SO5350-6 MSD

 Sample ID:
 <Untitled>

 Origin:
 DOUBLE INJECTION B.met

 Chk. Result

| Туре    | Anal. | Dil.  | Result           |  |
|---------|-------|-------|------------------|--|
| Unknown | NPOC  | 1.000 | NPOC: 103.1 mg/L |  |

1. Det

# Anal.: NPOC

| No.          | Area          | Conc.         | Inj. Vol. | Aut.<br>Dil. | Ex. |                   | Ca                              | l. Cur | ve   |      |       |      |             | D     | ate / | Time |      |   |  |  |  |
|--------------|---------------|---------------|-----------|--------------|-----|-------------------|---------------------------------|--------|------|------|-------|------|-------------|-------|-------|------|------|---|--|--|--|
| 1            | 1092          | 103.9mg/L     | 150uL     | 1            | ·   | toc aq cal 072321 | 1.2021_                         | 07_2   | 3_11 | _47_ | 50.ca | ał   | 8/20/20     | 21 1: | 31:28 | 8 AM | <br> | 1 |  |  |  |
| 2            | 1077          | 102.4mg/L     | 150uL     | 1            |     | toc aq cal 07232  | 1.2021_                         | 07_2   | 3_11 | _47_ | 50.ca | əi 📃 | <br>8/20/20 | 21 1: | 35:1  | 7 AM | <br> | ] |  |  |  |
| Mean<br>Mean | Area<br>Conc. | 1085<br>103.1 | lmg/L     |              |     | Signal[mV]        | 400<br>300<br>200<br>100<br>-40 |        |      |      |       |      |             |       |       |      |      |   |  |  |  |

2

4

6

8

10

12

14

16

18

20

Time[min]

Sample

| Sample Name: | SO5463-1               |
|--------------|------------------------|
| Sample ID:   | <untitled></untitled>  |
| Origin:      | DOUBLE INJECTION B.met |
| Chk. Result  |                        |

| Туре    | Anal. | Dil.  | Result          |
|---------|-------|-------|-----------------|
|         |       |       |                 |
| Unknown | NPOC  | 1.000 | NPOC:7.136 mg/L |

0

# 1. Det

# Anal.: NPOC

| No.              | Area  | Conc.          | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | C                   | Cal. Curve            |           | Date / Tir | ne |    |    |    |    |           |
|------------------|-------|----------------|-----------|--------------|-----|------------------|---------------------|-----------------------|-----------|------------|----|----|----|----|----|-----------|
| 1                | 76.11 | 7.238mg/L      | 150uL     |              |     | toc ag cal 07232 | 1.202               | 21_07_23_11_47_50.cal | 8/20/2021 | 1:45:10 A  | M  |    |    |    |    |           |
| 2                | 73.97 | 7.035mg/L      | 150uL     |              |     | toc aq cal 07232 | 1.202               | 21_07_23_11_47_50.cal | 8/20/2021 | 1:48:12 A  | M  |    |    |    |    |           |
| Mean A<br>Mean ( |       | 75.04<br>7.136 |           |              |     | Signal[mV]       | 20<br>14<br>7<br>-2 | 4                     |           |            |    |    |    |    |    |           |
|                  |       |                |           |              |     |                  |                     | 0 2 4 (               | 8         | 10         | 12 | 14 | 16 | 18 | 20 | Time[min] |

Control Sample

| 8/20/2021 | 8-28-40 | 644  |
|-----------|---------|------|
| 0/20/2021 | 0.20.40 | WUY1 |

JL

TOC AQ 081921.132

| Sample N<br>Sample II<br>Method:<br>Chk. Res                                                                                  | ID:                                                             |                                           |              |              |       | CCV<br><untitled><br/>CCV DOUBLE INJECTION.tpl<br/>Control value: 99.95 / Control within range!</untitled>                              |                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------|--------------|--------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|                                                                                                                               |                                                                 |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
|                                                                                                                               | уре                                                             | Anal.                                     |              | Dil.         |       | Result                                                                                                                                  |                                                                                                         |
| Control                                                                                                                       | ~                                                               | NPOC                                      |              |              | 1.000 | NPOC:99.95 r                                                                                                                            | <u>ng/L</u>                                                                                             |
| 1. Det.                                                                                                                       |                                                                 |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
| Anal.: NP                                                                                                                     |                                                                 |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
|                                                                                                                               | Area                                                            | Conc.                                     | Inj. Vol.    | Aut.<br>Dil. | Ex.   | Cal. Curve                                                                                                                              | Date / Time                                                                                             |
|                                                                                                                               | 1059<br>1043                                                    | 100.7mg/L<br>99.19mg/L                    |              |              |       |                                                                                                                                         | 3/20/2021 1:59:22 AM<br>3/20/2021 2:03:22 AM                                                            |
| Mean Are<br>Mean Coi                                                                                                          |                                                                 | 1051<br>99.95                             |              |              |       | Signal[mV] 400<br>300<br>200<br>100<br>-40<br>0 2 4 6                                                                                   | 8 10 12 14 16 18 20 Time[m                                                                              |
| Control Si<br>iample N<br>iample IE<br>tethod:<br>Chk. Resi                                                                   | Name:<br>D:                                                     |                                           |              |              |       | BLANK<br><untitled><br/>BLANK DOUBLE INJECTION.tpl<br/>Control value: 0.1543 / Control within range!</untitled>                         |                                                                                                         |
| Ту                                                                                                                            | ype                                                             | Anal.                                     |              | Dil          |       | Result                                                                                                                                  |                                                                                                         |
| Control                                                                                                                       |                                                                 | NPOC                                      |              |              | 1.000 | NPOC:0.1543 n                                                                                                                           | ng/L                                                                                                    |
| . Det.                                                                                                                        |                                                                 |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
|                                                                                                                               |                                                                 |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
| Anal.: NP                                                                                                                     | 'QC                                                             |                                           |              |              |       |                                                                                                                                         |                                                                                                         |
|                                                                                                                               |                                                                 | Conc                                      | Ini. Vol     | Aut          | Fx    | Cal Curve                                                                                                                               | Date / Time                                                                                             |
| No.                                                                                                                           | Area                                                            | Conc.                                     | Inj. Vol.    | Aut.<br>Dil. | Ex.   | Cal. Curve                                                                                                                              | Date / Time                                                                                             |
| No. /                                                                                                                         |                                                                 | Conc.<br>0.3086mg/L<br>0.000mg/L          | 150u         | Dil.<br>L 1  |       | toc aq cal 072321.2021_07_23_11_47_50.cal 8                                                                                             | Date / Time<br>//20/2021 2:12:32 AM<br>//20/2021 2:14:38 AM                                             |
| No. 3<br>2 C<br>Mean Are                                                                                                      | Area<br>3.245<br>0.000                                          | 0.3086mg/L<br>0.000mg/L<br>1.623          | 150u<br>150u | Dil.<br>L 1  |       | toc aq cal 072321.2021_07_23_11_47_50.cal 8                                                                                             | 5/20/2021 2:12:32 AM                                                                                    |
| No. //<br>32 C<br>Mean Are.<br>Mean Cor<br>Sample Na<br>Sample ID<br>Drigin:                                                  | Area<br>3.245<br>0.000<br>ea<br>nc.                             | 0.3086mg/L<br>0.000mg/L<br>1.623          | 150u<br>150u | Dil.<br>L 1  |       | toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>Signal[mV] 20<br>14<br>7<br>-2            | 9/20/2021 2:12:32 AM<br>9/20/2021 2:14:38 AM                                                            |
| No. //<br>32 / C<br>Mean Are.<br>Mean Cor<br>Sample Na<br>Sample ID<br>Drigin:                                                | Area<br>3.245<br>0.000<br>ea<br>nc.<br>lame:<br>D:<br>ult       | 0.3086mg/L<br>0.000mg/L<br>1.623          | 150u<br>150u | Dil.<br>L 1  |       | toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 | 9/20/2021 2:12:32 AM<br>9/20/2021 2:14:38 AM                                                            |
| 1     3       1     3       2     0       Mean Are.       Mean Cor       Sample       Sample ID       Origin:       Chk. Resu | Area<br>3.245<br>0.000<br>ea<br>nc.<br>lame:<br>D:<br>ult<br>pe | 0.3086mg/L<br>0.000mg/L<br>1.623<br>0.154 | 150u<br>150u |              |       | toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>toc aq cal 072321.2021_07_23_11_47_50.cal 8<br>Signal[mV] 20<br>14<br>7<br>-2<br>0 2 4 6 | #/20/2021 2:12:32 AM       #/20/2021 2:14:38 AM       8     10       12     14       16     18       20 |

JL

| 1 | Def |
|---|-----|
|   |     |

| 10 1 Cat.,                             | NPOC          |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
|----------------------------------------|---------------|----------------------------------------------|---------------------------|--------------|------|---------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------|-----------------|----------|
| No.                                    | Area          | Conc.                                        | inj, Vol.                 | Aut.<br>Dil. | Ex.  |                                                         | Cal. Curve                                                               | Date / Time                                                 |                 |          |
|                                        | 25.55         | 2.430mg/L                                    |                           | лц — ·       | 1    |                                                         | 21.2021_07_23_11_47_50.cal<br>21.2021_07_23_11_47_50.cal                 | 8/20/2021 2:24:11 AM<br>8/20/2021 2:26:58 AM                |                 |          |
| l                                      | 25.49         | 2.424mg/L                                    |                           | μĻ           | 1    |                                                         |                                                                          | 0/20/2021 2.20.38 AWI                                       |                 |          |
| fean (                                 | Area<br>Conc. | 25.52<br>2.427                               | 2<br>7mg/L                |              |      | Signal[mV]                                              | $\begin{array}{c} 20\\ 14\\ 7\\ -2\\ 0 \\ 2 \\ 4 \end{array}$            | 6 8 10 12                                                   | 14 16 18 20     | Time[mir |
| ample                                  | e             |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
| iample<br>iample<br>)rigin:<br>)hk. R  |               |                                              |                           |              |      | SO5463-2 MS<br><untitled><br/>DOUBLE INJEC1</untitled>  | TON B.met                                                                |                                                             |                 |          |
|                                        | Туре          | Anal.                                        |                           | Dil.         |      | 1                                                       |                                                                          | Result                                                      |                 |          |
| inkno                                  |               | NPOC                                         |                           |              | 1.00 | ю                                                       |                                                                          |                                                             | NPOC:102.5 mg/L |          |
|                                        |               | <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> |                           |              | 1.00 | ,q                                                      |                                                                          |                                                             |                 |          |
| . Det                                  |               |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
| .nal.: t                               | VPOC          |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
| No.                                    | Area          | Conc.                                        | Inj. Vol.                 | Aut.<br>Dil. | Ex.  |                                                         | Cal. Curve                                                               | Date / Time                                                 |                 |          |
|                                        | 1081<br>1075  | 102.8mg/L<br>102.2mg/L                       | 150u<br>150u              |              |      |                                                         | 1.2021_07_23_11_47_50.cal<br>1.2021_07_23_11_47_50.cal                   | 8/20/2021 2:37:46 AM<br>8/20/2021 2:41:32 AM                | _               |          |
| lean A                                 |               | 102.211972                                   | 1000                      | · ·          | J    |                                                         |                                                                          | 0/20/2021 2.41.02 Filk                                      |                 |          |
| Aean (                                 |               | 102.5                                        | mg/L                      |              |      | Signal[mV]                                              | $ \begin{array}{c} 400\\ 300\\ 200\\ 100\\ -40\\ 0 & 2 & 4 \end{array} $ | 6 8 10 12                                                   | 14 16 18 20     | Time[min |
| ample                                  | ;             |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
| iample<br>iample<br>Drigin:<br>Chk. Ro |               |                                              |                           |              |      | SO5463-2 MSD<br><untitled><br/>DOUBLE INJECT</untitled> | ION B.met                                                                |                                                             |                 |          |
| •                                      | Туре          | Anal.                                        |                           | Dil.         |      |                                                         |                                                                          | Result                                                      | <u></u>         |          |
| nknov                                  | vn            | NPOC                                         |                           |              | 1.00 | 0                                                       |                                                                          |                                                             | NPOC:102.9 mg/L |          |
|                                        |               |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
| Det                                    |               |                                              |                           |              |      |                                                         |                                                                          |                                                             |                 |          |
|                                        | IPOC          |                                              |                           |              |      |                                                         |                                                                          | Pa                                                          |                 |          |
| nal.: N                                | NPOC<br>Area  | Conc.                                        | Inj. Vol.                 | Aut.         | Ex.  |                                                         | Cal. Curve                                                               | Date / Time                                                 |                 |          |
| . Det<br>mal.: N<br>No.                |               | Conc.<br>103.4mg/L<br>102.3mg/L              | Inj. Vol.<br>150u<br>150u | Dil.<br>L 1  |      |                                                         | Cal. Curve<br>1.2021_07_23_11_47_50.cal<br>1.2021_07_23_11_47_50.cal     | Date / Time<br>8/20/2021 2:52:17 AM<br>8/20/2021 2:56:03 AM | ****            |          |

|                                                      |                   |                                       |                                                      | 8/20/2021 8:28:40 AM To                                                                                                  | DC AQ 081921.t32 |
|------------------------------------------------------|-------------------|---------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|
| Mean Area<br>Mean Conc.                              | 1082<br>102.9mg/  | ИL                                    | Signal[mV]                                           | $\begin{array}{c} 400\\ 300\\ 200\\ 100\\ -40\\ 0\\ 2 \\ 4 \\ 6 \\ 8 \\ 10 \\ 12 \\ 14 \\ 16 \\ 18 \\ 20 \\ \end{array}$ | Time[min]        |
| Sample                                               |                   |                                       |                                                      |                                                                                                                          |                  |
| Sample Name:<br>Sample ID:<br>Origin:<br>Chk. Result |                   |                                       | SO5208-6<br><untitled><br/>DOUBLE INJECTI</untitled> | ION B.met                                                                                                                |                  |
| Туре                                                 | Anal.             | Dil.                                  |                                                      | Result                                                                                                                   |                  |
| Unknown                                              | NPOC              |                                       | 1.000                                                | NPOC:3.192 mg/L                                                                                                          |                  |
| 1. Det                                               |                   | · · · · · · · · · · · · · · · · · · · | . , <b>.</b>                                         |                                                                                                                          |                  |
| Anal.: NPOC                                          |                   |                                       |                                                      |                                                                                                                          |                  |
| No. Area                                             | Conc. Inj         | . Vol. Aut. E                         | <b>x</b> .                                           | Cal. Curve Date / Time                                                                                                   |                  |
| 1 34.46                                              | 3.277mg/L         | Dil.<br>150uL 1                       |                                                      | .2021_07_23_11_47_50.cal 8/20/2021 3:05:39 AM                                                                            |                  |
| 2 32.67                                              | 3.107mg/L         | 150uL 1                               | toc aq cal 072321                                    | .2021_07_23_11_47_50.cal 8/20/2021 3:08:28 AM                                                                            |                  |
| Mean Conc.                                           | 3.192mg/l         |                                       |                                                      | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                     | Time[min]        |
| Sample<br>Sample Name:                               |                   |                                       | SO5254-5                                             |                                                                                                                          |                  |
| Sample ID:<br>Origin:<br>Chk. Result                 |                   |                                       | <untitled><br/>DOUBLE INJECTI</untitled>             | ON B.met                                                                                                                 |                  |
| Туре                                                 | Anal.             | Dil.                                  |                                                      | Result                                                                                                                   |                  |
| Unknown                                              | NPOC              | 1                                     | .000                                                 | NPOC:0.2673 mg/L                                                                                                         |                  |
| 1. Det                                               |                   |                                       |                                                      |                                                                                                                          |                  |
| Anal.: NPOC                                          |                   |                                       |                                                      |                                                                                                                          |                  |
| No. Area                                             | Conc. Inj.        | Vol. Aut. E                           | <b>x</b> .                                           | Cal. Curve Date / Time                                                                                                   |                  |
| 1 3.090                                              | 0.2939mg/L        | Dil.<br>150uL 1                       | toc aq cal 072321                                    | .2021_07_23_11_47_50.cal 8/20/2021 3:17:41 AM                                                                            |                  |
| 2 2.531                                              |                   | 150uL 1                               |                                                      | .2021_07_23_11_47_50.cal 8/20/2021 3:20:01 AM                                                                            |                  |
| Mean Area<br>Mean Conc.                              | 2.811<br>0.2673mg | A.                                    |                                                      | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                    | Time[min]        |

25/26

Control Sample

JL

 Sample Name:
 CCV

 Sample ID:
 <Untitled>

 Method:
 CCV DOUBLE INJECTION.tpl

 Chk. Result
 Control value: 99.19 / Control within range!

| sype   | <b>70 (6</b> ). | OII.  | Negun |  |
|--------|-----------------|-------|-------|--|
|        |                 |       |       |  |
| çonaoi | NPOC            | 1.000 |       |  |
|        |                 |       |       |  |

1. Det.

Anal.: NPOC

| No.  | Area          | Conc.         | lnj. Vol. | Aut.<br>Dil. | Ex. |                   | Cal.       | Curve  |       |       |    |         | Date    | e / Tin | ie |      |        |      |
|------|---------------|---------------|-----------|--------------|-----|-------------------|------------|--------|-------|-------|----|---------|---------|---------|----|------|--------|------|
|      | 1051          | 99.95mg/L     | 150uL     | ŕ            |     | toc ag cal 072321 | 1.2021_0   | 7_23_  | 11_47 | _50.c | al | 8/20/20 | 21 3:31 | :03 Ał  | M  |      |        |      |
|      | 1035          | 98.43mg/L     | 150uL     | 1            |     | toc ag cal 072321 | .2021_0    | 07_23_ | 11_47 | _50.c | al | 8/20/20 | 21 3:35 | :13 Al  | N  |      |        |      |
| laan | Area          | 1043          |           |              |     | Cianal(m)/l       | 400        |        |       |       |    |         |         |         |    |      |        |      |
|      | Area          | 1043          |           |              |     | Signal[mV]        | 400        |        |       |       |    |         |         |         |    | <br> | <br>·; | <br> |
|      | Area<br>Conc. | 1043<br>99.19 |           |              |     | Signal[mV]        | 400<br>300 |        |       |       |    |         |         |         |    | <br> | <br>   | <br> |
|      |               |               |           |              |     | Signal[mV]        |            |        |       |       |    |         |         |         |    | <br> | <br>   |      |

| -40 | 0 | 1            | 2 | 4 | ļ | (  | 5 | 8        | 3 | 1 | 0 | 1 | 2 | 1 | 4 | 1 | 6 |   | 8 | 2 | 0 | Ti | me[ | min | } |  |
|-----|---|--------------|---|---|---|----|---|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|---|--|
| -40 | E | 1.7          |   |   | 1 |    |   | <u> </u> |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |  |
| 100 |   | $\mathbb{R}$ |   |   |   |    |   |          |   |   |   |   |   |   |   |   |   |   | 1 |   |   |    |     |     |   |  |
| 200 | - | A            |   |   |   | Ą- |   |          |   |   |   | 1 |   |   |   |   |   |   |   |   |   |    |     |     |   |  |
| 300 |   |              |   |   |   |    |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |   |  |
| 400 |   |              |   | 1 |   |    | [ |          | 1 | 1 |   | 1 |   | 2 |   |   |   | 1 |   | T | ] |    |     |     |   |  |

#### Control Sample

| T            | An al | 08 | Danula                                        |  |
|--------------|-------|----|-----------------------------------------------|--|
| Chk. Result  |       |    | Control value: 0.2969 / Control within range! |  |
| Method:      |       |    | BLANK DOUBLE INJECTION.tpl                    |  |
| Sample ID:   |       |    | <untitled></untitled>                         |  |
| Sample Name: |       |    | BLANK                                         |  |
|              |       |    |                                               |  |

| Туре    | Anal. | Dil.  | Result           |
|---------|-------|-------|------------------|
| Control | NPOC  | 1.000 | NPOC:0.2969 mg/L |

1. Det.

| No.     | Area  | Conc.      | lnj. Vol. | Aut.<br>Dil. | Ex. |                  | (     | Cal. Curv | e      |         |   |          | Dat      | ie / Tim | <b>e</b> | ·        |           |         |    |          |           |
|---------|-------|------------|-----------|--------------|-----|------------------|-------|-----------|--------|---------|---|----------|----------|----------|----------|----------|-----------|---------|----|----------|-----------|
| 1       | 5.093 | 0.4844mg/L | 150uL     | 1            |     | toc aq cal 07232 | 1.202 | 1_07_23   | -11_47 | _50.cai |   | 8/20/2(  | 021 3:44 | 4:27 AN  |          |          |           |         |    |          |           |
| 2       | 1.150 | 0.1094mg/L | 150uL     | 1            |     | toc aq cal 07232 | 1.202 | 1_07_23   | _11_47 | _50.cal |   | 8/20/20  | 021 3:46 | 5:47 AN  | l        |          |           |         |    |          |           |
| Viean / |       | 3.122      |           |              |     | Signal[mV]       | 20    | <u> </u>  |        |         |   |          | ;        | 1:       |          |          |           | - Ţ - ' |    |          |           |
| viean ( | Conc. | 0.296      | 9mg/L     |              |     | - 0 - 1          | 14    |           |        |         |   |          |          |          |          |          |           |         |    |          |           |
|         |       |            |           |              |     |                  | 7     |           |        |         |   |          |          |          |          |          |           |         |    |          |           |
|         |       |            |           |              |     |                  | '     |           |        |         |   |          | ·;       |          |          |          |           |         |    |          |           |
|         |       |            |           |              |     |                  | -2    |           |        |         |   | <u>/</u> |          | -t       |          | <u> </u> | † · · · · |         |    | <u>.</u> |           |
|         |       |            |           |              |     |                  |       | 0         | 2      | 4       | 6 | 8        | 3        | 10       | 12       | 1        | 4         | 16      | 18 | 20       | Time[min] |

Instr.Information

JL

| System      |  |  |
|-------------|--|--|
| Detector    |  |  |
| Catalyst    |  |  |
| Cell Length |  |  |
|             |  |  |

Cal. Curve

| Sample Name:<br>Sample ID:<br>Cal. Curve: |       |
|-------------------------------------------|-------|
| Туре                                      | Anal. |

NPOC

Untitled Untitled toc aq cal 072321.2021\_07\_23\_11\_47\_50.cal

TOC-Vcph / ASI-V Combustion Regular Sensitivity long

Conc: 0.000mg/L

Standard

| No. | Area  | lnį, Vol. | Aut.<br>Dil. | Rem.   | Ex. | Date / Time           |
|-----|-------|-----------|--------------|--------|-----|-----------------------|
| 1   | 3.743 | 50uL      | 1            | ****** | -   | 7/23/2021 11:56:00 AM |
| 2   | 3.894 | 50uL      | 1            | ****** |     | 7/23/2021 12:00:13 PM |
| 3   | 4.231 | 50uL      | 1            | ****** | E   | 7/23/2021 12:04:26 PM |

| Acid Add.<br>Sp. Time<br>Mean Area | 1.500%<br>90.00sec<br>3.819 | Signal[mV] | 20<br>14 |        | 1 | <u> </u>      | <br>         |        |   | <br>     |   |   |    |       |    | <br>-      |   |    | <br>       |           |
|------------------------------------|-----------------------------|------------|----------|--------|---|---------------|--------------|--------|---|----------|---|---|----|-------|----|------------|---|----|------------|-----------|
|                                    |                             |            | 7        |        |   |               | <br>         |        |   | <br><br> |   |   |    |       |    | <br>-      | - |    | <br>       |           |
|                                    |                             |            | -2       | ∟<br>0 | 2 | <u>⊦</u><br>2 | <br><u> </u> | 1<br>4 | 6 | <br>8    | 1 | 0 | 12 | <br>2 | 14 | <br><br>16 |   | 18 | <br><br>20 | Time[min] |

#### Conc: 1.000mg/L

| No. | Area  | Inj. Vol. | Aut.<br>Dil. | Rem.   | Ex. | Date / Time           |
|-----|-------|-----------|--------------|--------|-----|-----------------------|
| 1   | 7.081 | 50uL      | 1            | ****** | E   | 7/23/2021 12:13:01 PM |
| 2   | 5.925 | 50uL      | 1            | ****** |     | 7/23/2021 12:17:23 PM |
| 3   | 5.824 | 50uL      | 1            | ****** |     | 7/23/2021 12:21:43 PM |

| Acid Add.<br>Sp. Time<br>Mean Area | 1.500%<br>90.00sec<br>5.875 | Signal[mV] | 20<br>14 |   |               |   |   |   |    |    |    |    |    |    |           |
|------------------------------------|-----------------------------|------------|----------|---|---------------|---|---|---|----|----|----|----|----|----|-----------|
|                                    |                             |            | 7        |   |               |   |   |   |    |    |    |    |    |    |           |
|                                    |                             |            | -2       | 0 | <u>-</u><br>2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | Time[min] |

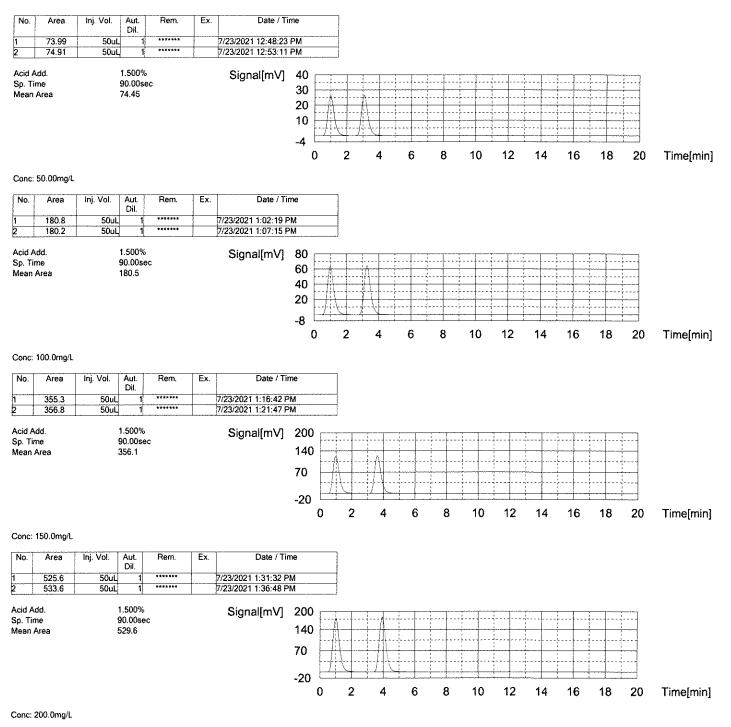
#### Conc: 5.000mg/L

| No.                       | Area  | Inj. Vol. | Aut.<br>Dil                | Rem.    | Ex. | Date / Ti          | me                  |   |   |   |   |   |    |    |    |    |    |      |             |
|---------------------------|-------|-----------|----------------------------|---------|-----|--------------------|---------------------|---|---|---|---|---|----|----|----|----|----|------|-------------|
| 1                         | 19.47 | 50uL      | 1                          | ******* |     | 7/23/2021 12:30:26 | ΡM                  |   |   |   |   |   |    |    |    |    |    |      |             |
| 2                         | 21.83 | 50uL      | 1                          | ******* | E   | 7/23/2021 12:34:57 | PM                  |   |   |   |   |   |    |    |    |    |    |      |             |
| 3                         | 20.53 | 50uL      | 1                          | ******  | 1   | 7/23/2021 12:39:28 | PM                  |   |   |   |   |   |    |    |    |    |    |      |             |
| Acid A<br>Sp. Tir<br>Mean | ne    |           | 1.500%<br>90.00se<br>20.00 |         |     | Signal[mV]         | 20<br>14<br>7<br>-2 |   |   | 7 |   |   |    |    |    |    |    |      |             |
|                           |       |           |                            |         |     |                    |                     | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 11 | 8 20 | ) Time[min] |

Conc: 20.00mg/L

8/20/2021 8:28:52 AM

TOC AQ CAL 072321.t32



| No. | Area  | Inj. Vol. | Aut.<br>Dil. | Rem.   | Ex. | Date / Time          |
|-----|-------|-----------|--------------|--------|-----|----------------------|
| 1   | 700.5 | 50uL      | 1            | ****** |     | 7/23/2021 1:46:20 PM |
| 2   | 706.3 | 50uL      | 1            | ****** |     | 7/23/2021 1:51:40 PM |

JL

| JL                                 |                             | 8/20/2021 8:28:52 AM TOC AQ CAL 072321.132                                                   |
|------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------|
| Acid Add.<br>Sp. Time<br>Mean Area | 1.500%<br>90.00sec<br>703.4 | Signal[mV] $400$<br>300<br>200<br>100<br>-40<br>0 2 4 6 8 10 12 14 16 18 20 Time[min]        |
| Siope:<br>Intercept<br>r^2         | 3.505<br>0.000<br>0.999978  | Area 771.101<br>600<br>400<br>200<br>0<br>20 40 60 80 100 120 140 160 180 200 220 Conc[mg/L] |

-----



# **DATA VERIFICATION REPORT – Stage 2B**

April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S08943 Sample date: 2021-12-29 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 8 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, TOC, COD, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

No qualifications were added to the submittal.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: CHLORIDE – Method blank QC batch WG312905. ALKALINITY – Method blank QC batch WG312546.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| ANALYTICAL SERVICES 600 Technology W<br>Scarborough, ME (<br>Tel: (207) 874-240<br>Fax: (207) 775-402           | 04074<br>0                                  |                      |                         | IAIN O<br>PLEASE BE<br>PRINT LE    | AR DOW   | N AND                              |            | e of                       |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------|-------------------------|------------------------------------|----------|------------------------------------|------------|----------------------------|
| client Arcadis - Seres JV                                                                                       | · }                                         | Contact<br>Heather L | Vesyue                  | Phone :<br>(619                    | *)370    | -037                               | Fax #      |                            |
| Address                                                                                                         | City                                        |                      | 1                       | State                              |          | ž                                  | Zip Code   |                            |
| Purchase Order #                                                                                                | Proj. Name / No                             | . Devens,            | 130041                  | 8392.0                             | 7F       | Katahdin                           | Quote #    |                            |
| Bill (if different than above)                                                                                  |                                             | Address              |                         |                                    |          | ne                                 |            |                            |
| Sampler (Print / Sign) Des MOND Bed                                                                             | avel Te                                     | remonel h            | Educk                   | $\cup$                             | Copi     | es To:                             |            |                            |
| LAB USE ONLY WORK ORDER #:<br>KATAHDIN PROJECT NU                                                               |                                             | 12                   |                         |                                    | PRESER   | ONTAINE<br>VATIVES                 |            |                            |
| REMARKS:                                                                                                        |                                             |                      |                         | Filt. Filt                         |          |                                    |            |                            |
|                                                                                                                 |                                             |                      | 5                       | Anios                              |          |                                    |            |                            |
| SHIPPING INFO:                                                                                                  | S 🗍 CLIEN                                   | 100                  | 1 etal                  | 33                                 | ~ ~      |                                    |            |                            |
|                                                                                                                 |                                             | NTACT                |                         | A NO                               | BU       |                                    |            |                            |
| * Sample Description Date / coll                                                                                |                                             | No. of<br>Cntrs.     | 01                      | 1 P                                |          |                                    |            |                            |
| MW-21-15-FF-EVENTHY 12/29/21/                                                                                   |                                             | 3 V                  |                         |                                    |          |                                    |            |                            |
| MW-21-15-EVENT#4 12/24/21/                                                                                      |                                             | 3                    |                         | VV                                 | 1/       |                                    |            |                            |
| 1 MW-21-10-FF-EVENT#4 12/29/21/                                                                                 |                                             | 3 V                  | V                       |                                    |          |                                    |            |                            |
| 2 MW-21-10-EVENT#4 12/29/21/                                                                                    |                                             | 3                    |                         | VV                                 | V        |                                    |            |                            |
| 3 MW-21-20-FF-EVENT#4 12/21/21/                                                                                 |                                             | 3 √                  | $\overline{\mathbf{V}}$ |                                    |          |                                    |            |                            |
| 4 MW-ZI-21D-EVENT#4 12/29/21/1                                                                                  |                                             | 3                    |                         | VV                                 | V        |                                    |            |                            |
| S MW-21-25-FF-EVENT#4 12/29/21/1                                                                                |                                             | 3 V                  | V                       |                                    |          |                                    |            |                            |
| 6 MW-21-25-E1/E/17#417124/21                                                                                    | 16:17 G-W                                   | 3                    |                         | VV                                 | V        |                                    |            |                            |
| 7 MW-21-45-FF-EVENT#4 12/29/21/                                                                                 | 17:10 GW                                    | 3 V                  | V                       |                                    |          |                                    |            |                            |
| 8 NW-21-45 - EVENT#4 12/29/21/                                                                                  | 17:10 6W                                    | 2                    |                         | VV                                 |          |                                    |            |                            |
| /                                                                                                               |                                             |                      |                         |                                    |          |                                    |            |                            |
| /                                                                                                               |                                             |                      |                         |                                    |          |                                    |            |                            |
| /                                                                                                               |                                             |                      |                         |                                    |          |                                    |            |                            |
| /                                                                                                               |                                             |                      |                         |                                    |          |                                    |            |                            |
| /                                                                                                               |                                             |                      |                         |                                    |          |                                    |            |                            |
|                                                                                                                 |                                             |                      |                         |                                    |          |                                    |            |                            |
| COMMENTS - D Katadin did not send la<br>-D Bottle Kit was short Z<br>Relinguished By: (Signature)   Date / Time | 50ml HAPEN                                  | N/ HNO3-             | p (unfi<br>Euro         | rmed ok                            | 12/28/   | 28/202<br>58 50W<br>2021<br>7 Time | ie bottle  | S Swoth<br>By: (Signature) |
| Semony / Kulary 12/30/21 10:00                                                                                  | Received By: (Sign<br>139/2021<br>TBuchamam | 10.00 B              | uchaman                 | By: (Signature<br>2021)<br>n 13:58 | , Date   | . , nine                           | The        | . (orgnature)              |
| Relinquished By: (Signature) Date / Time                                                                        | Received By: (Sign                          |                      |                         | By: (Signature                     | e) Date  | / Time                             | Received E | By: (Signature)            |
|                                                                                                                 | AND CONDITIONS (                            | <br>ON THE REVE      | RSE SIDE I              | HEREOF SH                          | ALL GOVE |                                    | <u> </u>   |                            |

SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.



### **DATA VERIFICATION REPORT – Stage 2B**

April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: SO8173 (see validation report R2200582 for DOC qualifications - subcontracted) Sample date: 2021-11-22, 11-23 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-29 Number of Samples: 20 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, DTOC, BOD, TDS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes:

NITRATE – sample -003 – UJ flag (result also qualified non-detect based on method blank detection noted below).

LCS - LCS and/or LCSD recovery outliers or the LCS/LCSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client samples that were included in this QC batch should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes: NITRATE – QC batch WG311079 – UJ flags – all samples (all results also qualified non-detect based on method blank detections noted below).

MBK - METHOD BLANKS had detections BELOW the Reporting Limit (RL) for the following parameters. The listed client sample results had concentrations LESS than 5X the method blank levels so client sample results reported below the RL are considered non-detect at the RL and qualified with U flags and results greater than the RL are non-detect at the sample concentration reported and qualified with U flags : NITRATE – QC batch WG311079 – UJ flags – all samples (all results also qualified estimated based on LCS recovery outlier noted above).

SULFATE – QC batch WG311079 – U flag – sample -009.

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased HIGH for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected (non-detect results do not require qualification): METALS sample -003 – J flags – MAGNESIUM, MANGANESE, POTASSIUM, SODIUM. METALS sample -008 – J flag – MANGANESE. The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required:
ALKALINITY – Method blank – ALL QC batches.
CHLORIDE Method blank QC batch WG311443.
SULFATE Method blank QC batches OK29ICW1, OK29ICW2 – Iron.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results: METALS sample -004 – iron. METALS sample -003 – calcium, iron.

METALS sample -008 – arsenic, iron. METALS sample -008 PDS – iron.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

#### **CHAIN of CUSTODY**

|               |                               | Technology Way<br>rborough, ME 04074 |                                             |                  |              | C                                       | CHAI                 | N of             | f CU         | STO      | DY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |           |        |
|---------------|-------------------------------|--------------------------------------|---------------------------------------------|------------------|--------------|-----------------------------------------|----------------------|------------------|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|--------|
| A             | NALVTICAL SERVICES            | (207) 874-2400<br>: (207) 775-4029   |                                             |                  |              |                                         |                      | SE BEA           |              |          | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Page      |           | of     |
| Clie          | Arcadis/Stres                 |                                      |                                             | Conta            | ct           |                                         |                      | Phone #          | )            |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| Add           | Iress                         |                                      | City                                        |                  |              |                                         |                      | State            | /            |          | Zip Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | de /      |           |        |
| Pur           | chase Order #                 | Pro                                  | j. Name /                                   | No. De           | VPINC        | ASP                                     | ilat 3               | 100239           | 12           | Katah    | Fax #       (       )         Zip Code       Katahdin Quote #         ies To:       ONTATIVES         PID       Filt.       Filt.         PID       PID         PID |           |           |        |
| Bill          | (if different than above)     |                                      |                                             |                  | ddress       | , , , , , , , , , , , , , , , , , , , , | 3                    | 00100            | 92           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| San           | npler (Print / Sign)          | alle Hu                              | an Al                                       | affe             |              |                                         |                      |                  | Co           | pies To: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| LA            | B USE ONLY WORK ORDE          | R#: 50 81                            | 73                                          | ULKIUT           |              |                                         |                      | ANALYSI          |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PE        |           |        |
|               |                               | ROJECT NUMBER _                      |                                             |                  |              |                                         |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | Filt.     |        |
|               |                               |                                      |                                             |                  |              |                                         | THN                  | (HOSI            |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               |                               | 🗇 UPS                                | CLIE                                        | NT               | 100          | NET ALE                                 | Dissolved Mctals/HNS | TOC (H284)       |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| 0.57 10092000 | BILL NO:                      |                                      | 🗖 NOT                                       | INTACT           | Mafe         | n little                                | NUN N                | 100              |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| *             | Sample Description            | Date / Time<br>coll'd                | Matrix                                      | No. of<br>Cntrs. |              | N HAN                                   | Disse                | Distelved        | 404          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | SHM-10-06-Event#2             | 11/22/22/10:40                       | Gw                                          | 2                |              | ' /                                     |                      | <del>(~~*)</del> |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           | +      |
|               | SHM-10-06-FF-Event#2          | 11/22/21/10:45                       | GW                                          | 3                |              |                                         | V                    | $\checkmark$     |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | MW-ZI-45-EVENT#Z              |                                      | GW                                          | Z                | $\checkmark$ | V                                       |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | 1W-21-45-EVENT#2-FF           | 11/22/21/10:25                       | GW                                          | 3                |              |                                         | V                    | V                |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | 1W-21-45-EVENT#2-MS           | 11/22/21/10:25                       | GW                                          | 2                | V            | V                                       |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | MW-21-45-EVENTE2-FF-MS        | 11/22/21/10:25                       | GW                                          | 3                |              |                                         | V                    | V                |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | W-21-45-EVENT#2-M50           | 11/22/21/10:25                       | GW                                          | 2                | V            | V                                       |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | MW-21-45-EVEN7#2-FF-MSD       | 11/22/21/ 10:25                      | GW                                          | 3                |              |                                         | V                    | V                |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | MW-21-3D-Even+#2              |                                      | Gw                                          | 2                | $\checkmark$ | ·   🗸                                   |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | MW-21-3D-FF-Event#            | 2 1/22/2/12:57                       | GW                                          | 3                |              |                                         | $\checkmark$         | $\checkmark$     |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | MW-21-4D-EVEN7#2              |                                      | 6W                                          | 2                | $\checkmark$ | V                                       |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| /             | 1W-21-410-FF-EVEN7#2          | 11/22/21 / 12:50                     | GW                                          | 3                |              |                                         | V                    | ~                |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| 1             | *1W-21-35-Event#2             | 11/22/21/14:30                       | Gw                                          | 2                | $\checkmark$ | $\checkmark$                            |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | MW-21-35-FF-Exent             | 1/22/11/14:35                        | GW                                          | 3                |              |                                         | /                    | $\checkmark$     |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| М             | W-21-210-EVENT#2              | 11/22/21/14:55                       | GW                                          | 3                | $\checkmark$ | V                                       |                      |                  | $\checkmark$ |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
|               | 1W-2/-20-FF-EVENT#2           | 11/22/21/14:55                       | GW                                          | 3                |              |                                         | $\checkmark$         | V                |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| СОММ          | ENTS                          |                                      |                                             |                  |              |                                         |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |
| Reli          | nquished By: (Signature) Date | / Time Receiv                        | ed By: (Si                                  | gnature)         | F            | lelinquish                              | ed By: (S            | ignature)        | Dat          | te / Tir | ne R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | eceived B | y: (Signa | ature) |
| Relir         | nquished By: (Signature)      | 3 13:36 Bul                          | 123/262<br>123/262<br>MOLAON<br>ed By: (Sig | 13:3             | 5 1:         | <u>Sucha</u><br>Ielinquishe             | noen                 | 15:44            | L            | te / Tir |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A         |           |        |
|               |                               |                                      |                                             |                  |              |                                         |                      |                  |              |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |        |

600 Technology Way

#### **CHAIN of CUSTODY**

|     |                                                                                                                                    | Technology Way<br>rborough, ME 04074 |                   | CHAIN of CUSTODY<br>PLEASE BEAR DOWN AND |                   |                 |                   |              |                    |         |           |           |        |
|-----|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------|------------------------------------------|-------------------|-----------------|-------------------|--------------|--------------------|---------|-----------|-----------|--------|
|     | ANALYTICAL SERVICES                                                                                                                | (207) 874-2400<br>:: (207) 775-4029  |                   |                                          |                   | PLEA            | SE BEA            | R DOV        | /N AND<br>I PEN    |         | Page      | 0         | of     |
| CI  | Arcadis /Scres                                                                                                                     | 2                                    | Conta             | ict                                      |                   | (               | Phone #           | )            |                    | Fa<br>( | ax #<br>) |           |        |
| Ad  | dress                                                                                                                              | City                                 | ,<br>,            |                                          |                   | S               | State             |              |                    | Zip Cod | le        |           |        |
| Ρι  | rchase Order #                                                                                                                     | Proj. Name                           | e/No. D           | evene                                    | AS                | Pilot           | 300               | 48392        | Katahdi            | n Quote | #         |           |        |
| Bil | I (if different than above)                                                                                                        |                                      |                   | ddress                                   |                   |                 |                   |              |                    |         |           |           |        |
| Sa  | mpler (Print / Sign) Grace                                                                                                         | Sheckler Hugo                        | e she             | bher                                     |                   |                 |                   | Сор          | ies To:            |         |           |           |        |
| L   | AB USE ONLY WORK ORDI                                                                                                              | ER #: S o 参 名に<br>ROJECT NUMBER      | 3                 | <b>5</b> 14                              | E:h               |                 |                   | PRESER       | CONTAIN<br>VATIVES |         |           |           |        |
| RE  | MARKS:                                                                                                                             |                                      |                   |                                          |                   |                 |                   |              | Filt.              |         |           |           |        |
| _   |                                                                                                                                    |                                      |                   | etals/HAC                                | TOS<br>CALANIA NÃ | HKhis<br>H Nos) | 20                |              |                    |         |           |           |        |
|     | IIPPING INFO: 🗂 FED EX                                                                                                             |                                      | LIENT             | tote                                     | 1 10              | HKHI H NOS      | So4 TO            | A            |                    |         |           |           |        |
| TE  | MP°C TEMP BLAN                                                                                                                     |                                      |                   | Total A                                  | Alkelmit          | (1)             | Dissolved<br>(H2S | BOD          |                    |         |           |           |        |
| *   | Sample Description                                                                                                                 | Date / Time<br>coll'd Matri          | ix No. of Cntrs.  | 4                                        | Alka              | Diss            | Diss              |              |                    |         |           |           |        |
|     | MW-21-25-Event#2                                                                                                                   | 11/23/21/ 10:47 GW                   | 3                 | $\checkmark$                             | $\checkmark$      |                 |                   | $\checkmark$ |                    |         |           |           |        |
|     | MW-21-25-FF-Exenter                                                                                                                | 11/23/21/10:51 GW                    |                   |                                          |                   | V               | $\checkmark$      |              |                    |         |           |           |        |
|     | MW-21-15-Excnt#2                                                                                                                   | 11/23/11.12 GW                       | J 3               | V                                        | $\checkmark$      |                 |                   | $\checkmark$ |                    |         |           |           |        |
|     | MW-21-15-FF Event#                                                                                                                 | 1/23/11:52 GW                        | 13                |                                          |                   | $\checkmark$    | 1                 |              |                    |         |           |           |        |
|     | MW-21-15 - Event#2-D                                                                                                               | 1/3/11:42 GW                         | J 332             | $\sim$                                   | $\checkmark$      |                 |                   | <            |                    |         |           |           |        |
|     | MW-21-15-A-5-0+#2                                                                                                                  | Dup 11/23/11:52 GW                   | 5 1               |                                          |                   | V               | V                 |              |                    |         |           |           |        |
|     | MW-21-1D-EVENH#2                                                                                                                   | 1423/2/13:03 GW                      | 3                 | V                                        | ~                 |                 |                   | /            |                    |         |           |           |        |
|     | MW-21-ID-FF-Exent                                                                                                                  | 21/23/21/13:10 GW                    | -                 |                                          |                   | V               |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     |                                                                                                                                    | /                                    |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
| СОМ | MENTS                                                                                                                              |                                      |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
| Re  | elinquished By: (Signature) Date / Time Received By: (Signature) Relinquished By: (Signature) Date / Time Received By: (Signature) |                                      |                   |                                          |                   |                 |                   |              |                    |         |           |           |        |
|     | har Alisele 11/2                                                                                                                   | 1/23/                                | 2001<br>1000 13:3 | 35 R                                     | 11/2              | 3/202           | 15:44             |              | 2 7 THU            |         | K         | grid      |        |
| Re  | linquished By: (Signature)                                                                                                         | A / Time Received By:                | (Signature)       | Re                                       | elinquishe        | ed By: (Si      | gnature)          |              | e / Tim            | e Red   | ceived B  | y: (Signa | iture) |
|     |                                                                                                                                    |                                      |                   | _                                        |                   |                 |                   |              |                    | _       |           |           |        |

-

|                   |              | Sample Name:<br>Lab Sample ID:<br>Sample Date: |        | -1DLY  | T #2  |           | MW-21-<br>SO8173<br>11/22/2 |        | T#2   |           | MW-21-<br>SO8173-<br>11/22/2 |        | T#2   |           | MW-21<br>SO8173<br>11/22/2 |        | T#2   |           | MW-21-4D<br>SO8173-00<br>11/22/21 |        | ŧ2    |           |
|-------------------|--------------|------------------------------------------------|--------|--------|-------|-----------|-----------------------------|--------|-------|-----------|------------------------------|--------|-------|-----------|----------------------------|--------|-------|-----------|-----------------------------------|--------|-------|-----------|
|                   |              |                                                |        | Report |       | Valid     |                             | Report |       | Valid     |                              | Report |       | Valid     |                            | Report |       | Valid     |                                   | Report |       | Valid     |
|                   | Analyte      | Cas No.                                        | Result | Limit  | Units | Qualifier | Result                      | Limit  | Units | Qualifier | Result                       | Limit  | Units | Qualifier | Result                     | Limit  | Units | Qualifier | Result                            | Limit  | Units | Qualifier |
| Metals            |              |                                                |        |        |       |           |                             |        |       |           |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
| <u>SW6010C</u>    |              |                                                |        |        |       |           |                             |        |       |           |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
|                   | Magnesium    | 7439-95-4                                      |        |        |       |           | 6260                        | 100    | ug/l  | J         |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
|                   | Manganese    | 7439-96-5                                      |        |        |       |           | 1280                        | 5      | ug/l  | J         |                              |        |       |           |                            |        |       |           | 1750                              | 5      | ug/l  | J         |
|                   | Potassium    | 7440-09-7                                      |        |        |       |           | 9840                        | 1000   | ug/l  | J         |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
|                   | Sodium       | 7440-23-5                                      |        |        |       |           | 14700                       | 1000   | ug/l  | J         |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
| General Chemistry |              |                                                |        |        |       |           |                             |        |       |           |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
| <u>SW9060A</u>    |              |                                                |        |        |       |           |                             |        |       |           |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
|                   | Sulfate      | 14808-79-8                                     |        |        |       |           |                             |        |       |           |                              |        |       |           |                            |        |       |           |                                   |        |       |           |
|                   | Nitrate as N | 14797-55-8                                     | ND     | 0.058  | mg/l  | UJ        | ND                          | 0.23   | mg/l  | UJ        | ND                           | 0.06   | mg/l  | UJ        | ND                         | 0.05   | mg/l  | UJ        |                                   |        |       |           |

|                   |              | Sample Name:<br>Lab Sample ID:<br>Sample Date: |        | -9DLY  | #2    |           | MW-21<br>SO8173<br>11/22/2 |        | T#2   |           | MW-21-<br>SO8173<br>11/23/2 |        | T#2   |           | MW-21<br>SO8173<br>11/23/2 |        | Γ#2   |           | MW-21-<br>SO8173-<br>11/23/2 | 17DLY  | T#2-DUP |           |
|-------------------|--------------|------------------------------------------------|--------|--------|-------|-----------|----------------------------|--------|-------|-----------|-----------------------------|--------|-------|-----------|----------------------------|--------|-------|-----------|------------------------------|--------|---------|-----------|
|                   |              |                                                |        | Report |       | Valid     |                            | Report |       | Valid     |                             | Report |       | Valid     |                            | Report |       | Valid     |                              | Report |         | Valid     |
|                   | Analyte      | Cas No.                                        | Result | Limit  | Units | Qualifier | Result                     | Limit  | Units | Qualifier | Result                      | Limit  | Units | Qualifier | Result                     | Limit  | Units | Qualifier | Result                       | Limit  | Units   | Qualifier |
| Metals            |              |                                                |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
| <u>SW6010C</u>    |              |                                                |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Magnesium    | 7439-95-4                                      |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Manganese    | 7439-96-5                                      |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Potassium    | 7440-09-7                                      |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Sodium       | 7440-23-5                                      |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
| General Chemistry |              |                                                |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
| <u>SW9060A</u>    |              |                                                |        |        |       |           |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Sulfate      | 14808-79-8                                     | ND     | 6.4    | mg/l  | U         |                            |        |       |           |                             |        |       |           |                            |        |       |           |                              |        |         |           |
|                   | Nitrate as N | 14797-55-8                                     | ND     | 0.05   | mg/l  | UJ        | ND                         | 0.053  | mg/l  | UJ        | ND                          | 0.06   | mg/l  | UJ        | ND                         | 0.15   | mg/l  | UJ        | ND                           | 0.16   | mg/l    | UJ        |

|                   |              | Sample Name:<br>Lab Sample ID:<br>Sample Date: | MW-21<br>SO8173<br>11/23/2 |        | IT#2  |           |
|-------------------|--------------|------------------------------------------------|----------------------------|--------|-------|-----------|
|                   |              | ounpie Datei                                   | 11/20/2                    | Report |       | Valid     |
|                   | Analyte      | Cas No.                                        | Result                     | Limit  | Units | Qualifier |
| Metals            |              |                                                |                            |        |       |           |
| <u>SW6010C</u>    |              |                                                |                            |        |       |           |
|                   | Magnesium    | 7439-95-4                                      |                            |        |       |           |
|                   | Manganese    | 7439-96-5                                      |                            |        |       |           |
|                   | Potassium    | 7440-09-7                                      |                            |        |       |           |
|                   | Sodium       | 7440-23-5                                      |                            |        |       |           |
| General Chemistry |              |                                                |                            |        |       |           |
| <u>SW9060A</u>    |              |                                                |                            |        |       |           |
|                   | Sulfate      | 14808-79-8                                     |                            |        |       |           |
|                   | Nitrate as N | 14797-55-8                                     | ND                         | 0.056  | mg/l  | UJ        |



### **DATA VERIFICATION REPORT – Stage 2B**

April 28, 2020

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: SO8914 (see validation report R2200581 for DOC qualifications - subcontracted) Sample date: 2021-12-28, 12-29 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-27 Number of Samples: 13 Sample Matrices: Groundwater Test Categories: METALS, TOC, NITRATE, SULFATE, CHLORIDE, ALKALINITY, BOD, TDS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased HIGH for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected. Non-detect results do not require qualification: METALS – sample -001 – SODIUM – J flags.

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client sample spiked only, should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect: SULFATE – sample -001 – J flag. NITRATE – sample -001 – UJ flag.

DUP - Sample result indicated should be considered estimated and qualified with a J flag due to laboratory duplicate RPD outlier for the sample/test/analyte(s) noted: TDS sample -005 – J flag.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: CHLORIDE – Method blank – WG312905. ALKALINITY – Method blank QC batches WG312434, WG312546.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results:

METALS sample -001 – manganese, calcium, iron.

METALS sample -002 – arsenic, iron.

METALS sample -010 – iron.

PDS outliers for samples -001, -002 IRON were also subject to 4X criteria exception.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

**Project Scientist** 

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|    | ANALYTICAL SERVICES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Technology Way<br>borough, ME 04074<br>(207) 874-2400<br>: (207) 775-4029 | PLEA      | SE BE/           | CUS          |              | DY             | Page             |        | of                    |         |                    |         |          |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------|------------------|--------------|--------------|----------------|------------------|--------|-----------------------|---------|--------------------|---------|----------|
| С  | lient Arcadis - Seres J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ΣV                                                                        |           | Conta<br>Hea     | ct<br>ther L | evesqu       | IP I           | Phone #<br>( 6/9 | ) 370  | )-03                  | 74 (    | ax #               |         |          |
| A  | ddress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                           | City      |                  |              |              |                | State            |        |                       | Zip Coo | de                 |         |          |
| P  | urchase Order #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pro                                                                       | j. Name / | No. Oer          | rens /       | 300          | 48393          | F0.5             | P      | Katahdi               | n Quote | #                  |         |          |
| Bi | ill (if different than above)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                           |           | Ad               | dress        | ,            |                |                  |        |                       |         |                    |         |          |
| Si | ampler (Print / Sign) Desmond                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bedard                                                                    | Domon     | A Re             | Auro         | 1            |                |                  | Сор    | ies To:               |         |                    |         |          |
| L  | AB USE ONLY WORK ORDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 200.                                                                      |           |                  |              |              |                |                  | PRESER | CONTAIN<br>VATIVES    | 3       |                    |         |          |
| R  | KATAHDIN PI<br>EMARKS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ROJECT NUMBER _                                                           |           | <u> </u>         |              |              |                |                  |        |                       | Filt.   |                    |         |          |
| _  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                           | - 1       |                  |              | 2            |                | , Jonie          |        |                       |         |                    |         |          |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 🗖 UPS                                                                     | CLIE      | NT               | 000          | 1 el         | letulo 3       | 100              |        |                       |         |                    |         |          |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                           |           | INTACT           | 1. 2         | S.           | otel 1<br>LINO | 10mg             | 00 m   |                       |         |                    |         |          |
| *  | Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Date / Time<br>coll'd                                                     | Matrix    | No. of<br>Cntrs. | 115.<br>H    | 01           | 700            | AIKa             | 8 2    |                       |         |                    |         |          |
|    | MW-21-30 - EVENT# 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12/28/21/10:13                                                            | GW        | 2                |              |              | $\checkmark$   | V                |        |                       |         |                    |         |          |
|    | MW -21 -30-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12/28/21/ 10:13                                                           | GW        | 3                | V            | $\checkmark$ |                |                  |        |                       |         |                    |         |          |
|    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12/28/21/ 10:13                                                           | GW        | 2                |              |              | $\checkmark$   | V                |        |                       |         |                    |         |          |
|    | MW-21-30-FF-EVENT#4-MS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/28/21/ 10:13                                                           | GW        | 3                | V            | V            |                |                  |        |                       |         |                    |         |          |
|    | NW-21-30-EVENT+44-MSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1                                                                         | GW        | Z                |              |              | v              | V                |        |                       |         |                    |         |          |
|    | MW-21-30-EVENT#4-MSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12/28/21/ 10:B                                                            | GW        | 3                | $\checkmark$ | V            |                |                  |        |                       |         |                    |         |          |
|    | AS-DUP-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12/28/21/ 11:60                                                           | 6 W       | Z                |              |              | V              | V                |        |                       |         |                    |         |          |
|    | AS-DUP-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12/28/21/ 11:00                                                           | GW        | 3                | $\checkmark$ | $\checkmark$ |                |                  |        |                       |         |                    |         |          |
|    | MW-21-35-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12/28/21/12:15                                                            | 6W        | Z                |              |              | V              | V                |        |                       |         |                    |         |          |
|    | MW-21-35-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12/28/2/12:15                                                             | GW        | 3                | $\vee$       | $\vee$       |                |                  | 1 1    |                       |         |                    |         |          |
|    | SHM-10-06-EVEN7#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12/28/21/14:05                                                            | GW        | 2                |              |              | $\vee$         | $\checkmark$     |        |                       |         |                    |         |          |
|    | SHM-10-06-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12/28/21/14:05                                                            | GW        | 3                | V            | V            |                |                  |        |                       |         |                    |         |          |
|    | MW-21-40-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12/28/21/15:29                                                            | GW        | 322              | Y            | TA           |                |                  |        |                       |         |                    |         |          |
|    | MW-21-4D-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12/28/21/15:29                                                            | GW        | 0823             |              | $\checkmark$ | V              | V                | 4-     | Dis. Mete<br>containe | is sam  | le in a<br>be filt | ered in | eserved. |
|    | MW-21-15-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                           | GW        | 3                | $\checkmark$ | $\checkmark$ |                |                  |        |                       |         |                    |         |          |
|    | MW-21-15-FF-EVENT#4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12/29/21/11:35                                                            | GW        | 3                |              |              | $\vee$         |                  | V      |                       |         |                    |         |          |
| R  | MMENTS         Lab did not send lobels as requested - D called lab @ 10:16 on 12/28/21 and (on fimed it Was         Relinquished By: (Signature)         Date / Time       Received By: (Signature)         12/29/2021         Relinquished By: (Signature)         12/29/2021         Date / Time         Received By: (Signature)         12/29/2021         Date / Time         Received By: (Signature)         Relinquished By: (Signature)         Date / Time         Received By: (Signature)         Relinquished By: (Signature)         Date / Time         Received By: (Signature)         Relinquished By: (Signature)         Date / Time         Received By: (Signature)         Relinquished By: (Signature)         Date / Time         Received By: (Signature)         Relinquished By: (Signature)         Date / Time         Received By: (Signature) |                                                                           |           |                  |              |              |                |                  |        |                       |         |                    |         |          |
|    | <br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IE TERMS AND CO                                                           | NDITIONS  | S ON TH          | IE REVE      | RSE SIL      | DE HERE        | OF SHA           |        | ERN                   |         |                    |         |          |

SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

|           |                                 |                            | Sample Name:<br>Lab Sample ID:<br>Sample Date: | MW-21-<br>SO8914-<br>12/28/2 |             | T#4          | Valid     | MW-21-3S-EVENT#4<br>SO8914-5<br>12/29/21<br>Valid Report |       |       |                    |  |
|-----------|---------------------------------|----------------------------|------------------------------------------------|------------------------------|-------------|--------------|-----------|----------------------------------------------------------|-------|-------|--------------------|--|
|           |                                 | Analyte                    | Cas No.                                        | Result                       | Limit       | Units        | Qualifier | Result                                                   | Limit | Units | Valid<br>Qualifier |  |
| Metals    | <u>OSW-6010</u>                 | <u>)C</u><br>Sodium, Total | 7440-23-5                                      | 16300                        | 1000        | ug/l         | J         |                                                          |       |       |                    |  |
| General C | Chemistry<br>SW9056A<br>SM2540C | Sulfate<br>Nitrate as N    | 14808-79-8<br>14797-55-8                       | 22<br>ND                     | 0.5<br>0.05 | mg/l<br>mg/l | U)<br>I   |                                                          |       |       |                    |  |
|           | 51125 100                       | TDS                        | 10-31-2                                        |                              |             |              |           | 120                                                      | 10    | mg/l  | J                  |  |



### **DATA VERIFICATION REPORT – Stage 2B**

April 28, 2020

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: SP0317 Sample date: 2022-01-19, 01-20 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-27 Number of Samples: 20 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, BOD, TDS Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased HIGH for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected. Non-detect results do not require qualification: METALS – sample -005 – MANGANESE – J flags.

DUP - Sample result indicated should be considered estimated and qualified with a J flag due to laboratory duplicate RPD outlier for the sample/test/analyte(s) noted: TDS sample -005 – J flag.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: METALS – Method blank – 24ICW1 – CALCIUM. ALKALINITY – Method blank QC batch WG313409.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results: METALS sample -005 – arsenic, calcium, iron. METALS sample -006 – arsenic, iron. Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

# Katahdin Scarborough, ME 04074

600 Technology Way Tel: (207) 874-2400

#### **CHAIN of CUSTODY**

| ANALYTICAL SERVICES             | l: (207) 874-2400<br>x: (207) 775-4029 |             |                  |              |                               |              | SE BEA<br>NT LEG |                       | VN AND<br>I PEN    |         | Page     | (          | of     |
|---------------------------------|----------------------------------------|-------------|------------------|--------------|-------------------------------|--------------|------------------|-----------------------|--------------------|---------|----------|------------|--------|
| Client Arcadis                  |                                        |             | Conta            | ct           |                               | (            | Phone #          | )                     | ii.                | F<br>(  | ax #     |            |        |
| Address                         |                                        | City        |                  |              | i bar na tanan shi sa sana sa | ę            | State            |                       |                    | Zip Coc | le       |            |        |
| Purchase Order #                | Pro                                    | oj. Name /  | No. 31           | 5048         | 392                           |              |                  |                       | Katahdi            | n Quote | #        |            |        |
| Bill (if different than above)  |                                        |             |                  | ldress       |                               |              |                  |                       |                    | _       |          |            |        |
| Sampler (Print / Sign) Grace S  | beckler M                              | inn.        | Shic             | kl.          |                               |              |                  | Сор                   | ies To:            |         |          |            |        |
| LAB USE ONLY WORK ORE           | DER #: 5P031                           | 7           |                  |              |                               | A            |                  |                       | CONTAIN<br>VATIVES |         | E        |            |        |
| KATAHDIN<br>REMARKS:            | PROJECT NUMBER                         |             |                  | Filt.        |                               | Filt         |                  |                       |                    |         |          | Filt.      | Filt.  |
|                                 |                                        |             |                  | 5            | tak                           | 2            |                  |                       |                    |         |          |            |        |
| SHIPPING INFO: 🗇 FED EX         | 🗂 UPS                                  |             | NT               | Hetals       | 1 He                          | X            |                  |                       |                    |         |          |            |        |
| AIRBILL NO: TEMP BLA            |                                        |             | INTACT           |              | HNO                           | -141         | 0                |                       |                    |         |          |            |        |
| * Sample Description            | Date / Time<br>coll'd                  | Matrix      | No. of<br>Cntrs. | Total        | Dissolud Heta                 | Alkalinitu   | 361              |                       |                    |         |          |            |        |
| MW-21-1D-Event 5                | 1/19/27/11:48                          | GW          | 3                | $\checkmark$ |                               |              |                  |                       |                    |         |          |            |        |
| MW-21-1D-FF-Frent               | 5/19/22/11:48                          | GW          | 1                |              | $\checkmark$                  |              |                  | onno obnedi u so<br>2 |                    |         |          |            |        |
| MW-21-10-Even#5 Dr              | 0 1/19/22/11:48                        |             | 3                | V            |                               | 1            | $\checkmark$     |                       |                    |         |          |            |        |
| HW-21-1D-FF-Event               | Di/19/27/ 11:48                        | GW          | 1                |              | $\checkmark$                  |              |                  |                       |                    |         |          |            |        |
| MW-21-40-FF-EVENTHS             | 01119/22/12:54                         | GW          | 1                |              | $\checkmark$                  |              |                  |                       |                    |         |          |            |        |
| MW-21-40-EVENT#5                | 1                                      | GW          | Z                | V            |                               | V            |                  |                       |                    |         |          |            |        |
| MW-21-40-FF-EVENT#5-MS          | 01/19/22/12:54                         | G-W         | 1                |              | V                             |              |                  |                       |                    |         |          |            |        |
| MW-21-40-EVENT#5-MS             |                                        | GW          | Z                | $\checkmark$ |                               | V            |                  |                       |                    |         |          |            |        |
| MW-ZI-YD-FF-EVENT#5-MSD         | 01/19/22/12:54                         | GW          | 1                |              | V                             |              |                  |                       |                    |         |          |            |        |
| MW-ZI-4D-EVENT#5-MSD            |                                        |             | 2                | $\checkmark$ |                               | V            |                  |                       |                    |         |          |            |        |
| MW-21-18-Event #5               | 5 1/19/22/13:29                        | GW          | 3                | $\checkmark$ |                               | $\vee$       | $\checkmark$     |                       |                    |         |          |            |        |
| HW-21-1S-FF-Eart+               | 5 119/22/13:29                         | GW          | 1                |              | $\checkmark$                  |              |                  |                       |                    |         |          |            |        |
| MW-21-45-FF-EVENT#5             | 01/19/22/15:05                         | GW          | 1                |              | V                             |              |                  |                       |                    |         |          |            |        |
| MW-ZI-45-EVENT#5                | 04/19/22/15:05                         | 6W          | 2                | V            |                               | $\checkmark$ |                  |                       |                    |         |          |            |        |
| SHM-10-06-FF-Eunt               | \$ YA12/15:25                          | GW          | 2                | $\checkmark$ |                               | /            |                  |                       |                    |         |          |            |        |
|                                 | 5 VIV2/ 15:05                          | GW          | 1                |              | $\checkmark$                  |              |                  |                       |                    |         |          |            |        |
| COMMENTS                        |                                        |             |                  |              |                               |              |                  |                       |                    |         |          |            |        |
| Relinquished By: (Signature) Da | te / Time Receiv                       | ved By: (Si | ignature)        | Re           | elinquishe                    | ed By: (S    | ignature)        | Dat                   | e / Tim            | e Re    | ceived B | By: (Signa | ature) |
|                                 | 0/2 Hill Biche                         | inan        | 141.00           | Bu           | char                          | wh           | 15:54            | - 1120                | 12 153             |         | V        | A          | /      |
| Relinquished By: (Signature) Da | te / Time Receiv                       | ved By: (Si | ignature)        | Re           | elinquishe                    | ed By: (S    | ignature)        | Dát                   | e / Tim            | e Re    | ceived B | sy: (Signa | ature) |
|                                 |                                        |             |                  |              |                               |              |                  |                       |                    |         |          |            |        |

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED COKRAMINA ANALYTICAL SERVICES SP0317 Page 8 of 185

#### **CHAIN of CUSTODY**

|     |                                  | Technology Way<br>rborough, ME 04074 |            |                  |              | С            | HAI                     | N of             | CUS     | STO     | DY           |          |           |        |
|-----|----------------------------------|--------------------------------------|------------|------------------|--------------|--------------|-------------------------|------------------|---------|---------|--------------|----------|-----------|--------|
|     | ANALVTICAL SERVICES              | (207) 874-2400<br>: (207) 775-4029   |            |                  |              |              | PLEA<br>PRI             | SE BEA           | R DOV   | VN AND  |              | Page     | · (       | of     |
| С   | lient Arcadis                    |                                      |            | Conta            | ict          |              |                         | Phone #          | )       |         | F            | ax #     |           |        |
| A   | ddress                           |                                      | City       |                  |              |              |                         | State            | )       |         | (<br>Zip Cod | )<br>te  |           |        |
| Pi  | urchase Order #                  | Pro                                  | j. Name /  | No. 3            | 0040         | 1297         |                         |                  |         | Katahd  | in Quote     |          |           |        |
| Bi  | II (if different than above)     |                                      |            |                  | dress        | 0012         | -                       |                  |         |         |              |          |           |        |
| Sa  | ampler (Print / Sign)            | SI. II                               | lp         |                  | 11 6.        |              |                         |                  | Сор     | ies To: |              |          |           |        |
| _   | AB USE ONLY WORK ORDE            | Sheckler 5<br>BR#: 5P031-            | HIN /      | as               | and          | ~            | ł                       | ANALYSI          | S AND ( | CONTAIN |              | E        |           |        |
|     | KATAHDIN P                       | ROJECT NUMBER _                      |            |                  |              |              | Filt.                   |                  |         |         |              | Filt.    | Filt.     | Filt.  |
| RI  | EMARKS:                          |                                      |            |                  |              | ta Is        | S                       |                  |         |         |              |          |           |        |
|     |                                  | 🗇 UPS                                |            | NT               | Metals       | d Mc         | TTAY                    |                  |         |         |              |          |           |        |
|     | EMP°C                            |                                      |            | INTACT           | NH II        | HNOG         | Alkalinit               | BOD              |         |         |              |          |           |        |
| *   | Sample Description               | Date / Time<br>coll'd                | Matrix     | No. of<br>Cntrs. | 101          | D.S.H        | Alka                    | 60               |         |         |              |          |           |        |
|     | MW-21-35-Exnt#                   | 1/24/2017 10:33                      | GW         | 2                |              |              | $\overline{\mathbf{V}}$ |                  |         |         |              |          |           |        |
|     | MW-21-35-FF-Exent#               | 5 /hy1/ 10:33                        | GW         | 1                |              | $\checkmark$ |                         |                  |         |         |              |          |           |        |
|     | MW-21-30-Event#5                 | 1/20/22/11:31                        | GW         | 2                | $\checkmark$ |              | ~                       |                  |         |         |              |          |           |        |
|     | MW-21-30-FF-Eunt#5               | 1/20/22/11:31                        | GW         | 1                |              | V            |                         |                  |         |         |              |          |           |        |
|     | MW-21-25-Ecnt#5                  | 1/20/12:35                           | GW         | 3                | V            |              | /                       | $\checkmark$     |         |         |              |          |           |        |
|     | MW-21-25-FF-Eurt#E               |                                      |            | 1                |              | $\checkmark$ |                         |                  |         |         |              |          |           |        |
|     | MW-21-2D-Event#5                 | 120124 15:38                         | GW         | 3                | V            |              | 1                       | $\checkmark$     |         |         |              |          |           |        |
|     | MW-21-2D-FF-Exon+#5              | 1/1/13:38                            | GW         | 1                |              | $\checkmark$ |                         |                  |         |         |              |          |           |        |
|     |                                  | · /                                  |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
|     |                                  | /                                    |            |                  |              |              |                         |                  |         |         |              |          |           |        |
| COM | MENTS                            |                                      |            |                  |              |              |                         |                  |         |         |              |          |           |        |
| Re  | elinquished By: (Signature) Date | / Time Receiv                        | ed By: (Si | gnature)         | Re           | elinquishe   | ed By: (S               | ignature)<br>しいし | Date    | e / Tim | e Re         | ceived B | y: (Siana | iture) |
|     |                                  | 27 14:00 1Bed                        | avan       | 14:00            | 1            | ucha         | man                     | 15:54            | 1 1/20  | 122 153 | 57 /11       | In       |           |        |
| Re  | elinquished By: (Signature) Date | / Time Receiv                        | ed By: (Si | gnature)         | Re           | elinquishe   | ed By: (S               | ignature)        | Date    | e / Tim | e Re         | ceived B | y: (Signa | ture)  |
|     |                                  |                                      |            |                  |              |              |                         |                  | -       |         |              |          |           |        |

600 Technology Way

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTION AND A SIGNED CONTRACTICA AND A SIGNED

|           |                                     | Sample Name:<br>Lab Sample ID:<br>Sample Date: | MW-21-<br>SP0317-<br>01/19/2 |       | IT#5  | Valid     |
|-----------|-------------------------------------|------------------------------------------------|------------------------------|-------|-------|-----------|
|           | Analyte                             | Cas No.                                        | Result                       | Limit | Units | Qualifier |
| Metals    | <u>OSW-6010C</u><br>Mnganese, Total | 7439-96-5                                      | 1370                         | 5     | ug/l  | J         |
| General C | C <b>hemistry</b><br>SM2540C<br>TDS | 10-31-2                                        | 140                          | 10    | mg/l  | J         |



### **DATA VERIFICATION REPORT – Stage 2B**

April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: SP0783 Sample date: 2022-02-16 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-29 Number of Samples: 20 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, DOC, BOD, TDS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes: NITRATE – sample -017 – UJ flag.

LCS - LCS and/or LCSD recovery outliers or the LCS/LCSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client samples that were included in this QC batch should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes: TDS QC batch WG314323 – UJ flag – sample -009, J flags – samples -011, -013, -015, -017, -019. (note: test was re-run outside of hold time with similar results).

MBK - METHOD BLANKS had detections BELOW the Reporting Limit (RL) for the following parameters. The listed client sample results had concentrations LESS than 5X the method blank levels so client sample results reported below the RL are considered non-detect at the RL and qualified with U flags and results greater than the RL are non-detect at the sample concentration reported and qualified with U flags : DOC QC batch WG314225 – U flags – samples -004, -006, -012, -014, -016, -018.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: ALKALINITY – Method blank QC bath WG314455 METALS – Method blank PB22ICW1 – Calcium, sodium.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results: METALS sample -017 – iron.

METALS sample -018 – arsenic, iron, manganese.

METALS sample -017 PDS – calcium, magnesium, iron. (note: arsenic low bias for PDS only was not used to qualify field sample results since MS/MSD recoveries were acceptable). METALS sample -018 PDS – iron.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Katahdin Scar                    | borough, ME 04074<br>(207) 874-2400 |                      |                    |                    | C            |             |                         |              | STOD               | Y       |              | 1                              | C      |
|----------------------------------|-------------------------------------|----------------------|--------------------|--------------------|--------------|-------------|-------------------------|--------------|--------------------|---------|--------------|--------------------------------|--------|
| Client a l                       | (207) 775-4029                      |                      | Conta              | ct                 |              | PRI         | NT LEG                  | IBLY IN      | IPEN               | E       | Page<br>ax # |                                | of     |
| Arcadis-Seres 2                  | TV                                  |                      |                    |                    | ·            | (           | (                       | )            |                    | (       | )            |                                |        |
| Address                          |                                     | City                 |                    |                    |              | 5           | State                   |              |                    | Zip Cod | e            |                                |        |
| Purchase Order #                 | Pro                                 | j. Name / I          | No. 30             | 2048               | 3392         | -           |                         |              | Katahdin           | Quote   | #            |                                |        |
| Bill (if different than above)   |                                     |                      | Ac                 | dress              |              |             |                         |              |                    |         |              |                                |        |
| Sampler (Print / Sign) Grace S   | BHECKLERA<br>R#: SPOT               | Desma                | md F               | Zeda               | d            |             |                         | Сор          | ies To:            |         |              |                                |        |
| LAB USE ONLY WORK ORDE           | R #: SPO7<br>ROJECT NUMBER _        | 83                   |                    | Eilt               | a Eilt       |             |                         | PRESER       | ONTAINE<br>VATIVES |         |              | <b>F</b> <sup>2</sup> <b>b</b> |        |
| REMARKS:                         |                                     |                      |                    | YON                |              |             |                         |              | Filt.              |         |              |                                |        |
|                                  |                                     |                      |                    |                    |              | ×           | ((1))                   |              |                    |         |              |                                |        |
|                                  | 🗇 UPS                               | CLIE                 | NT                 | 5                  | tals         | e fals      | Anios                   |              |                    |         |              |                                |        |
|                                  |                                     |                      | INTACT             | 504                | S. Ac        | NON'        | Alone A                 | Non          |                    |         |              |                                |        |
| Sample Description               | Date / Time<br>coll'd               | Matrix               | No. of<br>Cntrs.   | Diss, TO<br>H, 504 | Diss         | Total<br>II | Alkelinity, TDS, Anions |              |                    |         |              |                                |        |
| MW-21-25-FF-EVENT#6              | 02/14/27 10:40                      | GW                   | 1893               | V                  | V            |             |                         |              |                    |         |              |                                |        |
| MW-21-25-EVENT#6                 | 02/16/22/10:40                      | GW                   | "H                 |                    |              | V           | V                       |              |                    |         |              |                                |        |
| MW-21-20-FF-EVENT#6              | 02/16/22/12:25                      | GW                   | 3                  | V                  | V            |             |                         |              |                    |         |              |                                |        |
| MW-21-20-EVENT#6                 | 02/16/22/12:23                      | GW                   | 4                  |                    |              | V           | V                       | V            |                    |         |              |                                |        |
| MW-2+10 Event#6                  |                                     |                      | 4                  |                    |              |             |                         | $\checkmark$ |                    |         |              |                                |        |
| MW-21-10-FF-Event#6              | 2/16/2/10:57                        | GW                   | 3                  | $\checkmark$       | $\checkmark$ |             |                         |              |                    |         |              |                                |        |
| MW-21-15-Event#6                 |                                     |                      | 4                  |                    |              | ~           | ~                       | $\checkmark$ |                    |         |              |                                |        |
| MW-21-15-FF-Eventt               |                                     |                      | 3                  | $\checkmark$       | 5            |             |                         |              |                    |         |              |                                |        |
| MW-21-35-Event#6                 | . /                                 | GW                   | 3                  |                    |              | /           | $\checkmark$            |              |                    |         |              |                                |        |
| MW-21-35-FF-Evont=#6             | 2/14/27/14:35                       | GW                   | 3                  | $\checkmark$       | $\checkmark$ |             |                         |              |                    |         |              |                                |        |
| MW-21-30-FF-EVENT#6              | 02/16/22 14:19                      | GW                   | 3                  | V                  | V            |             |                         |              |                    |         |              |                                |        |
| MW-21-30-EVENT#6                 | 52/16/22/14:19                      | GW                   | 3                  |                    |              | V           |                         |              |                    |         |              |                                |        |
| AS-DUP-FF-EVENT#6                | 02/17/22/08:00                      | 6W                   | 3                  | $\checkmark$       | V            |             |                         |              |                    |         |              |                                |        |
| AS-DUP-EVENT#6                   | 0217422/08:00                       | 6W                   | 2                  |                    |              | V           | V                       |              |                    |         |              |                                |        |
| MW-21-40-FF-EVENT#6              |                                     | GW                   | 3                  | ~                  | V            |             |                         |              |                    |         |              |                                |        |
| MW-21-40-EVENT#60                | 07/17/22/11:10                      | 6W                   | 2                  |                    |              | V           | $\nu$                   |              |                    |         |              |                                |        |
| MENTS A Metal must               | be analyzed                         | for:1                | ron                | Man                | gane         | se, An      | -sen i                  | c, Ca        | laium,             | Mag     | mesiu        | m,                             |        |
| elinquished By: (Signature) Date | Time Receiv                         | ed By: (Sig          | gnature)           |                    |              |             | d Po-                   |              | / Time             | Bee     | erved By     | v: (Sian)                      | ature) |
| Juace Shike 2/17/2               | 2 13:35 Bich                        | ed By: (Sig          | 13:35              | 西                  | chair        | an G        | 2/11/20<br>ignature)    | ne is        |                    | C       | ceived By    |                                |        |
| <br>TH                           | E TERMS AND COI<br>SERVICES, EXCEP  | NDITIONS<br>T WHEN A | S ON TH<br>A SIGNE | E REVEI            | RSE SID      | E HEREG     | OF SHAL                 | L GOVE       | RN<br>Vices        | SP07    | ′83 P≠       | aae 9                          | of     |

| M K        | atahdin  |
|------------|----------|
| ANALYTICAL | SERVICES |

600 Technology Way Scarborough, ME 04074

#### **CHAIN of CUSTODY**

|      | ANALYTICAL SERVICES            | : (207) 874-2400<br>x: (207) 775-4029 |             |                  |                 |              |               | SE BEA                          |        | VN AND<br>N PEN                          |          | Page      | 2          | of       |
|------|--------------------------------|---------------------------------------|-------------|------------------|-----------------|--------------|---------------|---------------------------------|--------|------------------------------------------|----------|-----------|------------|----------|
| C    | lient Arcadis - Scres          | Vt                                    |             | Conta            | ct              |              | (             | Phone #                         | )      |                                          | F<br>(   | ax #      |            |          |
| A    | ddress                         | <u> </u>                              | City        | L                |                 |              |               | State                           | /      |                                          | Zip Coc  | le /      |            |          |
| Р    | urchase Order #                | Pro                                   | oj. Name /  | No. 30           | n4              | 392          |               |                                 |        | Katahd                                   | in Quote | #         |            |          |
| В    | II (if different than above)   |                                       |             |                  | dress           | 012          |               |                                 |        |                                          |          |           |            |          |
| S    | ampler (Print / Sign) Grace Sk | ocklar &T                             | Desma       | od R             | & day           | ed           |               |                                 | Cop    | oies To:                                 |          |           |            |          |
| I    | AB USE ONLY                    |                                       |             |                  |                 |              |               |                                 | DDESET | CONTAIN<br>RVATIVES                      |          |           |            |          |
| R    | KATAHDIN P<br>EMARKS:          | ROJECT NUMBER                         |             |                  |                 |              | Filt,<br>TYDN | Filt<br>TY                      | Filt.  |                                          |          |           | Filt.      | Filt.    |
| -    |                                |                                       |             |                  |                 |              | 不             | Anions<br>(CI,SD4,NG            |        |                                          |          |           |            |          |
|      |                                | 🗖 UPS                                 | CLIE        | NT               | 010             | Metals<br>3  | Mehals        | A SOU                           |        | e la |          |           |            |          |
|      | MP°C                           |                                       |             | INTACT           | 55. TO<br>H2504 | HN03         | Total HND3    | None                            | Bobs   |                                          |          |           |            |          |
| *    | Sample Description             | Date / Time<br>coll'd                 | Matrix      | No. of<br>Cntrs. | Ä               | A            | PH            | Alkalinity, TDS, Anims.<br>None | RA -   |                                          |          |           |            |          |
|      | 書SHM-10-06-Even#6              | 2/17/22/11:26                         | GN          | 2                |                 |              | ~             | /                               |        |                                          |          | I         |            |          |
|      | SHM-10-06-FF-Event#6           | 2/17/22/11:26                         | GW          | <b>Z</b> 3       | $\checkmark$    | ~            |               |                                 |        |                                          |          |           |            |          |
|      | SHH-10-06-FF-Eucht#6-MS        | 2/17/22/11:26                         | GN          | 3                | $\checkmark$    | ~            |               |                                 |        |                                          |          |           |            |          |
|      | SHALD BE TE Land the           | 2/17/22/                              |             |                  |                 |              |               |                                 |        |                                          | 8        |           |            |          |
|      | SHN-10-06-Event#6-MS           | 2/17/22/11:26                         | GW          | 1                |                 |              | $\checkmark$  |                                 |        |                                          |          |           |            |          |
|      | SHM-10-06-Event #6-MS/HSD      | 2/17/2/11:26                          | GW          | ١                |                 |              |               | $\checkmark$                    |        |                                          |          |           |            |          |
|      | SHEM-10-06-Event#6-MSD         | 2/17/22/ 11:26                        | GW          | 1                |                 |              | $\checkmark$  |                                 |        |                                          |          |           |            |          |
|      | SHM-10-06-FF-Exent#6-MSI       | 2/17/11:26                            | GW          | 3                | $\checkmark$    | $\checkmark$ |               |                                 |        |                                          |          |           |            |          |
|      | 3 MW-21-45-Event#6             | 2/17/22/12:55                         | GW          |                  |                 |              | $\checkmark$  | $\checkmark$                    |        |                                          |          |           |            |          |
|      | MW-21-45-FF-Even+#6            | 2/17/22/12:55                         | GW          | 3                | V               | ~            |               |                                 |        |                                          |          |           |            |          |
|      |                                | /                                     |             |                  |                 |              |               |                                 |        |                                          |          |           |            |          |
|      |                                | /                                     |             |                  |                 |              |               |                                 |        |                                          |          |           |            |          |
|      |                                | /                                     |             |                  |                 |              |               |                                 |        |                                          |          |           |            |          |
|      |                                | /                                     |             |                  |                 |              |               |                                 |        |                                          |          |           |            |          |
|      |                                | /                                     |             |                  |                 |              |               |                                 |        |                                          |          |           |            |          |
| СОМ  | MENTS - Total Metals -         | to be Sampled                         | : Iron. )   | Jangor           | rese, A         | rachic       | Calci         | im.M                            | 00/05  | in Sr                                    | - autor  | w B       | hosin      | <b>N</b> |
|      | 10140                          |                                       |             |                  |                 |              |               |                                 | -      |                                          |          |           |            |          |
| . 11 |                                | the R.I                               | 02/1        | 11.2000          |                 |              |               |                                 |        |                                          | e Red    | ceivedB   | . (Signat  | ture)    |
|      | linquished By: (Signature)     |                                       | ed By: (Sig |                  |                 |              | d By: (Si     |                                 |        | 18:28<br>e / Tim                         | e Rec    | ceived By | y: (Signat | ture)    |
|      |                                |                                       |             |                  | _               |              |               |                                 | _      |                                          |          |           |            | $\perp$  |

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN What was left profile. SERVICES, EXCEPT WHEN A SIGNED CRATER THAT AN ALL SERVICES SP0783 Page 10 of 389

|                   |                           | Sample Name:<br>Lab Sample ID:<br>Sample Date: |        | 16/22           |       |                    | MW-21-<br>SP0783-<br>02/16/2 |                 | ENT#6 |                    | MW-21-<br>SP0783-<br>02/16/2 |                 | /ENT#6 |                    | AS-DUP<br>SP0783<br>2/17/20 |                 | #6    |                    | MW-21-<br>SP0783-2<br>2/17/202 |        | 'ENT#6 |                    |
|-------------------|---------------------------|------------------------------------------------|--------|-----------------|-------|--------------------|------------------------------|-----------------|-------|--------------------|------------------------------|-----------------|--------|--------------------|-----------------------------|-----------------|-------|--------------------|--------------------------------|--------|--------|--------------------|
|                   | Analyte                   | Cas No.                                        | Result | Report<br>Limit | Units | Valid<br>Qualifier |                              | Report<br>Limit | Units | Valid<br>Qualifier | Bocult                       | Report<br>Limit | Units  | Valid<br>Qualifier | Bocult                      | Report<br>Limit | Units | Valid<br>Qualifier |                                | Report | Units  | Valid<br>Qualifier |
|                   | Analyte                   | Cas NO.                                        | Result | Linit           | Units | Quaimer            | Result                       | Linit           | Units | Quaimer            | Result                       | LIIIIIL         | Units  | Quaimer            | Result                      | Linin           | Units | Quaimer            | Result                         | Linnt  | Units  | Quaimer            |
| General Chemistry |                           |                                                |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
| <u>SW9060A</u>    |                           |                                                |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
|                   | Dissolved Organic Carbon  |                                                |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
|                   | (DOC)                     | NA                                             | ND     | 1               | mg/l  | UJ                 | ND                           | 1.8             | mg/l  | UJ                 | ND                           | 1.7             | mg/l   | UJ                 | ND                          | 1.3             | mg/l  | UJ                 | ND                             | 1.2    | mg/l   | UJ                 |
| <u>SM2540C</u>    |                           |                                                |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
|                   | Solids-Filterable Residue |                                                |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
|                   | (TDS)                     | 10-31-2                                        |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |
| <u>E353.2</u>     | Nitrate as N              | 14797-55-8                                     |        |                 |       |                    |                              |                 |       |                    |                              |                 |        |                    |                             |                 |       |                    |                                |        |        |                    |

|                   |                           | Sample Name:<br>Lab Sample ID:<br>Sample Date: |        | 18     | ENT#6 |           | MW-21-3D-EVENT#6<br>SP0783-11<br>02/16/22 |        |       |           | AS-DUP-<br>SP0783-<br>2/17/20 |        |       |           | MW-21<br>SP0783-<br>2/17/20 |        | T#6   |           | SHM-10<br>SP0783-<br>2/17/20 |        | T#6   |           |
|-------------------|---------------------------|------------------------------------------------|--------|--------|-------|-----------|-------------------------------------------|--------|-------|-----------|-------------------------------|--------|-------|-----------|-----------------------------|--------|-------|-----------|------------------------------|--------|-------|-----------|
|                   |                           |                                                |        | Report |       | Valid     |                                           | Report |       | Valid     |                               | Report |       | Valid     |                             | Report |       | Valid     |                              | Report |       | Valid     |
|                   | Analyte                   | Cas No.                                        | Result | Limit  | Units | Qualifier | Result                                    | Limit  | Units | Qualifier | Result                        | Limit  | Units | Qualifier | Result                      | Limit  | Units | Qualifier | Result                       | Limit  | Units | Qualifier |
| General Chemistry |                           |                                                |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
| <u>SW9060A</u>    |                           |                                                |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
|                   | Dissolved Organic Carbon  |                                                |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
|                   | (DOC)                     | NA                                             | ND     | 2.1    | mg/l  | UJ        |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
| <u>SM2540C</u>    |                           |                                                |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
|                   | Solids-Filterable Residue |                                                |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           |                              |        |       |           |
|                   | (TDS)                     | 10-31-2                                        |        |        |       |           | 96                                        | 10     | mg/l  | J         | 80                            | 10     | mg/l  | J         | 69                          | 10     | mg/l  | J         | 130                          | 10     | mg/l  | J         |
| <u>E353.2</u>     | Nitrate as N              | 14797-55-8                                     |        |        |       |           |                                           |        |       |           |                               |        |       |           |                             |        |       |           | ND                           | 0.05   | mg/l  | UJ        |

CADENA Project ID: E205550 Laboratory: Katahdin - Scarborough Laboratory Submittal: SP0783

|                                     |                                    | Sample Name:<br>Lab Sample ID:<br>Sample Date: | MW-21-<br>SP0783-<br>2/17/20 |       | T#6   | Valid     |
|-------------------------------------|------------------------------------|------------------------------------------------|------------------------------|-------|-------|-----------|
|                                     | Analyte                            | Cas No.                                        | Result                       | Limit | Units | Qualifier |
| General Chemistry<br><u>SW9060A</u> |                                    |                                                |                              |       |       |           |
|                                     | Dissolved Organic Carbon           |                                                |                              |       |       |           |
| <u>SM2540C</u>                      | (DOC)<br>Solids-Filterable Residue | NA                                             |                              |       |       |           |
|                                     | (TDS)                              | 10-31-2                                        | 140                          | 10    | mg/l  | J         |

<u>E353.2</u>

Nitrate as N 14797-55-8



### **DATA VERIFICATION REPORT – Stage 2B**

April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: EUROFINS-SAVANNAH Laboratory submittal: 201857-1 Sample date: 2021-07-21 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-29 Number of Samples: 6 Sample Matrices: SOLID Test Categories: METALS, TOC, BOD **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

HTQ – The following field sample test results were analyzed outside of the recommended holding time so should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect: BOD – samples -001, -002, -003, -004, -006 – UJ flags.

MBK - METHOD BLANKS had detections BELOW the Reporting Limit (RL) for the following parameters. The listed client sample results had concentrations LESS than 5X the method blank levels so client sample results reported below the RL are considered non-detect at the RL and qualified with U flags and results greater than the RL are non-detect at the sample concentration reported and qualified with U flags: TOC – QC batch 544631– U flag – sample -006.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results: METALS sample -003 – iron.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Inc, 1099 Highland Drive, Suite E, Ann Arbor, MI 48108 517-819-0356

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

#### Eurofins TestAmerica, Savannah

5102 LaRoche Avenue Savannah, GA 31404 Phone: 912-354-7858 Fax: 912-352-0165

#### Chain of Custody Record



eurofins Environment Testing

| Client Information (Sub Contract Lab)                                                                                                                                                                                                    | Sampler                                                                                             |                                                   |                                                      | Lab                                                  | ier, Jer                           | ry A                                  |                                               |                 |                     | Carrier Tra                 | cking No(              | 5)                            |                     | COC No<br>680-661130.1                        |                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|-----------------|---------------------|-----------------------------|------------------------|-------------------------------|---------------------|-----------------------------------------------|--------------------------------------------------|
| Client Contact                                                                                                                                                                                                                           | Phone:                                                                                              |                                                   |                                                      | E-M                                                  |                                    | 0.5                                   |                                               |                 |                     | State of Or                 |                        |                               |                     | Page                                          |                                                  |
| Company                                                                                                                                                                                                                                  |                                                                                                     |                                                   |                                                      | Jer                                                  |                                    |                                       | ofinset cor                                   |                 |                     | Massach                     | usetts                 |                               |                     | Page 1 of 1                                   |                                                  |
| TestAmerica Laboratories, Inc.                                                                                                                                                                                                           |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       | ense ELAF                                     |                 | DoD -               | ANAB                        |                        |                               |                     | Job #<br>680-201857-1                         |                                                  |
| 4955 Yarrow Street                                                                                                                                                                                                                       | Due Date Requeste<br>8/4/2021                                                                       | d                                                 |                                                      |                                                      |                                    |                                       |                                               | Analuai         | - D-                |                             |                        |                               | _                   | Preservation Co                               | des:                                             |
| City                                                                                                                                                                                                                                     | TAT Requested (da                                                                                   | ys):                                              |                                                      |                                                      | +-                                 |                                       |                                               | Analysi         | s Rei               | quested                     |                        | 1                             | -                   | A - HCL                                       | M - Hexane                                       |
| Arvada<br>State, Zip                                                                                                                                                                                                                     |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       |                                               |                 |                     |                             |                        |                               |                     | B = NaOH<br>C - Zn Acetate                    | N - None<br>O - AsNaO2                           |
| CO, 80002                                                                                                                                                                                                                                |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       |                                               |                 |                     |                             |                        |                               |                     | D - Nitric Acid<br>E - NaHSO4                 | P Na2O4S                                         |
| hone                                                                                                                                                                                                                                     | PO#                                                                                                 |                                                   |                                                      | _                                                    |                                    |                                       |                                               |                 |                     |                             |                        |                               |                     | F - MeOH                                      | Q - Na2SO3<br>R - Na2S2O3                        |
| 003-736-0100(Tel) 303-431-7171(Fax)                                                                                                                                                                                                      | W0 #                                                                                                |                                                   |                                                      |                                                      | - ÎN                               |                                       |                                               |                 |                     |                             |                        |                               |                     | G - Amchlor<br>H - Ascorbic Acid              | S - H2SO4<br>T - TSP Dodecahydra                 |
|                                                                                                                                                                                                                                          |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       |                                               |                 |                     |                             |                        |                               |                     | I - Ice<br>J - DI Water                       | U - Acetone<br>V - MCAA                          |
| roject Name<br>t. Devens/Shepley Hill Landfill                                                                                                                                                                                           | Project #                                                                                           |                                                   |                                                      |                                                      | Ves<br>or N                        |                                       |                                               |                 |                     |                             |                        |                               | ners                | K - EDTA                                      | W - pH 4-5                                       |
| ite                                                                                                                                                                                                                                      | 68023801<br>(\$\$0₩#                                                                                |                                                   |                                                      |                                                      | Yes (                              |                                       |                                               |                 |                     |                             |                        |                               | containe            | L EDA                                         | Z - other (specify)                              |
|                                                                                                                                                                                                                                          |                                                                                                     |                                                   |                                                      |                                                      | Sample (Yes<br>ISD (Yes or h       | 01                                    |                                               |                 |                     |                             |                        |                               | ofco                | Other:                                        |                                                  |
| Sample Identification - Client ID (Lab ID)                                                                                                                                                                                               |                                                                                                     | Sample                                            | Sample<br>Type<br>(C=comp,                           | Matrix<br>(W#water,<br>S=solid,<br>O=waste/oil,      | Id Filtered                        | 9060A/ Solids -                       |                                               |                 |                     |                             |                        |                               | Number              |                                               |                                                  |
| Sample Identification - Chem ID (Lab ID)                                                                                                                                                                                                 | Sample Date                                                                                         | Time                                              |                                                      | BT=Tissue, A=Ai                                      |                                    | 8                                     |                                               |                 | _                   |                             | _                      |                               | Total               | Special I                                     | nstructions/Note:                                |
| AS-21-1D (24-28) (680-201857-1)                                                                                                                                                                                                          | 7/04/04                                                                                             | 07:30                                             | Fleseiva                                             |                                                      | H                                  | +-+                                   |                                               |                 |                     |                             |                        |                               | X                   |                                               |                                                  |
|                                                                                                                                                                                                                                          | 7/21/21                                                                                             | Eastern<br>08:20                                  |                                                      | Solid                                                | $\downarrow$                       | X                                     |                                               |                 |                     |                             |                        |                               | 1                   |                                               |                                                  |
| AS-21-1D (34-38) (680-201857-2)                                                                                                                                                                                                          | 7/21/21                                                                                             | Eastern                                           |                                                      | Solid                                                |                                    | X                                     |                                               |                 |                     |                             |                        |                               | 1                   |                                               |                                                  |
| AS-21-1D (48-54) (680-201857-3)                                                                                                                                                                                                          | 7/21/21                                                                                             | 09:45<br>Eastern                                  |                                                      | Solid                                                | TT                                 | X                                     |                                               |                 |                     |                             |                        |                               | 1                   |                                               |                                                  |
| S-21-1D (48-54) (680-201857-3MS)                                                                                                                                                                                                         | 7/21/21                                                                                             | 09:45                                             | MS                                                   | Solid                                                | ++                                 | x                                     |                                               |                 | -                   |                             |                        | ++-                           | -                   |                                               |                                                  |
| AS-21-1D (48-54) (680-201857-3MSD)                                                                                                                                                                                                       | 7/21/21                                                                                             | Eastern<br>09:45                                  | MSD                                                  | Solid                                                | ++                                 | X                                     |                                               |                 |                     |                             |                        | +                             | -                   |                                               |                                                  |
| AS-21-1D (60-64) (680-201857-4)                                                                                                                                                                                                          | 7/21/21                                                                                             | Eastern<br>11:05                                  |                                                      | Solid                                                | ++                                 | x                                     |                                               |                 | _                   |                             |                        | ++                            | 1                   |                                               |                                                  |
| AS-21-1D (70-72) (680-201857-5)                                                                                                                                                                                                          | 7/21/21                                                                                             | Eastern<br>13:45                                  |                                                      | Solid                                                | ++                                 | +                                     |                                               |                 | -                   |                             |                        | +                             | 1                   |                                               |                                                  |
| OUP 072121 (680-201857-6)                                                                                                                                                                                                                |                                                                                                     | Eastern                                           |                                                      |                                                      | ++                                 | X                                     |                                               |                 |                     |                             |                        |                               | 1                   |                                               |                                                  |
|                                                                                                                                                                                                                                          | 7/21/21                                                                                             | Eastern                                           |                                                      | Solid                                                | ++                                 | X                                     | _                                             |                 | _                   |                             |                        |                               | 1                   |                                               |                                                  |
|                                                                                                                                                                                                                                          |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       |                                               |                 |                     |                             |                        |                               |                     |                                               |                                                  |
| Note: Since laboratory accreditations are subject to change, Eurofins Test<br>maintain accreditation in the State of Origin listed above for analysis/test:<br>restAmerica attention immediately. If all requested accreditations are cu | Matrix being analyzed, the sa<br>s/matrix being analyzed, the sa<br>ment to date, return the signed | p of method, a<br>imples must b<br>I Chain of Cus | nalyte & accre<br>e shipped back<br>tody attesting t | ditation compli<br>to the Eurofin<br>to said complic | ance upo<br>Is TestAn<br>ance to E | n out sub<br>lerica lab<br>iurofins T | contract labo<br>oratory or oti<br>estAmerica | ner instruction | his sam<br>ons will | ple shipment<br>be provided | is forward<br>Any char | ded under ch<br>nges to accre | ain-of-<br>editatio | -custody If the labo<br>on status should be t | ratory does not currently<br>prought to Eurofins |
| Possible Hazard Identification                                                                                                                                                                                                           |                                                                                                     |                                                   |                                                      |                                                      | Sa                                 | mple L                                | Disposal (                                    | A fee ma        | av be a             | assessed                    | if same                | les are re                    | taine               | ed longer than                                | 1 months                                         |
| Inconfirmed                                                                                                                                                                                                                              |                                                                                                     |                                                   |                                                      |                                                      |                                    |                                       | urn To Cli                                    | ent             |                     | Disposal E                  | v Lab                  | 1                             |                     | ive For                                       | Months                                           |
| Deliverable Requested: I, II, III, IV, Other (specify)                                                                                                                                                                                   | Primary Delivera                                                                                    | ble Rank:                                         | 2                                                    |                                                      | Sp                                 | ecial Ir                              | structions                                    | QC Requ         | ureme               | nts                         | ,                      |                               |                     |                                               | inion(hs                                         |
| Empty Kit Relinquished by                                                                                                                                                                                                                |                                                                                                     | Date                                              |                                                      |                                                      | Time                               |                                       |                                               |                 |                     | Meth                        | od of Ship             | ment                          |                     |                                               |                                                  |
| Relinquished by                                                                                                                                                                                                                          | Date/Time                                                                                           | V/IA                                              |                                                      | Company                                              |                                    | Receiv                                | ed by                                         | 11              |                     |                             |                        | _                             |                     |                                               | Company                                          |
| telinquished by                                                                                                                                                                                                                          | Date/Time                                                                                           | 1/100                                             | B                                                    |                                                      |                                    |                                       | ed by 74                                      | NL              |                     |                             |                        | 7/231                         | 21                  | 0920                                          | ETADE,                                           |
|                                                                                                                                                                                                                                          | Date/Time_                                                                                          |                                                   |                                                      | Company                                              |                                    | Receiv                                | ed by                                         |                 |                     |                             | Da                     | te/Time                       |                     |                                               | Company                                          |
| Relinquished by                                                                                                                                                                                                                          | Date/Time Company                                                                                   |                                                   |                                                      |                                                      |                                    | Receiv                                | ed by                                         |                 |                     |                             | Da                     | te/Time                       |                     |                                               | Company                                          |
| Custody Seals Intact: Custody Seal No.:                                                                                                                                                                                                  |                                                                                                     |                                                   |                                                      | L                                                    | _                                  | Conier                                | Temporat                                      | Vel °C and '    | Other D             |                             |                        |                               |                     |                                               |                                                  |
| A Yes A No                                                                                                                                                                                                                               |                                                                                                     |                                                   |                                                      |                                                      |                                    | Cooler                                | Temperature                                   |                 | Giner Ri            | emarks /                    | 1.1                    | TR                            | 10                  |                                               |                                                  |

4/14/2022 (Rev. 1)

- 11.1

CADENA Project ID: E205550 Laboratory: EUROFINS-SAVANNAH Laboratory Submittal: 201857-1

|                                     |                               | Sample Name:<br>Lab Sample ID:<br>Sample Date: |        | .857-6          |       |                    | AS-21-1<br>680-201<br>7/21/20 |                 |       |                    | AS-21-1<br>680-201<br>7/21/20 |                 | )     |                    | AS-21-1<br>680-201<br>7/21/20 |                 |       |                    | AS-21-10<br>680-201<br>7/21/20 | 857-4           |       |                    |
|-------------------------------------|-------------------------------|------------------------------------------------|--------|-----------------|-------|--------------------|-------------------------------|-----------------|-------|--------------------|-------------------------------|-----------------|-------|--------------------|-------------------------------|-----------------|-------|--------------------|--------------------------------|-----------------|-------|--------------------|
|                                     | Analyte                       | Cas No.                                        | Result | Report<br>Limit | Units | Valid<br>Qualifier |                               | Report<br>Limit | Units | Valid<br>Qualifier | Result                        | Report<br>Limit | Units | Valid<br>Qualifier | Result                        | Report<br>Limit | Units | Valid<br>Qualifier |                                | Report<br>Limit | Units | Valid<br>Qualifier |
| General Chemistry<br><u>SW9060A</u> |                               |                                                |        |                 |       |                    |                               |                 |       |                    |                               |                 |       |                    |                               |                 |       |                    |                                |                 |       |                    |
| SM5210B                             | Total Organic Carbon<br>(TOC) | 7440-44-0                                      | ND     | 4               | g/kg  | U                  |                               |                 |       |                    |                               |                 |       |                    |                               |                 |       |                    |                                |                 |       |                    |
|                                     | BOD                           | NA                                             | ND     | 960             | mg/kg | IJ                 | ND                            | 900             | mg/kg | IJ                 | ND                            | 980             | mg/kg | IJ                 | ND                            | 980             | mg/kg | IJ                 | ND                             | 970             | mg/kg | UJ                 |



### **DATA VERIFICATION REPORT – Stage 2B**

April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: EUROFINS-SAVANNAH (SVL Savannah) Laboratory submittal: 201857-2 (X1G0394) Sample date: 2021-07-21 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 6 Sample Matrices: SOLID Test Categories: ACID BASE COUNT (AGP, ANP SULFUR FORMS by Modified Sabek) **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

LAB DUPLICATE for sample -005 was considered acceptable based on low level criteria (1X RL absolute difference). NOTE: Samples were labeled for MS/MSD but percent recovery data was not reported with QC data in laboratory deliverables.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values. Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification. The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia, Project Scientist

# **Project Required Valid Qualifiers**

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| hah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Work Order: X1G0394<br>Test America - GA                                                                                   | 94                                                   |                                                     | n                                                                        | ∋cord                                                                |                                                                                 |                                                           |                                       | 🔆 eurofins Environment Testing America                                                                                                    |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------|
| Phone: 912-354-7858 Fax: 912-352-0165                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            |                                                      |                                                     | le                                                                       |                                                                      |                                                                                 | Carrier Tracking No(s):                                   |                                       | COC No:                                                                                                                                   | -    |
| Client Information (Sub Contract Lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                                                                                                                          |                                                      |                                                     | Lauler                                                                   | Lauier, Jerry A                                                      | -                                                                               |                                                           | -                                     | 680-661101 1                                                                                                                              |      |
| Client Contact:<br>Shipping/Receiving                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Phone:                                                                                                                     |                                                      |                                                     | Jerry.I                                                                  | anier@Eurofinse                                                      | t.com                                                                           | Massachusetts                                             |                                       | Page 1 of 1                                                                                                                               |      |
| Company:<br>SVL Analytical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                            |                                                      |                                                     | V I                                                                      | creditations Require<br>eptof Defense                                | Accreditations Required (See note):<br>Dept, of Defense ELAP - A2LA; DoD - ANAB | - ANAB                                                    |                                       | Job #:<br>680-201857-2                                                                                                                    |      |
| Address:<br>1 GOVERNMENT GULCH. POBOX 929.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Due Date Requested:<br>8/5/2021                                                                                            |                                                      |                                                     |                                                                          |                                                                      | Analysis Requested                                                              | equested                                                  |                                       | ъ –                                                                                                                                       |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | TAT Requested (days)                                                                                                       | 's):                                                 |                                                     |                                                                          | /(su                                                                 |                                                                                 |                                                           |                                       | B - NaOH N - None<br>C - Zn Acetate O - AsNaO2                                                                                            |      |
| Stale, Zip:<br>ID, 83837                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                            |                                                      |                                                     |                                                                          |                                                                      |                                                                                 |                                                           | 072                                   | D - Nitric Acid P - Na2O4S<br>E - NaHSO4 Q - Na2SO3<br>F - MeOH R - Na2S2O3                                                               |      |
| Phone:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ;# Od                                                                                                                      |                                                      |                                                     |                                                                          | tius ,c                                                              |                                                                                 |                                                           |                                       |                                                                                                                                           |      |
| Email:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WO#;                                                                                                                       |                                                      |                                                     |                                                                          | <b>(оИ</b><br>ИА,96                                                  |                                                                                 |                                                           | 8.1                                   | - Ice<br>J - DI Water<br>к _ БЛТА                                                                                                         |      |
| Project Name:<br>Ft, Devens/Shepley Hill Landfill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Project #;<br>68023801                                                                                                     |                                                      |                                                     |                                                                          | <b>10 28</b><br>0A :101                                              |                                                                                 |                                                           | enlstr                                | L - EDA                                                                                                                                   |      |
| Site:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SSOW#:                                                                                                                     |                                                      |                                                     |                                                                          | N DS                                                                 |                                                                                 |                                                           | of coi                                | Other:                                                                                                                                    |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                            | Sample                                               | Sample<br>Type<br>(C=comp,                          |                                                                          | erform MSM model<br>erform MSM gase<br>Bid Base Acco                 |                                                                                 |                                                           | redmuń Isto                           |                                                                                                                                           |      |
| Sample Identification - Client ID (Lab ID)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sample Date                                                                                                                | Lime                                                 | G=grab)                                             | Preservation Code:                                                       | a X                                                                  |                                                                                 |                                                           |                                       | opecial illoudulous/More.                                                                                                                 |      |
| AS-21-1D (24-28) (680-201857-1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7/21/21                                                                                                                    | 07:30<br>Eactorn                                     |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | -                                     | 2                                                                                                                                         |      |
| AS-21-1D (34-38) (680-201857-2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7/21/21                                                                                                                    | 08:20<br>Factorn                                     |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | 4                                     |                                                                                                                                           | 1    |
| AS-21-1D (48-54) (680-201857-3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7/21/21                                                                                                                    | 09:45<br>Eastern                                     |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | -                                     |                                                                                                                                           |      |
| AS-21-1D (48-54) (680-201857-3MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7/21/21                                                                                                                    | 09:45<br>Fastern                                     | WS                                                  | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | 1                                     |                                                                                                                                           |      |
| AS-21-1D (48-54) (680-201857-3MSD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 7/21/21                                                                                                                    | 09:45<br>Fastern                                     | MSD                                                 | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | 1                                     |                                                                                                                                           |      |
| AS-21-1D (60-64) (680-201857-4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7/21/21                                                                                                                    | 11:05<br>Eastern                                     |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | -                                     |                                                                                                                                           |      |
| AS-21-1D (70-72) (680-201857-5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7/21/21                                                                                                                    | 13:45<br>Eastern                                     |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | Ŧ                                     | Terthelanded                                                                                                                              | A.C. |
| DUP 072121 (680-201857-6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7/21/21                                                                                                                    | Eastern                                              |                                                     | Solid                                                                    | ×                                                                    |                                                                                 |                                                           | -                                     |                                                                                                                                           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                            |                                                      |                                                     |                                                                          |                                                                      |                                                                                 |                                                           |                                       |                                                                                                                                           | _    |
| Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testS/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica. | ins TestAmerica places the ownershi<br>sis/tests/matrix being analyzed, the sc<br>s are current to date, return the signed | p of method, al<br>amples must be<br>I Chain of Cust | nalyte & accre<br>s shipped back<br>ody attesting I | ditation complian<br>< to the Eurofins <sup>1</sup><br>to said complican | ie upon out subcontr<br>estAmerica laborato<br>ce to Eurofins TestAr | act laboratories This s<br>ry or other instructions<br>nerica                   | ample shipment is forwarde<br>will be provided, Any chang | ed under chain-c<br>ges to accreditat | of-custody. If the laboratory does not currently tion status should be brought to Eurofins                                                |      |
| Possible Hazard Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                            |                                                      |                                                     |                                                                          | Sample Disp                                                          | le Disposal ( A fee may t<br>Return To Client                                   | e assessed if sampl<br>□ Disposal By Lab                  | es are retair<br>                     | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  Return To Client Disposal By Lab Archive For Months |      |
| Deliverable Requested: I, II, III, IV, Other (specify)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Primary Deliverable Rank                                                                                                   | able Rank: 2                                         |                                                     |                                                                          | Special Instru                                                       | Special Instructions/QC Requirements:                                           | ments:                                                    |                                       |                                                                                                                                           |      |
| Empty Kit Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                            | Date:                                                |                                                     |                                                                          | Time:                                                                | 5                                                                               | Method of Shipment:                                       | nent:                                 |                                                                                                                                           |      |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DateTime                                                                                                                   | 51                                                   | QH                                                  | Company                                                                  | V Received                                                           | Carlin                                                                          |                                                           | Date/Time<br>07/23/                   | 2/ 11 10 Compary                                                                                                                          |      |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Date/Time:                                                                                                                 |                                                      |                                                     | Company                                                                  | Received by                                                          |                                                                                 | Date                                                      | Date/Tinne:                           | Company                                                                                                                                   |      |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Date/Time:                                                                                                                 |                                                      |                                                     | Company                                                                  | Received by:                                                         |                                                                                 | Date                                                      | Date/Time:                            | Company                                                                                                                                   |      |
| Custody Seals Intact: Custody Seal No.:<br>∆ Yes ∆ No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            |                                                      |                                                     |                                                                          | Cooler Tem                                                           | Cooler Temperature(s) °C and Other Remarks.                                     | sr Remarks:                                               | 12                                    | ٥                                                                                                                                         |      |
| ÷                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ¥2                                                                                                                         |                                                      |                                                     | 727                                                                      |                                                                      | )#                                                                              |                                                           | 7                                     | Ver. 06/08/2021                                                                                                                           | 1    |



April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: ALS-Rochester Laboratory submittal: R2200581 (associated with report SO8914) Sample date: 2021-12-28 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-27 Number of Samples: 6 Sample Matrices: Groundwater Test Categories: DOC Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

No qualifications or non-conformances to report.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values. Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification. The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia, Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

ALS Rochester



#### Sub-contract Laboratory Chain of Custody

Page: 1 of 1

| ANALYTICAL | SERVICES |
|------------|----------|
|            |          |

ź

| Client:                      | Contact:                          |             | Email:               |               |                | Phone #:                                        |                                        |               |  |  |
|------------------------------|-----------------------------------|-------------|----------------------|---------------|----------------|-------------------------------------------------|----------------------------------------|---------------|--|--|
| Katahdin Analytical Services | Ms. Heather Manz                  |             | hmanz@k              | atahdinlal    | o.com          | (207) 874-2400                                  |                                        |               |  |  |
| Address:                     | City:                             | City:       |                      |               |                | Project Name:                                   |                                        |               |  |  |
| 600 Technology Way           | Scarborough                       | Scarborough |                      |               | 74             | fort Devens                                     |                                        |               |  |  |
| KAS WO #:                    | Quote #:                          |             | Purchase             |               |                | TAT: 21                                         | week                                   |               |  |  |
| SO8914                       |                                   |             | SO SO                | 8914          | •              | Verbal TA                                       | L: V/A                                 |               |  |  |
| RPT Level:                   | Reporting Format: $\mathcal{DOD}$ |             | EDD: G<br>Spree      | ener          | el<br>eet      | Analysis:<br>Sw9060<br>DOC                      | Analysis:                              | Anatysts:     |  |  |
| Sample ID:                   | Collect Date/Time:                | Matrix:     | No. of<br>Containers | Pres.<br>HzSQ | MS/MSD<br>Dup. | Filtered?                                       | Filtered?<br>Y / N                     | Filtered?     |  |  |
| MW-21-3D-FF-EVENT#4          | 28-DEC-21 10:13                   | AQ          | 6                    |               | yes            | X                                               |                                        | /             |  |  |
| AS-DUP-FF-EVENT#4            | 28-DEC-21 11:00                   | AQ          | 2                    |               | No             |                                                 |                                        |               |  |  |
| MW-21-3S-FF-EVENT#4          | 28-DEC-21 12:15                   | AQ          | 2                    |               |                |                                                 |                                        |               |  |  |
| SMH-10-06-FF-EVENT#4         | 28-DEC-21 14:05                   | AQ          | 2                    | -             |                |                                                 | •••••••••••••••••••••••••••••••••••••• | $\overline{}$ |  |  |
| MW-21-4D-FF-EVENT#4          | 28-DEC-21 15:29                   | AQ          | 2                    |               |                |                                                 |                                        |               |  |  |
| MW-21-1S-FF-EVENT#4          | 28-DEC-21 11:35                   | AQ          | 2                    | V             | 4              | V                                               |                                        |               |  |  |
| Relinquished By:             | Date/Time:<br>01/20/22            | 430         | Received             | By:           | Jan            | - 1/                                            | 21/22                                  | 10:30         |  |  |
| Comments:<br>Hold time wr    | 11 expine a                       | u Zar       | 1.25                 |               |                |                                                 | <b>.</b>                               |               |  |  |
| Please neper                 | 7 this coc                        | ુ ડેલ       | parcul               | ely           |                |                                                 |                                        |               |  |  |
|                              |                                   |             |                      |               | Kat            | 22005<br>Indin Analytical S<br>1914 Fort Devene |                                        | 5             |  |  |



April 29, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: ALS-Rochester Laboratory submittal: R2200582 (associated with report SO8173) Sample date: 2021-11-22, 11-23 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-27 Number of Samples: 10 Sample Matrices: Groundwater Test Categories: DOC Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

HTQ - Sample result should be considered estimated and qualified with a J flag if detected and UJ flag if nondetect. Client sample was received/prepped/analyzed outside of the referenced holding time for the noted test: DOC - ALL FIELD SAMPLES – J flags.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values. Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification. The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia, Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

ALS Rocheste



#### Sub-contract Laboratory Chain of Custody

ICAL SERVICES A N

.

Page: 1 of 1

| Client:                      | Contact:                    | Email:      |           |       |                     | Phone #:       |              |      |              |                    |                  |  |  |  |  |
|------------------------------|-----------------------------|-------------|-----------|-------|---------------------|----------------|--------------|------|--------------|--------------------|------------------|--|--|--|--|
| Katahdin Analytical Services | Ms. Heather Manz            | hmanz@k     | lab.      | com   |                     | (207) 874-2400 |              |      |              |                    |                  |  |  |  |  |
| Address:                     | City:                       | City:       |           |       |                     | State: Zip:    |              |      |              |                    | Project Name:    |  |  |  |  |
| 600 Technology Way           | Scarborough                 | Scarborough |           |       |                     | 4              |              | F    | ort          | Deve               | ns               |  |  |  |  |
| KAS WO #:                    | Quote #:                    |             | Purchase  | Order | #:                  |                |              | TAT: | 21           | week               |                  |  |  |  |  |
| SO8173                       |                             |             | 5         | 081   | 2 ٢                 | )              |              | Verb | al TA        | רע :ד              |                  |  |  |  |  |
| RPT Level:                   | Reporting Format:           |             |           |       | rcr<br>ol S         | 1<br>shee      | *            | Swq  | ysis:<br>Q60 | Analysis:          | Analysis         |  |  |  |  |
| Sample ID:                   | Collect Date/Time:          | Matrix:     | No. of Pr |       | res. MS/N<br>SOU Du |                | ASD Filtered |      | red?         | Filtered?<br>Y / N | Filtered?<br>Y/N |  |  |  |  |
| SHM-10-06-FF-EVENT #2        | 22-NOV-21 10:45             | AQ          | 2         |       | <del>`</del>        | N              | Э            |      | x            |                    | /                |  |  |  |  |
| MW-21-4S-FF-EVENT#2          | 22-NOV-21 10:25             | AQ          | 6         |       |                     | yes            | >            |      |              | . /                |                  |  |  |  |  |
| MW-21-3D-FF-EVENT#2          | 22-NOV-21 12:57             | AQ          | 2         |       |                     | 2              | 0            |      |              |                    |                  |  |  |  |  |
| MW-21-4D-FF-EVENT#2          | 22-NOV-21 12:50             | AQ          | 2         |       |                     |                |              |      |              |                    |                  |  |  |  |  |
| MW-21-3S-FF-EVENT#2          | 22-NOV-21 14:35             | AQ          | 2         |       |                     | Ţ              |              |      |              |                    | - 7              |  |  |  |  |
| MW-21-2D-FF-EVENT#2          | 22-NOV-21 14:55             | AQ          | 2         |       |                     |                |              |      |              |                    |                  |  |  |  |  |
| MW-21-2S-FF-EVENT#2          | 23-NOV-21 10:51             | AQ          | 2         |       |                     |                |              |      |              | /                  | /                |  |  |  |  |
| MW-21-1S-FF-EVENT#2          | 23-NOV-21 11:52             | AQ          | 2         |       |                     |                |              |      |              | 1                  |                  |  |  |  |  |
| MW-21-1S-FF-EVENT#2-DUP      | 23-NOV-21 11:52             | AQ          | · Z       |       |                     |                |              |      |              |                    |                  |  |  |  |  |
| MW-21-1D-FF-EVENT#2          | 23-NOV-21 03:10             | AQ          | 2         | V     |                     | Y              |              |      | /            |                    |                  |  |  |  |  |
| Relinquished By:             | Date/Time:<br>- 01/20/22  4 | 130         | Received  | By:   | h                   | 1              | ~/           |      | _            | 1/21/20            | - 10:38          |  |  |  |  |
| •                            | che al rue                  |             |           |       |                     |                | 人 ·          | Hm   | L .          | <b>,</b> ,         |                  |  |  |  |  |
| riene r                      | report this                 | coc         | zepa      |       |                     | ¥'.            |              |      |              |                    |                  |  |  |  |  |





April 27, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S05463 Sample date: 2021-08-18 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-27 Number of Samples:4 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, TOC, COD, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

HTQ - Sample result should be considered estimated and qualified with a J flag if detected and UJ flag if non-detect. Client sample was received/prepped/analyzed outside of the referenced holding time for the noted test:

ALKALINITY - sample -002 - J flag.

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes: METALS – sample -002 – POTASSIUM, SODIUM – J flags. ALKALINITY – sample -002 – J flag. NITRATE – sample -002 – UJ flag. SULFATE – sample -002 – J flag.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required:
METALS – CCB – IOI01A – CALCIUM.
CHLORIDE – Method blank QC batch WG305703 and WG306238.
TOC – Method blank QC batch WG304831.
ALKALINITY – Method blank QC bath WG304829.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results:

METALS sample -002 – total arsenic, calcium, iron, manganese.

METALS sample -004 - dissolved arsenic, iron, manganese.

METALS sample -002 PDS - total calcium, iron.

METALS sample -004 PDS - dissolved iron.

PQL/LDR confirmation samples were outside of laboratory criteria biased low. Qualification of field sample results was not required based on these QC outliers alone: METALS QC batch IDI03A – Calcium, magnesium.

Calibration Verifications, Internal standard responses, Instrument criteria including tunes, field duplicates (when provided), Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The DoD Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

|    | ANALYTICAL SERVICES                                  | 00 Technology Way<br>carborough, ME 04074<br>el: (207) 874-2400<br>ax: (207) 775-4029 |             |                  |               | (                   | PLE                                     | ASE BE       |                       | STO                       |        | Paç        | ge         | of     |
|----|------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|------------------|---------------|---------------------|-----------------------------------------|--------------|-----------------------|---------------------------|--------|------------|------------|--------|
| C  | lient SERES Engine                                   | ering                                                                                 |             | Conta            | act<br>ther L | evesa               | ие                                      | Phone $(G)9$ | #)370                 | 0-03                      | 74     | Fax #<br>( | )          |        |
| A  | ddress 669 Marina                                    | Dr. 137                                                                               | City C      | Charle           | ston          |                     |                                         | State        | SC                    |                           | Zip Co | ode 29     | 1492       |        |
| Р  | urchase Order # Ff. Dever                            | ns Pro                                                                                | oj. Name /  | No.Ft            | . Der         | vens                |                                         |              |                       | Kataho                    |        |            |            |        |
|    | ill (if different than above)                        |                                                                                       |             |                  | ddress        |                     |                                         |              |                       |                           |        |            |            |        |
| S  | AB USE ONLY WORK ORI                                 | erGust S                                                                              | pener       | PG               | ut            |                     |                                         |              |                       | oies To:                  |        |            |            |        |
| L  | AB USE ONLY WORK ORI                                 | PROJECT NUMBER                                                                        | 63          | 0                | Filt.         | Filt.               | 10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- |              | PRESEI                | CONTAIN<br>RVATIVE:       | s      |            |            |        |
| R  | EMARKS:                                              |                                                                                       |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      |                                                                                       |             | INT              | Assou         | Metals<br>IDPE HNOS | als                                     | t, 50        | BOD, AIK, TDS         | Non                       |        |            |            |        |
|    | RBILL NO:                                            |                                                                                       |             |                  | SS Az         | Mete                | Metal                                   | HNAC         | HIX                   | HDPE                      |        |            |            |        |
| TE | EMP°C                                                | T                                                                                     |             | INTACT           |               | Total<br>250ml      | 1                                       | 101          | 300, AIK              | Anions<br>Som I HD        |        |            |            |        |
| *  | Sample Description                                   | Date / Time<br>coll'd                                                                 | Matrix      | No. of<br>Cntrs. | ton           | 75                  | 101<br>250                              | CO           | 28                    | A 55                      |        |            |            |        |
|    | MW-21-15-Baseline                                    |                                                                                       | GW          | 8                | 2             | t                   | l                                       | 1            | 2                     | 1                         |        |            |            |        |
|    | MW-21-11)-Baseline M                                 | 158.18/10.50                                                                          | GW          | 8                | 2             | 1                   | 1                                       | 1            | 2                     | 1                         |        |            |            |        |
|    | MW-Z1-ID-Baseline MSE                                | 8.18/10:50                                                                            | GW          | 8                | 2             | 1                   | ١                                       | }            | 2                     | 1                         |        |            |            |        |
|    | MW-21-1D-Boseline                                    | 8.18/10:50                                                                            | GW          | 8                | 2             | 1                   | 1                                       | l            | 2                     | 1                         |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      |                                                                                       |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            | +          |        |
|    |                                                      |                                                                                       |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      |                                                                                       |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    |                                                      | /                                                                                     |             |                  |               |                     |                                         |              |                       |                           |        |            |            |        |
|    | MENTS Container Volumes, o<br>these are okny to use. |                                                                                       |             |                  |               |                     |                                         |              |                       | oth Lab                   | te can | firm       |            |        |
| Re | linquished By: (Signature) Dat                       |                                                                                       | ed By: (Sig | gnature)         | Re            | elinquishe          | ed By: (S                               | ignature     |                       |                           |        | // //      | By: (Signa | ature) |
| Re |                                                      |                                                                                       | ed By: (Sig | gnature)         |               | enquishe            | ed By: (S                               | ignature     | ) <u>8/19</u><br>Date | <u>7 10-1</u><br>9 / Time |        | 1911       | By: (Signa | ature) |
|    | [                                                    | HE TERMS AND CO                                                                       |             | ON TH            |               | RSE SID             |                                         | OF SHA       | LL GOVI               | ERN                       | -      |            |            |        |

SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

## **Qualified Results Summary**

CADENA Project ID: E205550 Laboratory: Katahdin - Scarborough Laboratory Submittal: S05463

|            |                     |                     | Sample Name:<br>Lab Sample ID:<br>Sample Date: | MW-21-<br>SO5463-<br>8/18/20 |       | INE   | Valid     |
|------------|---------------------|---------------------|------------------------------------------------|------------------------------|-------|-------|-----------|
|            |                     | Analyte             | Cas No.                                        | Result                       | Limit | Units | Qualifier |
| Metals     | <u>OSW-6010</u>     | )C                  |                                                |                              |       |       |           |
|            |                     | Potassium, Total    | 7440-09-7                                      | 8740                         | 1000  | ug/l  | J         |
|            |                     | Sodium, Total       | 7440-23-5                                      | 17900                        | 1000  | ug/l  | J         |
| General Cl | nemistry<br>SM2320B |                     |                                                |                              |       |       |           |
|            | SW9056A             | Alkalinity as CaCO3 | 11-43-8                                        | 230                          | 5     | mg/l  | J         |
|            |                     | Sulfate             | 14808-79-8                                     | 22                           | 2     | mg/l  | J         |
|            | <u>E353.2</u>       | Nitrate as N        | 14797-55-8                                     | ND                           | 0.05  | mg/l  | UJ        |



April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S05512 Sample date: 2021-08-19 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples:2 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, TOC, COD, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

No qualifications were added to the submittal.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: CHLORIDE – Method blank QC batch WG305703. TOC – Method blank QC batch WG305311. ALKALINITY – Method blank QC bath WG305135.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                                        | 00 Technology Way<br>carborough, ME 04074 |             |                  |                          | C                                 | HAI         | N o                        | f CU         | STO            | DY        |             |                |
|--------------------------------------------------------|-------------------------------------------|-------------|------------------|--------------------------|-----------------------------------|-------------|----------------------------|--------------|----------------|-----------|-------------|----------------|
| ANALYTICAL SERVICES                                    | el: (207) 874-2400<br>Fax: (207) 775-4029 |             |                  |                          |                                   | PLEA<br>PR  | SE BE                      | AR DO        | WN AN<br>N PEN | D         | Page        | L of           |
| Client SERES Engineer                                  | ìing                                      |             | Conta<br>Heat    | ner La                   | resque                            |             | Phone #<br>( <i>G</i> /9   | ) 37         | 70.03          | 574       | Fax #       |                |
| Address 669 Marina                                     | Dr. 137                                   | City (      | Charle           | estor                    |                                   |             | State                      | SC           |                | Zip Co    | ode 294     | 92             |
| Purchase Order # F7. Devens                            | Pr                                        | oj. Name /  | No. F7           | 1. Der                   | <i>r</i> ens                      |             |                            |              |                | ndin Quot |             |                |
| Bill (if different than above)                         |                                           |             |                  | Idress                   |                                   |             |                            |              |                |           |             |                |
| Sampler (Print / Sign) Spencer<br>LAB USE ONLY WORK OR | Gust Spin                                 | in PZ       | Furt             |                          |                                   |             |                            | Cop          | pies To:       |           |             |                |
| LAB USE ONLY WORK OR                                   | DER #: 5055                               | 512         |                  |                          |                                   |             |                            | PRESEF       | RVATIV         |           |             |                |
| REMARKS:                                               | PROJECT NUMBER                            |             |                  | Filt.                    |                                   | Filt.       | Filt.                      |              | Filt.          |           |             | Filt.<br>Filt. |
|                                                        |                                           |             |                  | C.                       | s F                               | HAD         | Say                        | S            |                | llone     |             |                |
| SHIPPING INFO:<br>AIRBILL NO:                          | 🗇 UPS                                     |             |                  | , H <sub>Z</sub> S       | TOTAL Metals                      | Diss Metals | H J                        | NH NH        | 10 Def 14      |           |             |                |
| TEMP°C TEMP BLA                                        |                                           |             | INTACT           | Chess<br>Ghass           | CH-1<br>H                         | 1. H.       | DO<br>HD                   | H H          | Anions         |           |             |                |
| * Sample Description                                   | Date / Time<br>coll'd                     | Matrix      | No. of<br>Cntrs. | toc<br>toml, Gess, Hzsoy | Total Metals<br>250ml, HDPE, HNO3 | COm mos     | COD<br>250ml, HDPE, Ho Say | BODYAIK, TDS | Anion          |           |             |                |
| MW-21-2D-Baseline                                      | 8.19.21/10:40                             | GW          | 7                | 2                        | 1                                 |             | 1                          | 2            | 1              | •         |             |                |
| MW-21-2D-Baseline-FF                                   | 8.19.21/10:40                             | GW          | i                |                          |                                   | 1           |                            |              |                |           |             |                |
| Temp Blank                                             | - / -                                     |             | 1                |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        |                                           |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        |                                           |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        | /                                         |             |                  |                          |                                   |             |                            |              |                |           |             |                |
| OMMENTS                                                |                                           |             |                  |                          |                                   |             |                            |              |                |           |             |                |
|                                                        |                                           |             |                  |                          |                                   |             |                            |              |                |           | 725         |                |
| 6 Pri                                                  | e / Time Receiv                           | ed By: (Sig | gnature)         | Rei                      | linquishe<br>68/1                 | d By: (Si   | gnature)                   | Date         | ə / Tir        | ne Re     | ecoived By: | (Signature)    |
|                                                        |                                           |             |                  |                          | withan                            |             | 17:4                       | 2            |                | 12        | Ylow        | /              |
| Date (origination)                                     |                                           | ed By: (Sig |                  |                          | inquishe                          |             |                            |              | ə / Tir        | ne Re     | eceived By: | (Signature)    |

HE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.



April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S05557 Sample date: 2021-08-20 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 4 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, TOC, COD, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

No qualifications were added to the submittal.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required:
CHLORIDE – Method blank QC batch WG305703.
TOC – Method blank QC batch WG305111.
ALKALINITY – Method blank QC batch WG305135.
METALS – Method blank QC batch OH26ICW1 – Iron, Potassium. CCB IOH26A – calcium.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                                                |                                            | ) Technology Way<br>rborough, ME 04074 |             |                         |                          | C                                | CHAI                              | N of                | f CU                           | STO                         | DY   |          |                 |       |  |  |
|----------------------------------------------------------------|--------------------------------------------|----------------------------------------|-------------|-------------------------|--------------------------|----------------------------------|-----------------------------------|---------------------|--------------------------------|-----------------------------|------|----------|-----------------|-------|--|--|
| ANALYTICAL SERVICES Tel: (207) 874-2400<br>Fax: (207) 775-4029 |                                            |                                        |             |                         |                          |                                  | PLEA<br>PRI                       | SE BE/<br>NT LEC    | AR DO\<br>Sibly II             | NN AND<br>N PEN             | )    | Page of  |                 |       |  |  |
| С                                                              | lient SERES Engine<br>ddress 669 Marina Dr | erina                                  |             | Conta                   |                          | resque                           |                                   | Phone #             |                                | 3.0374                      |      | Fax #    | ·               |       |  |  |
| A                                                              | ddress 669 Marina Dr.                      | B7                                     | City 🧹      | Charle                  | iston                    | cojce                            |                                   |                     |                                | 2.037-                      |      | ode 294  | <u>/</u><br>492 |       |  |  |
| P                                                              | urchase Order # F. +. Devens               | Pro                                    | j. Name /   | No. F                   | F. Dave                  | ens                              |                                   |                     |                                | Katahd                      |      |          |                 |       |  |  |
|                                                                | ll (if different than above)               |                                        |             |                         | ddress                   |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| Sa                                                             | AB USE ONLY                                | Gust Spe                               | un PE       | Jut                     |                          |                                  |                                   |                     | Сор                            | oies To:                    |      |          |                 |       |  |  |
| L                                                              | AB USE ONLY WORK ORDI                      |                                        | 557         |                         | Fiit.                    | Filt.                            |                                   |                     | PRESER                         | CONTAIN<br>VATIVES<br>Filt, | 5    |          | Filt.           | Filt  |  |  |
| R                                                              | EMARKS:                                    |                                        |             |                         |                          |                                  |                                   |                     | 1 1 1                          |                             |      |          |                 |       |  |  |
|                                                                | HIPPING INFO: 🗍 FED EX                     | 🗇 UPS                                  |             | NT                      | TOC<br>40ml, Glass, H-SQ | John Methals<br>Doml, HDHE, HNOZ | Diss. Metals<br>250ml, HDPE, HMBz | )<br>2 E, H2 SQ4    | TIJS<br>PE, nove               | RE Done                     |      |          |                 |       |  |  |
|                                                                | MP°C ① TEMP BLAN                           |                                        |             | INTACT                  | 700<br>C 455             | HCHH,                            | Diss. A<br>MI, HD                 | NO E                | AK/<br>I, HD                   | mi, HDI                     |      |          |                 |       |  |  |
| *                                                              | Sample Description                         | Date / Time<br>coll'd                  | Matrix      | No. of<br>Cntrs.        | Yoml                     | Donl                             | D Som                             | COD<br>150ml. HDPE, | BODE, AIK, TI)<br>OCOMI, HDPE, | Mul                         |      |          |                 |       |  |  |
|                                                                | MW-21-25-Baseline                          | 8,20,21/1035                           | GW          | 7                       | 2                        | 1                                |                                   | 1                   | 2                              | 1                           |      |          |                 |       |  |  |
|                                                                | MV-21-25-Baselineff                        | 8-20-21/1035                           | GW          | 1                       |                          |                                  | L                                 |                     |                                |                             |      |          |                 |       |  |  |
|                                                                |                                            | 8.20.21/ 1220                          | GW          | 7                       | 2                        | 1                                |                                   | 1                   | 2                              | 1                           |      |          |                 |       |  |  |
| _                                                              | MW-21-3D-BoselineFF                        | 8.20.21 / 1220                         | GW          | 1                       |                          |                                  | L.                                |                     |                                |                             |      |          |                 |       |  |  |
|                                                                | Temp Blank                                 | - / -                                  |             | 1                       |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| _                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
|                                                                |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| _                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| _                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| _                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| _                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
|                                                                |                                            |                                        |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| 1                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
|                                                                |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| 1                                                              |                                            | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| M                                                              | MENTS                                      | /                                      |             |                         |                          |                                  |                                   |                     |                                |                             |      |          |                 |       |  |  |
| 01                                                             | amPGet 8.20                                | / Time Receive                         | ed By: (Sig | mature)<br>2021<br>13:5 |                          | Jucho                            | d By: (Si<br>26/262               | 16.2                | 0                              | ) / Time                    |      | Am       |                 |       |  |  |
|                                                                | inquished By: (Signature) Date             | / Time Receive                         | ed By: (Sig | nature)                 | Re                       | linquishe                        | d By: (Si                         | gnature)            | Date                           | / Time                      | - Ré | ceived B | y: (Signa       | ture) |  |  |



April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S05689 Sample date: 2021-08-25, 08-26 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 10 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, NITRATE, SULFATE, CHLORIDE, TOC, COD, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

MSD - MS and/or MSD recovery outliers or the MS/MSD RPD were outliers with the recovery biased LOW for these analytes. Results for the client sample spiked only should be considered estimated and qualified with a J flag if detected and UJ flags if non-detect for these analytes: CHLORIDE – sample -001 – J flag.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: METALS – CCB – IOI01A – CALCIUM.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| $\wedge$        |                                      | Technology Way<br>rborough, ME 04074 |              |                  |                    | С                 | HAI                               | N of                                      | CUS                                 | STOI                       | ΟY      |          |           |        |
|-----------------|--------------------------------------|--------------------------------------|--------------|------------------|--------------------|-------------------|-----------------------------------|-------------------------------------------|-------------------------------------|----------------------------|---------|----------|-----------|--------|
|                 | TICAL SERVICES                       | (207) 874-2400<br>:: (207) 775-4029  |              |                  |                    |                   |                                   | SE BEA                                    |                                     | VN AND<br>I PEN            |         | Page     | ı         | of     |
| Client S        | ERES Engineer<br>GG9 Marim D         | Nina                                 |              | Conta            | daras              | io                |                                   | Phone #                                   |                                     | 0374                       | Fa      | ax #     |           |        |
| Address (       | 69 Marin D                           | n. B7                                | City C       | hark             | ston               | 702               |                                   | State 2                                   |                                     |                            | Zip Cod | e 290    | 192       |        |
| Purchase (      | Order # Ft Devens                    | Pro                                  | oj. Name /   | No. A            | Dare               | ens               |                                   |                                           |                                     | Katahdi                    | n Quote | #        |           |        |
| Bill (if differ | rent than above)                     |                                      |              |                  | ddress             |                   |                                   |                                           |                                     |                            | 1       |          |           |        |
| Sampler (F      | rint / Sign) Spencer                 | Gust Sp                              | enent        | PGu              | st                 |                   |                                   |                                           | Сор                                 | ies To:                    |         |          |           |        |
| LAB USE         | E ONLY WORK ORDE                     | ER #:<br>ROJECT NUMBER               | SNGLA        | 89               | Contraction of the |                   |                                   |                                           | PRESER                              | CONTAIN<br>VATIVES         |         |          |           |        |
| REMARKS         | KATAHDIN P                           | ROJECT NUMBER                        | 0000         | 01               |                    |                   |                                   |                                           |                                     | Filt.                      | Filt.   |          | Filt.     |        |
|                 |                                      |                                      |              |                  | H-So.              | S S S             | Saf                               | S                                         | TDS<br>C, nove                      | len                        |         |          |           |        |
|                 | INFO:  FED EX                        | 🗇 UPS                                | CLIE         | NT               | 1 1                | Metals<br>IPE, HA | Fall                              | 0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | C, TI                               | NE, J                      |         |          |           |        |
|                 | TEMP BLAN                            |                                      |              | INTACT           | 100<br>5 100       | 1,10              | 1 H                               | JEC.                                      | BODS, AIK, TDS<br>COCMI, HDPE, neve | Anions<br>MI, HUPE         |         |          |           |        |
| *               | Sample Description                   | Date / Time<br>coll'd                | Matrix       | No. of<br>Cntrs. | 40ml Churs         | Total<br>250ml, 1 | Diss. Metals<br>250ml, HUPE, HARS | COD<br>250ml, HDPE, H2SQ                  | BODS                                | Anians<br>250ml, HOPE, New |         |          |           |        |
| MW              | 1-21-35-Baseline                     | 8.25.21/10:05                        | GW           | 7                | 2                  | 1                 |                                   | i                                         | 2                                   | 1                          |         |          |           | +      |
| MW              | 21-35-Baselin-FP                     | 8.25.21/ 10:05                       | GW           | ١                |                    |                   | 1                                 |                                           |                                     |                            |         |          |           |        |
| Mal-            | 21-4 D-Baseline                      | 8.25.21/11:35                        | GW           | 7                | 2                  | 1                 |                                   | 1                                         | 2                                   | 2                          |         |          |           |        |
| MW-             | 21-4D-Boneline-FF                    | 8.25.21/11:35                        | GW           | ١                |                    |                   | ١                                 |                                           |                                     |                            |         |          |           |        |
| AS-D            | 1 1 1                                | 8.25.21/11:40                        | GW           | 7                | 2                  | l                 |                                   | I                                         | 2                                   | 1                          |         |          |           |        |
| AS-C            | 1412-Baseline-FF                     |                                      | GW           | ١                |                    |                   | i                                 |                                           |                                     |                            |         |          |           |        |
| MW-             |                                      | 8.25.21/14-15                        | -            | 7                | 2                  | )                 |                                   | 1                                         | 2                                   | 1                          |         |          |           |        |
| MW-2            | 1-45-Badine-FP                       | 825.2/14:15                          | GW           | (                |                    |                   | 1                                 |                                           |                                     |                            |         |          |           |        |
| SHM             | -10-06-Baveline<br>10-06-Baveline-FF | 8.26.21/10:40                        | GW           | 7                | 2                  | (                 | X                                 | 11                                        | 2                                   | 1                          |         |          |           |        |
| SHM-            | 10-06-Baseline-FF                    | 8.26.21/10:40                        | GW           | 1                |                    |                   | l                                 |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      | /                                    |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
|                 |                                      |                                      |              |                  |                    |                   |                                   |                                           |                                     |                            |         |          |           |        |
| C 1             | d By: (Signature) Date               | / Time Receiv                        | ed By: (Sig  | gnature)         | Re                 | elinquishe        | d By: (Si                         | gnature)                                  | Date                                | e / Time                   | Rec     | eived    | r. (Sigha | Hure)  |
| Balinguisha     | d By: (Signature)                    | 11:45 1100C                          | hanan        | 11:45            | 162                | uchar             | ioun 1                            | 4:27                                      |                                     |                            | 1       | An       | $\leq$    | >      |
| neiiiiquisne    | d By: (Signature) Date               | / Time Receiv                        | red By: (Sig | gnature)         | Re                 | elinquishe        | a By: (Si                         | gnature)                                  | Date                                | e / Time                   | e Rec   | eived By | r: (Signa | iture) |
|                 |                                      | E TERMS AND CO                       |              |                  |                    |                   |                                   |                                           | -                                   |                            | -       |          |           |        |

SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

## **Qualified Results Summary**

CADENA Project ID: E205550 Laboratory: Katahdin - Scarborough Laboratory Submittal: S05689

|                                   |          | Sample Name:   | MW-21-  | 3S-BASE | LINE  |           |
|-----------------------------------|----------|----------------|---------|---------|-------|-----------|
|                                   |          | Lab Sample ID: | SO5689  | -1DLG   |       |           |
|                                   |          | Sample Date:   | 08/25/2 | 1       |       |           |
|                                   |          |                |         | Report  |       | Valid     |
|                                   | Analyte  | Cas No.        | Result  | Limit   | Units | Qualifier |
| General Chemistry<br><u>SW905</u> |          |                |         |         |       |           |
|                                   | Chloride | 16887-00-6     | 29      | 4       | mg/l  | J         |



April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S07737 Sample date: 2021-11-04, 11-05 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 20 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, BOD, TSS **Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.** 

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

No qualifications were added to the submittal.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: ALKALINITY – Method blank QC batch WG309974, WG310032. METALS – Method blanks QC batch OK111CW1 and OK111CW2 – Iron.

MS/MSD spike concentrations were less than 4X the original sample concentration for the following analytes in the client sample noted so MS/MSD percent recoveries are not considered to be statistically reliable and were not used to qualify client sample results:

METALS sample -005 - total iron.

METALS sample -005 PDS was outside of method criteria for iron due to 4X criteria.

METALS sample -005 PDS was outside of method criteria for manganese, but MS/MSD recoveries for this element were acceptable so qualification was not required.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|          |                               | ) Technology Way<br>arborough, ME 04074 |                     |                  |                | C                  | HAI                | N of              | CU                        | STOI                           | ŊΥ      |             |               |         |
|----------|-------------------------------|-----------------------------------------|---------------------|------------------|----------------|--------------------|--------------------|-------------------|---------------------------|--------------------------------|---------|-------------|---------------|---------|
|          | ANALYTICAL SERVICES           | : (207) 874-2400<br>x: (207) 775-4029   |                     |                  |                |                    | PLEA<br>PRI        | SE BE/<br>NT LEG  | AR DOV                    | WN AND<br>N PEN                |         | Page        | .             | of 2    |
| 0        | lient Arcadis/Seres           |                                         |                     | Cont             | act            |                    |                    | Phone #           |                           |                                |         | =ax #       |               |         |
|          | ddress                        | > 00                                    | City                | Heat             | her            | evesyi             |                    |                   | 1340                      | -037                           |         |             |               |         |
| ⊢        | urchase Order #               | Dec                                     |                     |                  |                | 120                |                    | State             | 10                        |                                | Zip Co  |             |               |         |
| -        | ill (if different than above) |                                         | oj. Name / I        |                  |                | 100                | 0485               | 92,0              | '{}-                      | Katahdi                        | n Quote | ;#          |               |         |
| -        |                               | 21 15/1                                 | 11.                 |                  | ddress         | 00 0               | 1                  |                   |                           |                                |         |             |               |         |
| <u> </u> | ampler (Print / Sign)         | ER #: 50773                             | di                  | Tua              | a x            | hech               | un p               | ANALYSI           |                           | dies To:<br>CONTAIN            | ERTY    | Æ           |               |         |
|          |                               | PROJECT NUMBER                          | /                   |                  | Filt.          | Fil(               |                    |                   | PRESEI                    | RVATIVES<br>Filt.<br>N 🗆 Y 🗆 N |         |             | Filt.         | Filt.   |
| R        | EMARKS:                       |                                         |                     |                  | 2              |                    |                    |                   |                           |                                |         |             |               |         |
| s        |                               |                                         |                     | NT               | Metala<br>HAD- | S H                | STE                | NP                | Ø                         | - I                            |         |             |               |         |
| AI       | RBILL NO:                     |                                         |                     |                  |                | Neto               | 320                | _                 | 320                       |                                |         |             |               |         |
| TE       | EMP°C                         |                                         | □ NOT               |                  | 12 4           | 601                | M2                 | 103               | 800                       |                                |         |             |               |         |
| *        | Sample Description            | Date / Time<br>coll'd                   | Matrix              | No. of<br>Cntrs. | Dij            | 1                  | A N                | 1                 | $\left[ \right]^{\gamma}$ |                                |         |             |               |         |
|          | MW-21-10-EVENT#               | 11/04/21/10:55                          | GW                  | 3                |                | $\checkmark$       | V                  | V                 | V                         |                                |         |             |               |         |
|          | MW-21-10-FF-EVENT#            | 11/04/21/10:55                          | GW                  | 1                | V              |                    |                    |                   |                           |                                |         |             |               |         |
|          | MW-21-1S-EVENT#1              | 11/04/21/11:00                          | 6W                  | 4                |                | V                  | V                  | V                 | $\checkmark$              |                                |         |             |               |         |
|          | MW-21-15-FF-EVENT#1           | 11/04/11/ 11:00                         | 6W                  | 1                | $\checkmark$   |                    |                    |                   |                           |                                |         |             |               |         |
|          | MW-21-45-EVENT#1              | 11/04/21/14:05                          | GW                  | 3                |                | $\vee$             | V                  | $\checkmark$      |                           |                                |         |             |               |         |
|          | MW-21-45-FF-EVENT#)           | 11/04/21/14:05                          | GW                  | 1                | V              |                    |                    |                   |                           |                                |         |             |               |         |
|          | MW-21-35-EVENT#1              | 11/04/21/14:20                          | GW                  | 3                |                | V                  | ν                  | V                 |                           |                                |         |             |               |         |
|          | MW-ZI-35-FF-EVENT#1           | 11/04/21/14:20                          | GW                  | )                | $\vee$         |                    |                    |                   |                           |                                |         |             |               |         |
|          |                               | 11/04/21/16:05                          | GW                  | 3                |                | V                  | ν                  | V                 |                           |                                |         |             |               |         |
|          | MW-21-40 FF-EVEN7#/           | 11/04/21/16:05                          | GW                  | )                | V              |                    |                    |                   |                           |                                |         |             |               |         |
|          | MW-21-30-EVENT#               | 11/04/21/17:00                          | GW                  | 3                |                | V                  | V                  | V                 |                           |                                |         |             |               |         |
|          | MW-21-3D-FF-EVENT#            | 11/04/21/17:00                          | GW                  | 1                | $\checkmark$   |                    |                    |                   |                           |                                |         |             |               |         |
|          | AS-DUP-EVENT#1                | 11/05/21/09:00                          | 6W                  | 3                |                | V                  | V                  | $\checkmark$      |                           |                                |         |             |               |         |
|          | AS-DUP-FF-EVENT#1             | 11/05/21/08:00                          | GW                  | 1                | V              |                    |                    |                   |                           |                                |         |             |               |         |
|          | SHM-10-06-EVENT#              | 11/05/21/10:48                          | GW                  | 3                |                | V                  | V                  | V                 |                           |                                |         |             |               |         |
|          | SHM-10-06-FF-EVENT#1          | 11/05/21/10:48                          | GW                  | 1                | V              |                    |                    |                   |                           |                                |         |             |               |         |
| COM      | IMENTS                        |                                         |                     |                  |                |                    |                    |                   |                           |                                |         |             |               |         |
| Be       | elinquished By: (Signature)   | e / Time Receiv                         | ed By: (Sig         | naturo)          | R              | elinguishe         | A Av: (Si          | anoturo)          | Dat                       | e / Time                       | Pa      | eceiy/edt B | Dus (Dies     |         |
| Som      | und Bydau (Arcadis) 11/05/    |                                         |                     |                  | $\langle$      |                    |                    |                   |                           | 21/16:50                       |         |             | y. (Sigi<br>- | lature) |
| Re       | elinquished By: (Signature)   | e / Time Receiv                         | ed By: (Sig         | gnature)         | R              | elinquishe         | d By: (Si          | gnature)          |                           | e / Time                       |         | ceived B    | y: (Sigr      | ature)  |
|          |                               |                                         |                     |                  |                |                    |                    |                   |                           |                                |         |             |               |         |
|          | Th                            | IE TERMS AND COI<br>SERVICES, EXCEPT    | NDITIONS<br>TWHEN A | ON TH<br>SIGNE   | E REVE         | HSE SIDI<br>TRACTU | e herec<br>Al agre | )F SHAL<br>EEMENT | L GOV                     | ERN<br>S.                      |         |             | 0             | ممممم   |

|            |                               | ) Technology Way<br>rborough, ME 04074 |             |                  |               | C            | HAI           | N of    | CUS      | STOI               | DY       |           |       |       |
|------------|-------------------------------|----------------------------------------|-------------|------------------|---------------|--------------|---------------|---------|----------|--------------------|----------|-----------|-------|-------|
|            | ANALVTICAL SERVICES           | : (207) 874-2400<br>:: (207) 775-4029  |             |                  |               |              | PLEA:<br>PRII | SE BEA  | AR DOV   | /N AND<br>I PEN    |          | Page      | 2,    | J Z   |
| C          | lient Arcadis / Seres         | JV                                     |             | Conta            |               |              |               | Phone # | 1300     | -021               | F        | ax #      |       |       |
| A          | ddress                        |                                        | City        | пати             | er Lev        | resque       |               | State   | )0 +0    | -0371              | Zip Cod  | )<br>de   |       |       |
| Р          | urchase Order #               | Pro                                    | j. Name / I | No. De           | NP IS         | 17004        | 18392         | N7F     | -        | Katahdi            | in Quote | _         |       | _     |
| В          | II (if different than above)  |                                        |             |                  | ddress        | 1 0001       | 0010          |         |          |                    |          |           |       |       |
| S          | ampler (Print / Sign)         | Beland Medand                          | E l         | I.A.M.           | R             | l. All       |               |         | Сор      | ies To:            |          |           |       |       |
| L          | AB USE ONLY WORK ORD          | ER #: 50773                            | 7           | gwa              |               | MAM          | A             |         | IS AND C | CONTAIN<br>VATIVES |          | Έ         |       |       |
| B          | EMARKS:                       | ROJECT NUMBER _                        |             |                  |               | Filt/        |               | Filt    | Film     |                    | Filt.    | Filt.     | Filt. | Filt. |
| -          |                               |                                        |             |                  | 103 P         | è à          | dN            | N.P.    | dh       |                    |          |           |       |       |
|            |                               | UPS                                    | CLIE        | NT               | Metolo<br>HNO | olo<br>H     | 2190          |         | 203      |                    |          |           |       |       |
|            | RBILL NO: 🗇 TEMP BLAN         |                                        |             | INTACT           | red.          | Me           | 1/1/1<br>2320 | 50      | 05       |                    |          |           |       |       |
| *          | Sample Description            | Date / Time<br>coll'd                  | Matrix      | No. of<br>Cntrs. | 19.2          | Totol<br>601 | AIK           | 1/      | 80<br>SM |                    |          |           |       |       |
|            | MW-21-25-EVENT#1              | 105121/ 11:50                          | 6W          | 3                |               | V            | V             | V       | V        |                    |          |           |       |       |
|            | NW-21-75-FF-EVENT#1           | 11/05/21/11:50                         | GW          | 1                | V             |              |               |         |          |                    |          |           |       |       |
|            | MW-21-20-EVENT#1              | 11/05/21/12:41                         | 6W          | 3                |               | V            | ν             | V       | V        |                    |          |           |       |       |
| _          | MW-21-20-FF-EVENT#1           | 11/05/21/12:4/                         | GW          | 1                | V             |              |               |         |          |                    |          |           |       |       |
|            |                               | · /                                    |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
|            |                               | /                                      |             |                  |               |              |               |         |          |                    |          |           |       |       |
| COM        | MENTS                         |                                        |             |                  |               |              |               |         |          |                    |          |           |       |       |
| <u>الم</u> | emond Budand (Arcadis) 11/05, | 121 13:50 12                           | ed By: Si   |                  | +(            | Λ            | ad By: (Si    |         | il-5     |                    |          | ceived Br |       |       |



April 28, 2022

Heather Levesque SERES Engineering & Services LLC 669 Marina Dr. B7 Charleston, SC 29492

CADENA project ID: E205550 Project: SERES ENGINEERING & SERVICES, LLC – **FORT DEVENS SHL** – AIR SPARGE PILOT TEST Project number: 30003686 Event Specific Scope of Work: Sample COC, QAPP July 2021, Validation criteria WS#28 and Table 36-1 Laboratory: Katahdin Analytical Services – Scarborough ME Laboratory submittal: S08631 Sample date: 2021-12-13, 12-14 Report received by CADENA: 2022-04-14 Initial Data Verification completed by CADENA: 2022-04-28 Number of Samples: 20 Sample Matrices: Groundwater Test Categories: METALS, ALKALINITY, BOD, TSS Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

The following QC exceptions or sample integrity issues required the addition of qualifier flags:

No qualifications were added to the submittal.

The following QC exceptions or sample integrity issues DID NOT result in qualification of field sample results:

BLANKS – method/calibration/field blanks had detections BELOW the Reporting Limit (RL) as noted below. Client sample results were either non-detect for these analytes or had concentrations greater than 5X the method blank levels so qualification of client sample results was not required: ALKALINITY – Method blank QC batch WG312105. METALS – Method blank QC batches OL17ICW1 – Iron, OL17ICW2 – arsenic.

Calibration Verifications, Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the project specific validation criteria specified in the project QAPP noted earlier and the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Data was not received in an electronic format that could be loaded into the CADENA CLMS database so is not available electronically only as reported in this deliverable. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. Project specific valid qualifiers are defined in the table below.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

| Valid<br>Qualifiers | Description                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UJ                  | The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.                                                                                                          |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| J                   | Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies. |
| X                   | Indicates the value is considered to be unusable.                                                                                                                                                                                                                                                                                                                                                                                      |
| U                   | Indicates that the analyte / compound was analyzed for, but not detected OR was considered to be<br>non-detect due to sample concentration being less than 5X (10X for common lab contaminants)<br>the concentration detected in associated method blanks or field blanks.                                                                                                                                                             |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                        |

#### **CHAIN of CUSTODY**

|                                   | Technology Way<br>rborough, ME 04074 |            |                  |               | С                           | HAI          | N of                  | CUS               | <b>STO</b>    | DY      |         |           |           |             |
|-----------------------------------|--------------------------------------|------------|------------------|---------------|-----------------------------|--------------|-----------------------|-------------------|---------------|---------|---------|-----------|-----------|-------------|
| ANALYTICAL SERVICES               | (207) 874-2400<br>: (207) 775-4029   |            |                  |               |                             | PLEA<br>PRI  | SE BEA<br>NT LEG      | R DOW             | /N AND<br>Pen | )       | P       | age       | of        |             |
| Client<br>Arcadis & Sercs         |                                      |            | Conta            | ct            |                             |              | Phone #               | )                 |               |         | Fax #   | )         |           |             |
| Address                           |                                      | City       |                  |               |                             |              | State                 | /                 |               | Zip C   | ode     | /         |           |             |
| Purchase Order #                  | Pro                                  | j. Name /  | No.              |               |                             |              |                       |                   | Kataho        | lin Quo | te #    | 1.1915    |           |             |
| Bill (if different than above)    |                                      |            | Ac               | Idress        |                             |              |                       |                   |               |         |         |           |           |             |
| Sampler (Print / Sign) Grace St   | marklan ED                           | 0000       | nd Ro            | chod          | n Have                      | No. V        | hili                  | Л Сор             | ies To:       |         |         |           |           |             |
| LAB USE ONLY WORK ORD             | R#: 50 863                           | 1          | M BL             | Gara          | Yun                         | VCA, N       | NALYSI                | S AND C<br>PRESER |               |         | (PE     | 1.15      |           |             |
| KATAHDIN P                        | ROJECT NUMBER _                      |            |                  |               | Filt.                       |              | Filt,<br>TYZIN        | Filt.             | Filt.         |         | JN 🗆 Y  | ilt. F    | ilt.      | Filt<br>Y [ |
|                                   |                                      |            |                  | HNA           | Actols<br>HDPT              | AL           | E<br>E<br>E<br>E<br>E |                   |               |         |         |           |           |             |
| SHIPPING INFO: TED EX             | 🗖 UPS                                | CLIE       |                  | Metals (HNAA) | ADS)                        | HDPE         | Ŧ                     |                   |               |         |         |           |           |             |
|                                   |                                      |            | INTACT           | Me            | Dissolved N<br>250ml (HNOS) | Na Linity    | Two (                 |                   |               |         |         |           |           |             |
| * Sample Description              | Date / Time<br>coll'd                | Matrix     | No. of<br>Cntrs. | 250<br>Total  | Dist                        | Alkal        | 1000<br>1000          |                   |               |         |         |           |           |             |
| SHM-10-06-Event#3                 | 12/13/21/10:35                       | Gw         | 2                | V             |                             | ~            |                       |                   |               |         |         |           |           | _           |
| SHM-10-06-Event#3-A               | 12/13/21/10:35                       | GW         | 1                |               | $\checkmark$                |              |                       |                   |               |         |         |           |           |             |
|                                   | 12/13/21/13:21                       | GW         | 2                | $\checkmark$  |                             | $\checkmark$ |                       |                   |               |         |         |           |           |             |
| MW-21-45-Event#3-#                | 12/13/21/13:21                       | GW         | í                |               | $\checkmark$                |              |                       |                   |               |         |         |           |           |             |
| MW-21-4D-Ecot#3                   |                                      |            | 2                | $\checkmark$  |                             | V            |                       |                   |               |         |         |           |           |             |
| MW-21-4D-Event#3-A                | 12/13/21/12:23                       | GW         | 1                |               | $\checkmark$                |              |                       |                   |               |         |         |           |           |             |
| MW-21-35-Event#3                  |                                      |            | 2                | V             |                             | $\checkmark$ |                       |                   |               |         |         |           |           |             |
| MW-21-3S-Event+BF                 | 19/0/21/14:25                        | GW         | 1                |               | V                           |              |                       |                   |               |         |         |           |           |             |
| MW-21-1D-Event#3                  | 1                                    | GW         | 3                | $\checkmark$  |                             | V            | $\checkmark$          |                   |               |         |         |           |           |             |
| MW-21-1D-Event +3-F               |                                      | GW         | 1                |               | $\checkmark$                |              |                       |                   |               |         |         |           |           |             |
| MW-21-15-Even+#3                  | 12/14/12:09                          | GW         | 3                | $\checkmark$  |                             | $\checkmark$ | $\checkmark$          |                   |               |         |         |           |           |             |
| MW-21-18-Event #37                | 1 1                                  | GW         | ١                |               | $\checkmark$                |              |                       |                   |               |         |         |           |           |             |
| MW-21-20-EVENT#3                  |                                      | GW         | 3                | V             |                             | V            | $\checkmark$          |                   |               |         |         |           |           |             |
| MW-21 - 20-EVEN7#3-FF             | 121141/11:15                         | GW         | 1                |               | V                           |              |                       |                   |               |         |         |           |           |             |
| AS-OUP-EVENT#3                    | 12/14/21/ 12:00                      | GW         | 3                | $\vee$        |                             | V            | $\checkmark$          |                   |               |         |         |           |           |             |
| AS-OUP-EVENT#3FF                  |                                      | GW         | 1                |               | V                           |              |                       |                   |               |         |         |           |           |             |
| OMMENTS                           |                                      |            |                  |               |                             |              |                       |                   |               |         |         |           |           |             |
| Relinquished By: (Signature) Date | e / Time Receiv                      | ed By: (Si | anature)         | R             | linquishe                   | d Bv: (S     | ignature)             | Date              | ə / Tin       | ne      | Receive | d By: (S  | lignature | (Q)         |
|                                   | 4/2021 14:02                         | Co         |                  | 2             | AC                          | n            |                       | D/12              |               |         | A       |           | gilatun   | -)          |
| Relinquished By: (Signature) Date | e / Time Receiv                      | ed By: (Si | gnature)         | Re            | elinquishe                  | ed By: (S    | ignature)             | Date              | e / Tin       | ne F 9  | Receive | ed By: (S | lignatur  | e)          |
|                                   |                                      | - 1. Law   |                  | _             |                             | 0.000        |                       |                   |               |         |         |           |           |             |

#### **CHAIN of CUSTODY**

600 Technology Way Katahdin Scarborough, ME 04074 Tel: (207) 874-2400

## PLEASE BEAR DOWN AND

| Fax                                                                            | : (207) 775-4029      |                          |                  |        |                  | PRI       | NT LEG       | IDLY II | PEN                           |          | Page              | ) | of |
|--------------------------------------------------------------------------------|-----------------------|--------------------------|------------------|--------|------------------|-----------|--------------|---------|-------------------------------|----------|-------------------|---|----|
| Client Arcadis & Sen                                                           | IS                    |                          | Conta            | ict    |                  |           | Phone #<br>( | )       |                               | F<br>(   | <sup>=</sup> ax # |   |    |
| Address                                                                        |                       | City                     |                  |        |                  |           | State        |         |                               | Zip Co   | de                |   |    |
| Purchase Order #                                                               | Pro                   | j. Name /                | No.              |        |                  |           |              |         | Katahd                        | in Quote | e #               |   |    |
| Bill (if different than above)                                                 |                       |                          | Ad               | ddress |                  |           |              |         |                               |          |                   |   |    |
| Sampler (Print / Sign) Grace                                                   | Sheckler              | V                        | lina             | a      | ller             | her       | /            | Сор     | oies To:                      |          | 5-01- 11- 530     |   |    |
| Sampler (Print / Sign) Grace<br>LAB USE ONLY WORK ORD                          | ER#: 50 \$6           | 31                       | <i>Joz</i>       |        |                  |           | ANALYSI      | PRESER  | <b>VATIVES</b>                | 5        |                   |   |    |
| REMARKS:                                                                       | ROJECT NUMBER _       |                          |                  | D Y D  |                  |           |              |         |                               | Filt.    |                   |   |    |
|                                                                                | 🗇 UPS                 | CLIE                     | NT               | Metals | Dissing Hote HIL | HUTDE     | HUFF         |         |                               |          |                   |   |    |
| TEMP°C TEMP BLAN                                                               |                       |                          | INTACT           |        | E AN             | mt Hult   | AN           |         |                               |          |                   |   |    |
| * Sample Description                                                           | Date / Time<br>coll'd | Matrix                   | No. of<br>Cntrs. | Total  | DCZ<br>DCZ       | Alk       | BOD MI       |         |                               |          |                   |   |    |
| MW-21-2S-Event#                                                                | 3 12/14/21/13:10      | GV                       | 3                |        |                  | V         | V            |         |                               |          |                   |   |    |
| MW-21-25-Event#3-<br>MW-21-3D-Event#3-                                         | 12/14/21/13:10        | GW                       | 1                |        | V                |           |              |         |                               |          |                   |   |    |
| MW-21-3D-5-01#3                                                                | 12/14/13:30           | GW                       | 3                |        |                  | $\bigvee$ | 5            |         |                               |          |                   |   |    |
| MW-21-3DEVENT#3-FF                                                             | 12/14/13:30           | GN                       | 1                |        | $\checkmark$     |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
|                                                                                | /                     |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
| COMMENTS                                                                       |                       |                          |                  |        |                  |           |              |         |                               |          |                   |   |    |
| Relinquished By: (Signature) Date<br>Date<br>Relinquished By: (Signature) Date | 4 14:02 ac            | ed By: (Si<br>ed By: (Si | _                | 6      | Relinguish       | 2         |              | P/14    | e / Tim<br>////.co<br>e / Tim |          | eceived E         |   |    |



**Arsenic Treatment Plant Data** 

#### Appendix F ATP Extraction Rates and Water Levels - October 2021 through January 2022 Shepley's Hill Landfill Devens, MA

| Date       | Flow Rate | EW-1 WL | EW-4 WL | EW-1 GW Elevation | EW-4 GW Elevation |  |  |  |  |
|------------|-----------|---------|---------|-------------------|-------------------|--|--|--|--|
|            | gpm       | ft bmp  | ft bmp  | ft amsl           | ft amsl           |  |  |  |  |
| 10/1/2021  | 20.3      | 24.27   | 35.31   | 203.73            | 192.79            |  |  |  |  |
| 10/2/2021  | 23.3      | 24.15   | 34.68   | 203.85            | 193.42            |  |  |  |  |
| 10/3/2021  | 23.1      | 24.04   | 34.88   | 203.96            | 193.22            |  |  |  |  |
| 10/4/2021  | 0.0       | 14.70   | 14.15   | 213.30            | 213.95            |  |  |  |  |
| 10/5/2021  | 0.0       | 14.23   | 13.28   | 213.77            | 214.82            |  |  |  |  |
| 10/6/2021  | 50.6      | 32.08   | 40.77   | 195.92            | 187.33            |  |  |  |  |
| 10/7/2021  | 50.3      | 32.33   | 41.74   | 195.67            | 186.36            |  |  |  |  |
| 10/8/2021  | 51.2      | 32.44   | 42.28   | 195.56            | 185.82            |  |  |  |  |
| 10/9/2021  | 50.1      | 32.45   | 42.19   | 195.55            | 185.91            |  |  |  |  |
| 10/10/2021 | 49.9      | 32.46   | 41.93   | 195.54            | 186.17            |  |  |  |  |
| 10/11/2021 | 50.6      | 32.85   | 43.02   | 195.15            | 185.08            |  |  |  |  |
| 10/12/2021 | 50.1      | 32.67   | 43.00   | 195.33            | 185.10            |  |  |  |  |
| 10/13/2021 | 51.2      | 32.89   | 43.37   | 195.11            | 184.73            |  |  |  |  |
| 10/14/2021 | 50.8      | 32.92   | 43.81   | 195.08            | 184.29            |  |  |  |  |
| 10/15/2021 | 50.5      | 33.04   | 43.72   | 194.96            | 184.38            |  |  |  |  |
| 10/16/2021 | 51.1      | 32.99   | 43.85   | 195.01            | 184.25            |  |  |  |  |
| 10/17/2021 | 49.6      | 32.70   | 43.85   | 195.30            | 184.25            |  |  |  |  |
| 10/18/2021 | 50.7      | 32.95   | 44.37   | 195.05            | 183.73            |  |  |  |  |
| 10/19/2021 | 51.0      | 31.67   | 38.71   | 196.33            | 189.39            |  |  |  |  |
| 10/20/2021 | 51.2      | 31.80   | 38.48   | 196.20            | 189.62            |  |  |  |  |
| 10/21/2021 | 51.0      | 32.23   | 38.92   | 195.77            | 189.18            |  |  |  |  |
| 10/22/2021 | 51.0      | 32.38   | 39.19   | 195.62            | 188.91            |  |  |  |  |
| 10/23/2021 | 51.5      | 32.44   | 39.33   | 195.56            | 188.77            |  |  |  |  |
| 10/24/2021 | 50.7      | 32.32   | 39.63   | 195.68            | 188.47            |  |  |  |  |
| 10/25/2021 | 51.0      | 32.03   | 39.43   | 195.97            | 188.67            |  |  |  |  |
| 10/26/2021 | 50.8      | 32.35   | 39.72   | 195.65            | 188.38            |  |  |  |  |
| 10/27/2021 | 51.5      | 31.82   | 39.04   | 196.18            | 189.06            |  |  |  |  |
| 10/28/2021 | 50.8      | 31.47   | 38.79   | 196.53            | 189.31            |  |  |  |  |
| 10/29/2021 | 50.5      | 31.94   | 37.93   | 196.06            | 190.17            |  |  |  |  |
| 10/30/2021 | 51.4      | 32.10   | 39.23   | 195.90            | 188.87            |  |  |  |  |
| 10/31/2021 | 51.1      | 31.63   | 39.75   | 196.37            | 188.35            |  |  |  |  |
| Average    | 44.7      | 30.40   | 38.66   | 197.60            | 189.44            |  |  |  |  |

#### Appendix F ATP Extraction Rates and Water Levels - October 2021 through January 2022 Shepley's Hill Landfill Devens, MA

| Date       | Flow Rate | EW-1 WL | EW-4 WL | EW-1 GW Elevation | EW-4 GW Elevation |  |  |  |  |
|------------|-----------|---------|---------|-------------------|-------------------|--|--|--|--|
|            | gpm       | ft bmp  | ft bmp  | ft amsl           | ft amsl           |  |  |  |  |
| 11/1/2021  | 0.0       | 13.82   | 13.55   | 214.18            | 214.55            |  |  |  |  |
| 11/2/2021  | 0.0       | 13.82   | 13.05   | 214.18            | 215.05            |  |  |  |  |
| 11/3/2021  | 0.0       | 14.81   | 20.62   | 213.19            | 207.48            |  |  |  |  |
| 11/4/2021  | 59.4      | 34.82   | 45.04   | 193.18            | 183.06            |  |  |  |  |
| 11/5/2021  | 58.0      | 34.41   | 45.54   | 193.59            | 182.56            |  |  |  |  |
| 11/6/2021  | 59.0      | 35.04   | 45.76   | 192.96            | 182.34            |  |  |  |  |
| 11/7/2021  | 59.4      | 35.20   | 45.95   | 192.80            | 182.15            |  |  |  |  |
| 11/8/2021  | 62.2      | 35.69   | 42.24   | 192.31            | 185.86            |  |  |  |  |
| 11/9/2021  | 62.8      | 35.63   | 43.52   | 192.37            | 184.58            |  |  |  |  |
| 11/10/2021 | 61.6      | 35.90   | 43.15   | 192.10            | 184.95            |  |  |  |  |
| 11/11/2021 | 62.1      | 35.78   | 43.43   | 192.22            | 184.67            |  |  |  |  |
| 11/12/2021 | 58.9      | 34.95   | 45.24   | 193.05            | 182.86            |  |  |  |  |
| 11/13/2021 | 60.0      | 35.42   | 45.83   | 192.58            | 182.27            |  |  |  |  |
| 11/14/2021 | 59.2      | 35.51   | 46.29   | 192.49            | 181.81            |  |  |  |  |
| 11/15/2021 | 59.2      | 35.40   | 46.47   | 192.60            | 181.63            |  |  |  |  |
| 11/16/2021 | 62.8      | 36.94   | 45.84   | 191.06            | 182.26            |  |  |  |  |
| 11/17/2021 | 63.1      | 36.88   | 45.61   | 191.12            | 182.49            |  |  |  |  |
| 11/18/2021 | 62.9      | 36.72   | 46.78   | 191.28            | 181.32            |  |  |  |  |
| 11/19/2021 | 62.8      | 37.06   | 46.62   | 190.94            | 181.48            |  |  |  |  |
| 11/20/2021 | 62.8      | 37.35   | 46.25   | 190.65            | 181.85            |  |  |  |  |
| 11/21/2021 | 62.6      | 36.90   | 47.04   | 191.10            | 181.06            |  |  |  |  |
| 11/22/2021 | 63.6      | 37.19   | 47.81   | 190.81            | 180.29            |  |  |  |  |
| 11/23/2021 | 62.5      | 36.89   | 47.49   | 191.11            | 180.61            |  |  |  |  |
| 11/24/2021 | 62.6      | 37.42   | 47.40   | 190.58            | 180.70            |  |  |  |  |
| 11/25/2021 | 63.2      | 37.48   | 47.86   | 190.52            | 180.24            |  |  |  |  |
| 11/26/2021 | 62.6      | 37.03   | 47.99   | 190.97            | 180.11            |  |  |  |  |
| 11/27/2021 | 62.0      | 36.75   | 48.16   | 191.25            | 179.94            |  |  |  |  |
| 11/28/2021 | 63.0      | 37.27   | 47.76   | 190.73            | 180.34            |  |  |  |  |
| 11/29/2021 | 61.8      | 37.15   | 48.59   | 190.85            | 179.51            |  |  |  |  |
| 11/30/2021 | 0.0       | 14.64   | 14.54   | 213.36            | 213.56            |  |  |  |  |
| Average    | 53.3      | 33.33   | 42.05   | 194.67            | 186.05            |  |  |  |  |

# Appendix F ATP Extraction Rates and Water Levels - October 2021 through January 2022 Shepley's Hill Landfill

| Date       | Flow Rate | EW-1 WL | EW-4 WL | EW-1 GW Elevation | EW-4 GW Elevation |  |  |
|------------|-----------|---------|---------|-------------------|-------------------|--|--|
|            | gpm       | ft bmp  | ft bmp  | ft amsl           | ft amsl           |  |  |
| 12/1/2021  | 21.8      | 26.99   | 40.68   | 201.01            | 187.42            |  |  |
| 12/2/2021  | 59.7      | 36.45   | 49.15   | 191.55            | 178.95            |  |  |
| 12/3/2021  | 60.8      | 37.32   | 49.20   | 190.68            | 178.90            |  |  |
| 12/4/2021  | 61.9      | 37.18   | 47.69   | 190.82            | 180.41            |  |  |
| 12/5/2021  | 59.4      | 34.91   | 42.19   | 193.09            | 185.91            |  |  |
| 12/6/2021  | 0.0       | 14.95   | 14.82   | 213.05            | 213.28            |  |  |
| 12/7/2021  | 0.0       | 14.95   | 14.82   | 213.05            | 213.28            |  |  |
| 12/8/2021  | 60.2      | 36.28   | 47.93   | 191.72            | 180.17            |  |  |
| 12/9/2021  | 59.3      | 36.17   | 48.67   | 191.83            | 179.43            |  |  |
| 12/10/2021 | 57.8      | 35.78   | 47.99   | 192.22            | 180.11            |  |  |
| 12/11/2021 | 58.2      | 36.22   | 48.77   | 191.78            | 179.33            |  |  |
| 12/12/2021 | 58.2      | 36.54   | 48.66   | 191.46            | 179.44            |  |  |
| 12/13/2021 | 58.8      | 36.11   | 49.49   | 191.89            | 178.61            |  |  |
| 12/14/2021 | 58.2      | 36.19   | 47.09   | 191.81            | 181.01            |  |  |
| 12/15/2021 | 58.8      | 36.08   | 47.76   | 191.92            | 180.34            |  |  |
| 12/16/2021 | 59.2      | 35.99   | 48.68   | 192.01            | 179.42            |  |  |
| 12/17/2021 | 58.9      | 36.37   | 49.07   | 191.63            | 179.03            |  |  |
| 12/18/2021 | 58.5      | 36.21   | 48.78   | 191.79            | 179.32            |  |  |
| 12/19/2021 | 58.0      | 35.94   | 48.62   | 192.06            | 179.48            |  |  |
| 12/20/2021 | 60.6      | 35.84   | 46.91   | 192.16            | 181.19            |  |  |
| 12/21/2021 | 60.7      | 36.02   | 48.29   | 191.98            | 179.81            |  |  |
| 12/22/2021 | 60.8      | 36.34   | 48.78   | 191.66            | 179.32            |  |  |
| 12/23/2021 | 60.7      | 36.17   | 48.57   | 191.83            | 179.53            |  |  |
| 12/24/2021 | 61.1      | 36.54   | 49.08   | 191.46            | 179.02            |  |  |
| 12/25/2021 | 60.7      | 36.31   | 49.97   | 191.69            | 178.13            |  |  |
| 12/26/2021 | 61.1      | 36.40   | 49.49   | 191.60            | 178.61            |  |  |
| 12/27/2021 | 59.8      | 36.11   | 49.53   | 191.89            | 178.57            |  |  |
| 12/28/2021 | 61.4      | 35.77   | 44.68   | 192.23            | 183.42            |  |  |
| 12/29/2021 | 61.6      | 36.05   | 45.31   | 191.95            | 182.79            |  |  |
| 12/30/2021 | 60.6      | 35.78   | 45.01   | 192.22            | 183.09            |  |  |
| 12/31/2021 | 61.5      | 35.94   | 45.41   | 192.06            | 182.69            |  |  |
| Average    | 54.8      | 34.51   | 45.52   | 193.49            | 182.58            |  |  |

Devens, MA

### Appendix F ATP Extraction Rates and Water Levels - October 2021 through January 2022 Shepley's Hill Landfill Devens, MA

|           | Devens, wh |         |         |                   |                   |  |  |  |
|-----------|------------|---------|---------|-------------------|-------------------|--|--|--|
| Date      | Flow Rate  | EW-1 WL | EW-4 WL | EW-1 GW Elevation | EW-4 GW Elevation |  |  |  |
|           | gpm        | ft bmp  | ft bmp  | ft amsl           | ft amsl           |  |  |  |
| 1/1/2022  | 60.9       | 35.96   | 45.49   | 192.04            | 182.61            |  |  |  |
| 1/2/2022  | 61.0       | 35.96   | 45.71   | 192.04            | 182.39            |  |  |  |
| 1/3/2022  | 59.6       | 34.34   | 40.42   | 193.66            | 187.68            |  |  |  |
| 1/4/2022  | 0.0        | 14.57   | 14.07   | 213.43            | 214.03            |  |  |  |
| 1/5/2022  | 0.0        | 14.57   | 14.07   | 213.43            | 214.03            |  |  |  |
| 1/6/2022  | 53.1       | 30.60   | 42.05   | 197.40            | 186.05            |  |  |  |
| 1/7/2022  | 58.5       | 35.67   | 48.85   | 192.33            | 179.25            |  |  |  |
| 1/8/2022  | 58.4       | 36.18   | 48.52   | 191.82            | 179.58            |  |  |  |
| 1/9/2022  | 58.0       | 35.62   | 48.98   | 192.38            | 179.12            |  |  |  |
| 1/10/2022 | 58.4       | 36.10   | 48.74   | 191.90            | 179.36            |  |  |  |
| 1/11/2022 | 52.4       | 31.43   | 42.43   | 196.57            | 185.67            |  |  |  |
| 1/12/2022 | 58.8       | 35.86   | 48.74   | 192.14            | 179.36            |  |  |  |
| 1/13/2022 | 58.5       | 36.15   | 48.95   | 191.85            | 179.15            |  |  |  |
| 1/14/2022 | 58.7       | 35.86   | 49.44   | 192.14            | 178.66            |  |  |  |
| 1/15/2022 | 60.0       | 36.08   | 49.36   | 191.92            | 178.74            |  |  |  |
| 1/16/2022 | 59.1       | 36.21   | 49.39   | 191.79            | 178.71            |  |  |  |
| 1/17/2022 | 58.5       | 35.91   | 50.52   | 192.09            | 177.58            |  |  |  |
| 1/18/2022 | 58.8       | 36.18   | 50.18   | 191.82            | 177.92            |  |  |  |
| 1/19/2022 | 59.0       | 36.16   | 50.11   | 191.84            | 177.99            |  |  |  |
| 1/20/2022 | 59.8       | 36.44   | 49.73   | 191.56            | 178.37            |  |  |  |
| 1/21/2022 | 60.0       | 36.39   | 49.52   | 191.61            | 178.58            |  |  |  |
| 1/22/2022 | 59.1       | 36.28   | 49.89   | 191.72            | 178.21            |  |  |  |
| 1/23/2022 | 58.4       | 36.59   | 50.88   | 191.41            | 177.22            |  |  |  |
| 1/24/2022 | 58.1       | 36.68   | 50.52   | 191.32            | 177.58            |  |  |  |
| 1/25/2022 | 59.3       | 36.82   | 50.57   | 191.18            | 177.53            |  |  |  |
| 1/26/2022 | 58.3       | 36.58   | 50.19   | 191.42            | 177.91            |  |  |  |
| 1/27/2022 | 57.9       | 36.86   | 50.50   | 191.14            | 177.60            |  |  |  |
| 1/28/2022 | 57.9       | 36.64   | 50.68   | 191.36            | 177.42            |  |  |  |
| 1/29/2022 | 59.3       | 37.01   | 51.78   | 190.99            | 176.32            |  |  |  |
| 1/30/2022 | 58.4       | 36.76   | 51.08   | 191.24            | 177.02            |  |  |  |
| 1/31/2022 | 58.8       | 37.61   | 51.42   | 190.39            | 176.68            |  |  |  |
| Average   | 54.7       | 34.52   | 46.54   | 193.48            | 181.56            |  |  |  |

#### ATP Operations Summary - October 2021 Shepley's Hill Landfill Devens, Massachusetts

| Date       | Hours<br>Online | Gallons<br>Discharged | Average<br>Effluent<br>Flowrate | Status                                                                                                            |
|------------|-----------------|-----------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 10/1/2021  | 24              | 68,900                | 47.8                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/2/2021  | 24              | 68,700                | 47.7                            | System online and operating.                                                                                      |
| 10/3/2021  | 24              | 69,300                | 48.1                            | System online and operating.                                                                                      |
| 10/4/2021  | 8               | 24,000                | 48.5                            | System offline at 0815 for CIP activities.                                                                        |
| 10/5/2021  | 10.8            | 31,500                | 48.8                            | System online at 1315 following CIP activities. FBRO pumped out.                                                  |
| 10/6/2021  | 23.0            | 66,700                | 48.3                            | System offline between 1000 and 1100 for Cl2 tank replacement.<br>Air sparged IPC. Manually pumped excess sludge. |
| 10/7/2021  | 24              | 69,100                | 48.0                            | System online and operating.                                                                                      |
| 10/8/2021  | 24              | 69,500                | 48.3                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/9/2021  | 24              | 69,100                | 48.0                            | System online and operating.                                                                                      |
| 10/10/2021 | 24              | 69,400                | 48.2                            | System online and operating.                                                                                      |
| 10/11/2021 | 24              | 69,600                | 48.3                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/12/2021 | 24              | 69,100                | 48.0                            | System online and operating.                                                                                      |
| 10/13/2021 | 24              | 68,800                | 47.8                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/14/2021 | 24              | 68,400                | 47.5                            | System online and operating.                                                                                      |
| 10/15/2021 | 24              | 69,400                | 48.2                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/16/2021 | 24              | 68,600                | 47.6                            | System online and operating.                                                                                      |
| 10/17/2021 | 24              | 69,800                | 48.5                            | System online and operating.                                                                                      |
| 10/18/2021 | 24              | 68,400                | 47.5                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/19/2021 | 24              | 68,700                | 48.2                            | System offline between 0915 and 0930 for FBRO pump out. Air sparged IPC. Manually pumped excess sludge.           |
| 10/20/2021 | 24              | 69,300                | 48.1                            | System online and operating.                                                                                      |
| 10/21/2021 | 24              | 68,600                | 47.6                            | System online and operating.                                                                                      |
| 10/22/2021 | 24              | 69,000                | 47.9                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                   |
| 10/23/2021 | 24              | 69,500                | 48.3                            | System online and operating.                                                                                      |
| 10/24/2021 | 24              | 69,600                | 48.3                            | System online and operating.                                                                                      |
| 10/25/2021 | 24              | 69,000                | 47.9                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/26/2021 | 24              | 68,800                | 47.8                            | System online and operating.                                                                                      |
| 10/27/2021 | 24              | 69,400                | 48.2                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/28/2021 | 24.00           | 69,900                | 48.5                            | System online and operating.                                                                                      |
| 10/29/2021 | 24              | 68,600                | 47.6                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                      |
| 10/30/2021 | 24              | 69,700                | 48.4                            | System online and operating.                                                                                      |
| 10/31/2021 | 24              | 69,000                | 47.9                            | System online and operating.                                                                                      |

| Total                       | Total 713.8 |  |      |
|-----------------------------|-------------|--|------|
| Total<br>Available<br>Hours | ailable 744 |  | 48.0 |
|                             |             |  |      |
| Percent<br>Online           | 96          |  |      |

Note:

Flowrate in Gallons per Minute (GPM) Clean in Place (CIP)

#### ATP Operations Summary - November 2021 Shepley's Hill Landfill Devens, Massachusetts

| Date       | Hours<br>Online | Gallons<br>Discharged | Average<br>Effluent<br>Flowrate | Status                                                                                                                                                                                                  |
|------------|-----------------|-----------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11/1/2021  | 1               | 4,300                 | 71.7                            | System offline from 2356 (on 10/31/21) to 0630 due to a microfilter high pressure alarm. Reset and restarted system to test skid between 0630 and 0730. System offline at 0730 to replace microfilters. |
| 11/2/2021  | 8.5             | 26,000                | 51.0                            | FBRO pumped out. System online at 1130 following microfilter<br>replacement. System offline at 2000 due to microfilter high<br>pressure alarm.                                                          |
| 11/3/2021  | 11.00           | 36,500                | 55.3                            | Replaced faulty butterfly valve on microfilter skid and tested<br>system pressure. System fully online at 1530.                                                                                         |
| 11/4/2021  | 24              | 79,700                | 55.3                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                                                                                                         |
| 11/5/2021  | 24              | 78,500                | 54.5                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                                                                                                         |
| 11/6/2021  | 24              | 79,000                | 54.9                            | System online and operating.                                                                                                                                                                            |
| 11/7/2021  | 24              | 82,400                | 57.2                            | System online and operating.                                                                                                                                                                            |
| 11/8/2021  | 23              | 76,600                | 54.9                            | System offline between 1000 and 1045 to install new air line<br>check valve on microfilter skid. Air sparged IPC. Manually<br>pumped excess sludge.                                                     |
| 11/9/2021  | 24              | 79,500                | 55.2                            | System online and operating.                                                                                                                                                                            |
| 11/10/2021 | 24              | 78,800                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                                                                                                         |
| 11/11/2021 | 24              | 79,700                | 55.3                            | System online and operating.                                                                                                                                                                            |
| 11/12/2021 | 23              | 75,600                | 54.8                            | System offline between 0930 and 1030 to replace an actuator valve on the microfilter skid. Air sparged IPC. Manually pumped excess sludge.                                                              |
| 11/13/2021 | 24              | 79,200                | 55.0                            | System online and operating.                                                                                                                                                                            |
| 11/14/2021 | 24              | 78,600                | 54.6                            | System online and operating.                                                                                                                                                                            |
| 11/15/2021 | 24              | 79,700                | 55.3                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                                                                                                            |
| 11/16/2021 | 24              | 78,400                | 55.0                            | System offline between 0915 and 0930 for FBRO pump out. Air<br>sparged IPC. Manually pumped excess sludge.                                                                                              |
| 11/17/2021 | 24              | 78,600                | 54.6                            | System online and operating.                                                                                                                                                                            |
| 11/18/2021 | 24              | 79,200                | 55.0                            | System online and operating.                                                                                                                                                                            |
| 11/19/2021 | 24              | 79,000                | 54.9                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                                                                                                            |
| 11/20/2021 | 24              | 78,400                | 54.4                            | System online and operating.                                                                                                                                                                            |
| 11/21/2021 | 24              | 78,500                | 54.5                            | System online and operating.                                                                                                                                                                            |
| 11/22/2021 | 24              | 78,700                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                                                                                                         |
| 11/23/2021 | 24              | 79,000                | 54.9                            | System online and operating.                                                                                                                                                                            |
| 11/24/2021 | 24              | 78,700                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                                                                                                         |
| 11/25/2021 | 24              | 78,800                | 54.7                            | System online and operating.                                                                                                                                                                            |
| 11/26/2021 | 24              | 79,600                | 55.3                            | System online and operating.                                                                                                                                                                            |
| 11/27/2021 | 24              | 78,700                | 54.7                            | System online and operating.                                                                                                                                                                            |
| 11/28/2021 | 24              | 78,700                | 54.7                            | System online and operating.                                                                                                                                                                            |
| 11/29/2021 | 24              | 78,700                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                                                                                                            |
| 11/30/2021 | 20              | 68,300                | 56.9                            | System offline between 0845 and 1245 to install and test new computer.                                                                                                                                  |

| Total                       | 662.5 | 2,185,400                |      |
|-----------------------------|-------|--------------------------|------|
| Total<br>Available<br>Hours | 720   | Average On-<br>line Flow | 55.0 |
|                             |       | 1                        |      |
| Percent<br>Online           | 92    |                          |      |

#### Note:

Flowrate in Gallons per Minute (GPM) Clean in Place (CIP)

#### ATP Operations Summary - December 2021 Shepley's Hill Landfill Devens, Massachusetts

| Date       | Hours<br>Online | Gallons<br>Discharged | Average<br>Effluent<br>Flowrate | Status                                                                                                             |
|------------|-----------------|-----------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 12/1/2021  | 24              | 79,200                | 55.0                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge. FBRO pumped out.                   |
| 12/2/2021  | 24              | 78,700                | 54.7                            | System online and operating.                                                                                       |
| 12/3/2021  | 24              | 78,500                | 54.5                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                       |
| 12/4/2021  | 24.0            | 79,000                | 54.9                            | System online and operating.                                                                                       |
| 12/5/2021  | 24              | 78,500                | 54.5                            | System online and operating.                                                                                       |
| 12/6/2021  | 7               | 27,400                | 65.2                            | System offline at 0700 for CIP activities.                                                                         |
| 12/7/2021  | 9               | 29,000                | 55.2                            | Replaced effluent pump foot valves. System online at 1515<br>following CIP activities.                             |
| 12/8/2021  | 24              | 79,100                | 54.9                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                    |
| 12/9/2021  | 24              | 79,100                | 54.9                            | System online and operating.                                                                                       |
| 12/10/2021 | 17              | 56,500                | 55.4                            | System offline at 0215 due to P1 VFD fault. Reset VFD and<br>restarted system at 0915.                             |
| 12/11/2021 | 24              | 79,100                | 54.9                            | System online and operating.                                                                                       |
| 12/12/2021 | 24              | 79,300                | 55.1                            | System online and operating.                                                                                       |
| 12/13/2021 | 24              | 78,300                | 54.4                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                    |
| 12/14/2021 | 23.0            | 74,800                | 54.2                            | System offline between 0915 and 1015 for FBRO pump out. Air sparged IPC. Manually pumped excess sludge.            |
| 12/15/2021 | 24.0            | 79,100                | 54.9                            | System online and operating.                                                                                       |
| 12/16/2021 | 24.0            | 79,000                | 54.9                            | System online and operating.                                                                                       |
| 12/17/2021 | 24              | 77,600                | 53.9                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                    |
| 12/18/2021 | 24.00           | 78,600                | 54.6                            | System online and operating.                                                                                       |
| 12/19/2021 | 24.0            | 79,500                | 55.2                            | System online and operating.                                                                                       |
| 12/20/2021 | 21              | 72,200                | 56.6                            | System offline between 0900 and 1145 for chlorine gas delivery;<br>Air sparged IPC. Manually pumped excess sludge. |
| 12/21/2021 | 24.00           | 78,600                | 54.6                            | System online and operating.                                                                                       |
| 12/22/2021 | 24.0            | 78,600                | 54.6                            | System online and operating.                                                                                       |
| 12/23/2021 | 24              | 78,300                | 54.4                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                                    |
| 12/24/2021 | 24              | 79,000                | 54.9                            | System online and operating.                                                                                       |
| 12/25/2021 | 24              | 78,700                | 54.7                            | System online and operating.                                                                                       |
| 12/26/2021 | 24              | 78,000                | 54.2                            | System online and operating.                                                                                       |
| 12/27/2021 | 24              | 79,000                | 54.9                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                       |
| 12/28/2021 | 23              | 73,400                | 54.4                            | System offline between 0915 and 1045 for FBRO pump out. Air sparged IPC. Manually pumped excess sludge.            |
| 12/29/2021 | 24.00           | 78,300                | 54.4                            | System online and operating.                                                                                       |
| 12/30/2021 | 24              | 78,400                | 54.4                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                                       |
| 12/31/2021 | 24              | 79,100                | 54.9                            | System online and operating.                                                                                       |

| Total                       | 699.5 | 2,301,900                |      |
|-----------------------------|-------|--------------------------|------|
| Total<br>Available<br>Hours | 744   | Average On-<br>line Flow | 54.8 |
|                             |       | 1                        |      |
| Percent<br>Online           | 94    |                          |      |

#### Note:

Flowrate in Gallons per Minute (GPM) Clean in Place (CIP)

#### ATP Operations Summary - January 2022 Shepley's Hill Landfill Devens, Massachusetts

| Date      | Hours<br>Online | Gallons<br>Discharged | Average<br>Effluent<br>Flowrate | Status                                                                                                     |
|-----------|-----------------|-----------------------|---------------------------------|------------------------------------------------------------------------------------------------------------|
| 1/1/2022  | 24              | 78,100                | 54.2                            | System online and operating.                                                                               |
| 1/2/2022  | 24              | 78,200                | 54.3                            | System online and operating.                                                                               |
| 1/3/2022  | 19.5            | 65,900                | 56.3                            | System offline between 0715 and 1145 to replace Pump P1 on<br>microfilter skid.                            |
| 1/4/2022  | 7.5             | 24,900                | 55.3                            | System offline at 0730 for CIP activities.                                                                 |
| 1/5/2022  | 11.75           | 38,700                | 54.9                            | System online at 1215 following CIP activities.                                                            |
| 1/6/2022  | 24              | 78,700                | 54.7                            | System online and operating.                                                                               |
| 1/7/2022  | 24              | 78,500                | 54.5                            | System online and operating.                                                                               |
| 1/8/2022  | 24              | 78,600                | 54.6                            | System online and operating.                                                                               |
| 1/9/2022  | 24              | 79,200                | 55.0                            | System online and operating.                                                                               |
| 1/10/2022 | 24              | 78,200                | 54.3                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/11/2022 | 24              | 79,300                | 55.1                            | System online and operating.                                                                               |
| 1/12/2022 | 23.75           | 77,800                | 54.6                            | System offline between 0915 and 0930 for FBRO pump out. Air<br>sparged IPC. Manually pumped excess sludge. |
| 1/13/2022 | 24              | 78,000                | 54.2                            | System online and operating.                                                                               |
| 1/14/2022 | 24              | 78,800                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/15/2022 | 24              | 77,600                | 53.9                            | System online and operating.                                                                               |
| 1/16/2022 | 24              | 79,600                | 55.3                            | System online and operating.                                                                               |
| 1/17/2022 | 24              | 77,600                | 53.9                            | System online and operating. Air sparged IPC. Manually pumped<br>excess sludge.                            |
| 1/18/2022 | 24              | 79,600                | 55.3                            | System online and operating.                                                                               |
| 1/19/2022 | 24              | 77,600                | 53.9                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/20/2022 | 24              | 79,600                | 55.3                            | System online and operating.                                                                               |
| 1/21/2022 | 24              | 77,700                | 54.0                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/22/2022 | 24              | 79,600                | 55.3                            | System online and operating.                                                                               |
| 1/23/2022 | 24              | 78,500                | 54.5                            | System online and operating.                                                                               |
| 1/24/2022 | 24              | 78,800                | 54.7                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/25/2022 | 24              | 78,200                | 54.3                            | FBRO pumped out. Air sparged IPC. Manually pumped excess sludge.                                           |
| 1/26/2022 | 24              | 78,400                | 54.4                            | System online and operating.                                                                               |
| 1/27/2022 | 24              | 78,700                | 54.7                            | System online and operating.                                                                               |
| 1/28/2022 | 24              | 78,300                | 54.4                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |
| 1/29/2022 | 24              | 78,200                | 54.3                            | System online and operating.                                                                               |
| 1/30/2022 | 24              | 79,100                | 54.9                            | System online and operating.                                                                               |
| 1/31/2022 | 24              | 78,000                | 54.2                            | System online and operating. Air sparged IPC. Manually pumped excess sludge.                               |

| Total                       | 710.5         | 2,328,000 |      |
|-----------------------------|---------------|-----------|------|
| Total<br>Available<br>Hours | Available 744 |           | 54.6 |
| Percent<br>Online           | 95            |           |      |

<u>Note:</u> Flowrate in Gallons per Minute (GPM) Clean in Place (CIP)

# Appendix F ATP As/Fe/Mn Influent Concentrations - Fall 2021 Shepley's Hill Landfill Devens, MA

|            |      | EW-01 |      |      | EW-04 |      |      | Total |      |      |       |
|------------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Date       | Flow | As    | Fe   | Mn   | As    | Fe   | Mn   | As    | Fe   | Mn   | Total |
| 9/7/2021   | 48.2 | 1.70  | 70.8 | 2.3  | 3.41  | 41.7 | 2.67 | 2.56  | 56.3 | 2.49 | 61.29 |
| 12/10/2021 | 54.8 | 1.65  | 64.8 | 2.13 | 3.35  | 39.8 | 2.53 | 2.50  | 52.3 | 2.33 | 57.13 |
|            |      |       |      |      |       |      |      |       |      |      |       |

2.53 54.28 2.41 59.21

Note:

Concentrations reported in mg/l (ppm) Flow reported in gallons per a minute (gpm)



**Response to Comments** 



| Proje | ct Name: Fo          | rmer Fort Devens Army Installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RTC Date                                                                                                                                                                                                                                                                                            | :                | September 29, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reviewer:                                                                                                                                                                                                                                                                                           |                  | USEPA and MassDEP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Docu  | Re                   | raft In-Situ Air Sparge Pilot Test Implementation<br>eport, Shepley's Hill Landfill, Former Fort Devens<br>rmy Installation, Devens, Massachusetts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| No.   | Ref.<br>Page / Para. | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                     |                  | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|       |                      | EPA GENERAL COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1.    |                      | In-situ Air Sparging (IAS) offers good potential as a<br>remedial option to prevent or decrease the continued<br>migration of arsenic mobilized by reducing geocher<br>conditions created by the landfill. Overall, the IAS p<br>results appear to be positive for the shallow (S-inter<br>overburden. However, oxygen distribution in the de<br>interval) overburden has been limited and decreases<br>dissolved arsenic concentrations have been less effe                                                                                                                                                                          | d<br>mical<br>pilot test<br>val)<br>eep (D-<br>5 in                                                                                                                                                                                                                                                 | IAS wi<br>(FFS). | ll be further evaluated as part of the Focused Feasibility Study                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2.    |                      | With the exception of Section 3.4.3, the general hydrony conditions during the test are not fully described and therefore a clear understanding of tests performance particularly related to groundwater transport times, problematic. For example, what were the weather conduring the test? How might variations in precipitation the test results? The inclusion of a long-term hydro water levels would be helpful to frame ASPT conditional tests are not fully described and the test for the test for the test for the helpful to frame the test for the helpful to frame the test for the test for the helpful to frame test. | during the test are not fully described and<br>clear understanding of tests performance,<br>related to groundwater transport times, is<br>2. For example, what were the weather conditions<br>est? How might variations in precipitation affect<br>ilts? The inclusion of a long-term hydrograph of |                  | table measurements were collected intermittently during the pilot,<br>analysis of the impact of precipitation events and minor<br>on in water levels were not part of the scope of work. It is<br>y that precipitation events would have a significant effect on<br>water flow during the three-month period. Pilot study objectives<br>efined as:<br>etermination of the operational and design parameters for a full-<br>ale IAS treatment system including:<br>o optimum injection pressure and injection flow rate<br>o optimum operational mode<br>o effective IAS zone of influence (ZOI).<br>essessment of the potential for iron fouling of the air sparging<br>ells and the surrounding formation, resulting in a limited ability to<br>ect air and reduced efficacy of treatment<br>valuation of rebound of concentrations of arsenic in groundwater<br>nonth after shutdown of the system<br>sessment of the level of effort required to operate and maintain<br>&M) an air sparging remediation system. |



| No. | Ref.<br>Page / Para. | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.  |                      | Hydraulic conductivities of the wells should be computed and related to results of the tests. This information will help interpret results at the monitoring wells and beyond.         The feasibility of the air sparge is partly contingent on the bucket test. However, the test was of limited scope and it the sequence of sediments it represents is unclear.                                                                                                                                                                                                                                                                   | No changes were made to the report to address this comment.The relative change in specific conductivity at individual wells was<br>assessed as part of the pilot (to assess for potential iron fouling), but<br>hydraulic conductivity data were not collected. No changes were made<br>to the report to address this comment.The bucket test was used to qualitatively test the potential of air<br>                                                                                                                                                                                                                                                                                                                                                         |
| 5.  |                      | Rebound is a major concern after air sparging because<br>arsenic is not destroyed. Rebound potential has not been<br>fully vetted in the work to date because of the limited time<br>allocated to study rebound. Further, the heterogeneity of the<br>system, as it controls air sparging Zone of Influence (ZOI)<br>and rebound, should be more fully evaluated. For example,<br>at wells where the specific capacity was shown to decrease<br>post-Air Sparging Pilot Test (ASPT), would a return to<br>reducing conditions increase arsenic dissolution more readily<br>than wells that did not see a change in specific capacity? | The Army expects full-scale implementation of IAS would require<br>continued, pulsed long-term active remediation to maintain geochemical<br>conditions to control rebound and treat arsenic flux migrating from<br>upgradient of the sparge well network. Any localized heterogeneity of<br>the formation which may impact system performance would be<br>addressed through an adaptive design and implementation approach<br>during installation of a full-scale system sparge well network. It could<br>be further addressed through system optimization and performance<br>tracking during startup testing and operation. This will be discussed in<br>the FFS. No changes were made to the report to address this comment.                               |
| 6.  |                      | The air sparge pilot tests showed the ability on a small scale<br>to reduce arsenic concentrations in groundwater. However,<br>the feasibility of air sparging to mitigate high arsenic<br>concentrations in groundwater will require more extensive<br>testing particularly when evaluating the impact of rebound.<br>How long will it take for redox conditions to revert? Does<br>precipitation of oxyhydroxides lead to an increase in<br>immobile porosity and preventing future dissolution?                                                                                                                                    | The pilot test results are limited to the scope described in the work plan.<br>Section 3.6 (Conclusions) in the report states that and additional data<br>and tests would be required to plan and design a full-scale system. As<br>indicated in the Army's response to Comment 5, the Army expects that<br>a full-scale IAS would require long-term active remediation to maintain<br>geochemical conditions in the aquifer to control dissolution of the<br>precipitated arsenic. While the Army agrees that the time it would take<br>post IAS operation for redox conditions to change resulting in the<br>dissolution of precipitated arsenic is an important parameter to<br>determine, it is beyond the scope of the pilot test. The impact of changes |



| No. | Ref.<br>Page / Para.                                             | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | in the porosity and groundwater flow through areas where precipitation<br>has occurred is also beyond the scope of this pilot study. No changes<br>were made to the report to address this comment.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7.  |                                                                  | Additional study of the interplay of air sparging with the existing pumping system and treatment is needed if air sparging is intended to complement (or replace?) the existing pump and ATP system. If arsenic concentrations are locally reduced will that decrease the arsenic mass capture by the pumping wells and treatment efficiency?                                                                                                                                                                                                                                                                      | The FFS will evaluate and rank remedial alternatives including the ATP, IAS, and a combination of the two. If IAS were implemented upgradient of the ATP extraction wells, the Army would expect a reduction in arsenic mass flux to the ATP, but no decline in treatment efficiency. No changes to the report were made to address this comment.                                                                                                                                                                                                                                                                                          |
|     |                                                                  | EPA PAGE-SPECIFIC COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.  | Page 1, § 1.1, 2 <sup>nd</sup> ¶                                 | The last sentence is somewhat contradictory to the first. Is it saying that the well-graded units (specified in first sentence) are predominate?                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The text has been revised for clarity. The intent of the paragraph was to describe the general geology present at SHL and to indicate that the saturated soil is predominantly medium and fine to medium sand with little variability, underlain by a thin layer of discontinuous till atop the bedrock. A more detailed description of the site geology within the pilot test area is included in Section 3.1.                                                                                                                                                                                                                            |
| 2.  | Page 3, § 1.3,<br>1 <sup>st</sup> bullet                         | Since little insight was gained with respect to the "effective<br>zone of influence (ZOI)" of the air sparge, this objective was<br>not met. How will the operational and design parameters for<br>a full-scale IAS treatment system be determined absent this<br>critical information? For standard hydraulic tests, a common<br>interpretive tool is drawdown-distance curve, which allows<br>for an assessment of zone of influence from pumping.<br>Similar techniques should be applied here for this study to<br>help assess ZOI for the air sparging so that the extent of the<br>air sparge can be mapped. | The methods used to assess ZOI are consistent with industry practice as discussed in detail in paragraph 2-8a and described in the USACE In-Situ Air Sparging Engineer Manual, EM 200-1-19 (USACE IAS EM),. Section 3.5 in the report details the full-scale system conceptual design parameters including ZOI. In this section, the ZOI for the S-interval sparge wells was identified as greater than 15 feet, and the ZOI for the D-sparge wells was identified as 10 feet. The conceptual design parameters listed in Section 3.5 will be used to evaluate IAS in the FFS. No changes to the report were made to address this comment. |
| 3.  | Page 4, § 2.1,<br>4 <sup>th</sup> ¶                              | Please provide cross sections for the D- and S- well configurations with interpreted hydrogeology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cross-sections were provided as Figures 5 and 6. Water level measurements have been added to the figures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4.  | Page 6, § 2.3,<br>1 <sup>st</sup> ¶, 4 <sup>th</sup><br>sentence | Please explain why each step was run for only 60 minutes?<br>How was it determined that "approximately 60 minutes" was<br>the optimal period to run each step?                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Step tests were run consistent with the methods described in the<br>USACE IAS EM. The tests were run for approximately sixty minutes<br>based upon evaluation of data collected in the field at the time of the<br>test. The step tests were run until mounding of the groundwater table                                                                                                                                                                                                                                                                                                                                                   |



| No. | Ref.<br>Page / Para.                        | COMMENT                                                                                                                                                                                                                                                                            | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                             |                                                                                                                                                                                                                                                                                    | was observed to peak and begin to stabilize in the monitoring well<br>network. In December 2021, step tests were run for a longer period for<br>the D sparge wells and are presented in Appendix B. These longer tests<br>showed a similar response and time for water level to peak and<br>gradually decline/stabilize. Running the step tests for a longer period<br>would be of limited value. The text has been revised to clarify.                                                                                               |
| 5.  | Page 7, Tables<br>6 and 7                   | Please explain why these two tables appear in the narrative portion of the report and not in the "Tables" section with the others?                                                                                                                                                 | Tables 6 and 7 were included as in-text tables as an editorial choice for ease of review. No changes to the report were made to address this comment.                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.  | Page 10, §<br>3.1, 3 <sup>rd</sup> ¶        | The report suggests that site soil exhibits limited potential<br>for driving rebound. However, additional (longer term)<br>monitoring must be conducted to assess/determine if arsenic<br>remains co-precipitated once reducing conditions return to<br>pre-pilot test conditions. | Please see response to EPA's General Comment 6. No changes to the report were made to address this comment.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 7.  | Page 11, §<br>3.1, 2 <sup>nd</sup> (full) ¶ | What unit of the overburden was the bucket test done?                                                                                                                                                                                                                              | As described in the In-Situ Air Sparge Pilot Test Work Plan, bucket<br>tests were performed using groundwater collected from the screened<br>interval of monitoring wells SHP-2016-06A at a depth of 83.5 ft bmp,<br>SHM-10-06 at a depth of 85 ft bmp, and SHM-10-14 at a depth of 70 ft<br>bmp. These wells were selected because of their different locations and<br>concentrations/ratios of arsenic and iron. As the bucket test was not<br>described in detail in this report, no changes were made to address this<br>comment. |
| 8.  | Page 11, §<br>3.2.1, 2 <sup>nd</sup> ¶      | What was the basis of the "estimated groundwater velocity"?<br>The model? Is this a seepage velocity considering porosity?<br>Velocities in the shadow of the pumping wells are slower<br>than elsewhere. Please elaborate.                                                        | The estimated average groundwater seepage velocity has been updated<br>to a value of 1.5 feet per day based upon a 3PE analysis in the Technical<br>Memorandum Phase I Subtask 1.g. A reference has been added and the<br>text revised.                                                                                                                                                                                                                                                                                               |
| 9.  | Page 12, §<br>3.2.1                         | The report suggests the sparged air could potentially<br>migrating upward. Could deeper wells facilitate upward<br>movement of sparged air into the D interval?                                                                                                                    | The D-interval sparge wells are screened at the top of the till layer<br>overlying bedrock in the deepest interval conducive to sparging. Sparge<br>points installed within the till or bedrock would be in low permeability<br>materials that would make air injection very difficult, if not impractical.<br>This is a limitation of the technology, which will be discussed in the<br>FFS. No changes were made to the report to address this comment.                                                                             |



| No. | Ref.<br>Page / Para. | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10. | Page 13, §<br>3.2.1  | The report suggests that IAS should be successful where<br>dissolved iron concentrations are higher (as evidenced by the<br>SHN-10-6 results). If this is true, Army should consider pre-<br>treating a portion of the aquifer with amended dissolved iron<br>prior to sparging air to help co-precipitate the dissolved<br>arsenic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | The pilot test was conducted in an area of the site where the iron to<br>arsenic ratio was sufficient (actually, far greater than necessary) to<br>enable co-precipitation of the dissolved arsenic concentrations present.<br>Prior to implementation of an IAS remedy in any area of the site, the<br>iron to arsenic ratio in the projected IAS zone would be examined to<br>determine whether there is sufficient dissolved iron present to facilitate<br>co-precipitation of arsenic from the groundwater. No changes to the<br>report were made to address this comment. |
| 11. | Page 14, §<br>3.2.3  | The first bullet states that "calcite is significantly<br>undersaturated (saturation indices near -1 or lower),<br>suggesting that calcite is not present in the formation." This<br>should be confirmed by acid testing sediments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The text has been modified to say that calcite is likely not present. The sediments were not acid tested; this could be done in the future if additional testing is conducted.                                                                                                                                                                                                                                                                                                                                                                                                 |
| 12. | Page 14, §<br>3.2.3  | The fourth sentence beginning with, "Although significant quantities of calcite <i>are not likely present</i> in the formation" seems to contradict the conclusion in the first bullet that calcite " <i>is not</i> " present in the formation. Please explain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The text has been modified to say that calcite is likely not present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 13. | Page 15, §<br>3.3.1  | Evaluation of the concurrent change in groundwater arsenic<br>and iron concentrations prior to (August 2021) and following<br>(February 2022) the air sparge test can be used to estimate<br>the resulting solid phase concentration of arsenic co-<br>precipitated with the iron oxyhydroxide mineral ferrihydrite<br>(Fe <sub>5</sub> HO <sub>8</sub> .4H <sub>2</sub> O, 460 g/mole Fe). In the following graph,<br>these calculated values are plotted against the initial<br>dissolved arsenic concentration from baseline sampling at all<br>monitored wells. The range of coprecipitated arsenic varied<br>between 20-5500 mg As / kg ferrihydrite (or "Fh"). Labels<br>are included to indicate sampling locations. There is strong<br>correlation (R <sup>2</sup> 0.98) for all the well locations where<br>significant arsenic removal was observed over the testing<br>period (MW-21-1S, MW-21-2S, MW-21-3S, MW-21-4S,<br>MW-21-1D, MW-21-2D). Monitoring locations that<br>displayed limited response to air sparging plot away from the | The Army appreciates this additional analysis provided by the EPA and<br>the insight it provides to the performance evaluation of the pilot test. No<br>changes to the report were made to address this comment.                                                                                                                                                                                                                                                                                                                                                               |



| No. | Ref.<br>Page / Para.                                | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                   | RESPONSE                                                                                                                                                                                                                                                                                      |
|-----|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                     | correlation trend (MW-21-3D, MW-21-4D, SHM-10-06).<br>These results support the observation that observed decrease<br>in arsenic concentrations at location MW-21-4D is most<br>likely a result of groundwater transport versus<br>coprecipitation of arsenic and iron. The result for location<br>MW-21-3D suggests that there may be some contribution<br>from coprecipitation induced by air sparging. |                                                                                                                                                                                                                                                                                               |
| 14. | Page 15, §<br>3.3.2, 2 <sup>nd</sup><br>bullet      | Please explain how specific capacity was calculated or cite the reference method.                                                                                                                                                                                                                                                                                                                         | Specific capacity was determined by dividing the pumping rate by the stabilized drawdown observed. It is recommended that changes in SC be verified if additional assessment is warranted. The report text in Section 2.6 has been modified to describe how specific capacity was calculated. |
| 15. | Page 16, §<br>3.4.1, 2 <sup>nd</sup><br>bullet (and | In addition to hydraulic capacity checks, it is recommended<br>that the MW-21 well locations be re-developed along with<br>collection of recovered purge solids to assess iron                                                                                                                                                                                                                            | Noted. The Army would expect most of the iron precipitation to be<br>catalyzed by mineral surfaces and be present as coatings rather than<br>loose solids. However, further evaluation of recovered purged solids is                                                                          |



| No. | Ref.<br>Page / Para.                           | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | Page 19, §<br>3.5, last ¶) -                   | concentration. Hydraulic capacity tests can be relatively<br>insensitive to precipitation within the well pack. Analysis of<br>purged solids may provide a clearer diagnostic of the extent<br>of precipitation occurring within the formation adjacent to<br>the AS-21 and MW-21 locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | beyond the scope of the pilot test. No changes to the report were made<br>to address this comment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 16. | Page 16, §<br>3.4.1, 3 <sup>rd</sup><br>bullet | Relative to system design and performance, the<br>concentration of DO that is needed to support sufficient<br>precipitation of iron is an important consideration.<br>Ultimately, a system optimized to minimize clogging of well<br>screens and aquifer solids would introduce air at a rate to<br>sustain the minimum DO concentration that supports ferrous<br>iron oxidation at a rate with a half-life comparable to the rate<br>of groundwater transport. It is recommended that future<br>testing more closely examine the rate of ferrous iron<br>oxidation as a function of DO concentration to identify an<br>optimal sparge rate that minimizes introduction of excess<br>DO into the aquifer. Following is an empirical study that<br>examines the influence of DO concentration on the rate of<br>ferrous iron oxidation in groundwater: Ghosh, M., 1962. A<br>study of the rate of oxidation of iron in aerated ground<br>waters. Sanitary Engineering Series; no. 012<br>(https://core.ac.uk/download/pdf/16504188.pdf). This could<br>be of particular importance for the deep zone where ferrous<br>iron concentrations are high. | The Army appreciates this insight, but we also point out that the greater<br>objective for air sparging is to achieve widespread distribution of<br>oxygen within the aquifer to maximize the extent of iron oxidation and<br>arsenic removal and to sustain an oxidizing condition in groundwater.<br>As EPA points out in Comment 18 below, delivering greater quantities<br>of oxygen (rather than less), and attaining an excess of dissolved oxygen<br>over dissolved iron in groundwater to support an oxidizing condition,<br>would be required to achieve this goal. No changes to the report were<br>made to address this comment. |
| 17. | Page 17, §<br>3.4.1, top of<br>page            | These results should be compared to the hydrostratigraphic sequences to develop a more complete picture of the site remediation potential.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | The following text was added to Section 3.4.2: "Silty sand or clayey<br>were noted to be present above bedrock and/or till at AS-21-1D, AS-21-<br>2D, MW-21-2D, and MW-21-4D (Appendix A). Sands with silt content<br>would be anticipated to be less conducive to successful distribution of<br>air throughout the aquifer. These deeper depths in the overburden                                                                                                                                                                                                                                                                          |



| No. | Ref.<br>Page / Para.                                                  | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | correlate with higher concentrations of arsenic in both groundwater and soils, making treatment at this interval more difficult."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 18. | Page 17, §<br>3.4.2                                                   | EPA agrees that additional assessment of the deeper sands<br>above the till is appropriate and that closer-spaced D sparge<br>points would improve treatment of the deep overburden,<br>where higher arsenic concentrations occur. Army should<br>also consider injecting oxygen instead of air in the D<br>interval, which may infuse more dissolved oxygen directly<br>into the deeper groundwater.                                                                                                                                                                                                                    | Injection of oxygenated groundwater will be considered when<br>developing remedial alternatives in the FFS. However, we point out that<br>simply switching to a gas that has higher partial pressures of oxygen<br>may not fully meet the objective of attaining the necessary dissolved<br>oxygen concentrations at depth. The other primary challenge in this<br>system is the fact that injected gas rises quickly within the water<br>column. A primary limitation on oxygen dissolution into the water<br>therefore involves the gas-liquid interfacial area that can be achieved<br>with sparging and the rate at which the gas rises out of the injection<br>zone. No changes to the report were made to address this comment. |
| 19. | Page 17, §<br>3.4.3                                                   | In the absence of knowledge of the timing of on and off<br>periods of air sparging, it is difficult to interpret groundwater<br>flow gradients from the manual water level measurements.<br>Initial analysis of these data using 3PE gradient calculations<br>reveals many gradient directions that make no sense, most<br>likely due to the influence of air sparging. For future<br>assessments, it is recommended that either the timing of<br>manual measurements be scheduled to occur during the end<br>of non-purge periods and/or instrumenting monitor wells<br>with continuously logging pressure transducers. | The field monitoring procedure was refined after November 10, 2021, to<br>turn the system off for at least an hour before the collection of any<br>manual field measurements to help with the interpretation of data. This<br>has been added as a note to Table 8. Data presented are potentially<br>impacted by the influence of air sparging. Water level measurements<br>collected in an active sparge area should not be used to assess flow<br>gradients; non-sparging flow gradient was used to inform placement of<br>pilot IAS points and performance monitoring wells.                                                                                                                                                       |
| 20. | Pages 17 (last<br>sentence) and<br>18 (first<br>sentence), §<br>3.4.3 | See Comment 8 regarding estimated groundwater velocity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Please see the response to EPA Comment #8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 21. | Page 18, §<br>3.4.3, 1 <sup>st</sup> ¶                                | The second and third sentences refer to dissolved oxygen as<br>a "conservative" tracer. However, dissolved oxygen is a<br>reactive tracer. Please revise the discussion to refer to<br>retarded or slow velocity.                                                                                                                                                                                                                                                                                                                                                                                                        | Agree, the discussion referenced indicates that the estimated 0.6 feet per<br>day as calculated by the arrival of dissolved oxygen at downgradient<br>monitoring well MW-21-4S is a low estimate of groundwater velocity<br>because dissolved oxygen is not a conservative tracer and is consumed<br>by oxygen demand present in the aquifer. The text, "if dissolved oxygen<br>was a conservative tracer" has been deleted for clarity.                                                                                                                                                                                                                                                                                              |



| No. | Ref.<br>Page / Para.                 | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22. | Page 18, §<br>3.5, 3 <sup>rd</sup> ¶ | The third sentence states that, "Post-shutdown of the system,<br>dissolved oxygen concentrations remained elevated, and<br>arsenic and iron concentrations remained low in many of the<br>monitoring wells 1 month post-operation of the system."<br>Available data does not support this conclusion. Please<br>explain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dissolved oxygen remained elevated above baseline in 5 out of the 8 monitoring wells one month following system shutdown (2S, 3S,1D, 2D, and 3D). Dissolved arsenic remained low in 6 out of the 8 monitoring wells (1S, 2S, 3S, 4S, 1D, and 2D). Dissolved iron remained low in 5 out of the 8 monitoring wells (1S, 2S, 3S, 1D, and 2D). The section has been revised to provide clarity and supporting data.                                                                                                                     |
| 23. | Pages 19 - 20,<br>§ 3.6              | EPA concurs with the proposed additional testing and<br>evaluations provided in the three bullets (i.e., determining<br>need for S interval sparge points (vs. using only D interval<br>sparge points), need for longer term assessment of potential<br>well fouling or decreases in sparge point performance, and<br>assessing potential impacts to dissolved metal concentrations<br>once reducing geochemical conditions return). All of these<br>aspects can be better assessed through longer term<br>evaluations.                                                                                                                                                                                                                                                                                                                           | Noted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 24. | Table 1                              | Please add well diameter information to the table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The diameter of the installed wells has been added to Table 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 25. | Table 2                              | The table presents soil concentrations for arsenic and other<br>co-related constituents. It would be useful if the soil<br>concentrations was related to grain-size classification. Based<br>on the log in Appendix A, it appears the stratigraphy at the<br>site has a deltaic sequence. An upper alluvial plain of<br>medium sands overlying a coarser proximal deltaic fan that<br>in turn overlies a distal deltaic fan that rests on top of the<br>basal till. The highest arsenic concentrations appear to<br>correspond to the finer sequences and conversely the lowest<br>arsenic soil concentrations appear to correspond to the<br>middle proximal deltaic fan sequence. <u>No soil concentrations</u><br><u>appear to have been collected in the basal till</u> . Please add the<br>grain type from the Appendix A log to this table. | Soil descriptions and USCS soil classification has been added to<br>Table 2. Pre-existing data collected during site investigations include<br>samples collected throughout the soil column including from basal till.<br>These data do not indicate a correlation between arsenic soil<br>concentrations and depositional history. Rather, the data indicate arsenic<br>soil concentrations are more a function of oxidative dissolution of the<br>nearby arsenopyrites and a migration of arsenic into soils over a long<br>time. |
| 26. | Table 4                              | Include information on elevation differences for z reference.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Table 4 has been updated to include elevation information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



| No. | Ref.<br>Page / Para.                   | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | RESPONSE                                                                                                                                                                                                                       |
|-----|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27. | Table 8                                | Please explain the high turbidity in several sampling events.<br>Some of the turbidity is high for low flow rates. Is that a<br>function of the increased oxygen?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Higher turbidity readings may be indicative of more suspended solids<br>and/or mixing in groundwater during periods of sparging and iron<br>precipitation. No changes have been made to the report to address this<br>comment. |
| 28. | Table 8                                | The presentation of system operation information is<br>appreciated. EPA requests that pumping operation<br>information also be included.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ATP data are provided in Appendix E and made available monthly and<br>annually in OM & M reports. No changes have been made to the report<br>to address this comment.                                                          |
| 29. | Table 11                               | Please add system and pumping information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ATP data are provided in Appendix E and made available monthly and<br>annually in OM & M reports. No changes to the report have been made<br>to address this comment.                                                          |
| 30. | Figures 5 and<br>6 (cross<br>sections) | Please expand the description of lithology types to enable differentiation of hydrostratigraphic sequences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A detailed assessment of ESS was not part of the pilot study scope;<br>however, Table 2 has been updated to include USCS soil classifications<br>logged in the field and Figures 5 and 6 include those classifications.        |
|     |                                        | MassDEP Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                |
| 1.  | Section 3.5                            | The results from the pilot test support the conclusion that air<br>sparging is a valid remedial option for evaluation in up-<br>coming feasibility study. While the likely conceptual design<br>outlined in Section 3.5 (a line of equally spaced sparge<br>points spanning the width of the landfill) should be<br>considered, the results from the pilot study also suggest that<br>a range of sparge point configurations should be considered<br>to develop an optimal design. For example, using an<br>irregular arrangement of sparge points targeting deep<br>portions of the aquifer with high arsenic concentrations with<br>more closely spaced sparge points than shallower areas with<br>lower arsenic concentrations, or using a combination of<br>technologies such as groundwater extraction targeting the<br>deep portions of the aquifer that are less amenable to sparge<br>treatment and a sparge system targeting shallow portions of<br>the aquifer and plume fringe areas. Phased implementation<br>may also be advantageous; a preliminary design could be<br>implemented with sufficient capacity to allow additional | The Army agrees with this assessment and the advantages of an<br>adaptive design and implementation approach should a full-scale system<br>be employed. No changes to the report have been made to address this<br>comment.    |



| No. | Ref.<br>Page / Para. | COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RESPONSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                      | points to be installed where initial performance is inadequate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2.  | Section 3.6          | Successful control of landfill-impacted groundwater depends<br>on knowing where treatment is needed; so a detailed<br>understanding of the distribution of arsenic in the aquifer<br>located adjacent to the north end of the landfill is<br>necessary. A review of the current understanding (e.g.,<br>Figure 25 in the <i>Phase I Subtask 1.g Tech Memo</i> ) indicates<br>that significant data gaps remain, including: (1) the lateral<br>limits of the arsenic plume have not been determined, (2) the<br>bedrock topography is not known east and west of existing<br>wells and borings (where are the narrowest limits of the<br>bedrock valley that bounds the north end of the landfill?), (3)<br>the path by which groundwater with high arsenic<br>concentrations reaches EPA-PZ-2012-07B is not known<br>(does landfill-impacted groundwater by-pass the extraction<br>wells to the west or through underlying bedrock?), and (4)<br>low arsenic concentrations reported in groundwater samples<br>collected from monitoring well SHP-05-46A/B (e.g., <i>Work</i><br><i>Plan</i> , Figure 3) suggest that a region of relatively low arsenic<br>concentrations may exist southeast of the extraction<br>wells. Consequently, MassDEP recommends that future<br>testing and evaluation also include vertical profiling to close<br>these data gaps. Potentially, such characterization could be<br>conducted as sparge points are installed to simultaneously<br>optimize locations. | The Army agrees that a more complete understanding of the distribution<br>of arsenic and geochemical characterization of the aquifer in potential<br>treatment areas may be required to successfully implement a full-scale<br>IAS system at SHL. The extent would depend upon the remedial action<br>objective(s). Additional data collection and site characterization would<br>be included in line with the developed remedial objectives as part of<br>full-scale system design and implementation if IAS were to be<br>implemented at full-scale. No changes to the report have been made to<br>address this comment. |
|     |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|     |                      | END OF COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |