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To: [Environmental Compliance ENV:EX](#); marty@chholdings.ca
Subject: SPO MO1701-Status Update March 15, 2018
Date: Thursday, March 15, 2018 10:20:27 PM
Attachments: [Feb 2018-CHH SUBMITTAL-Ground Water Quality DATA-CLOSURE PLAN.pdf](#)
[Feb 2018-CHH SUBMITTAL-Surface Water Quality DATA-CLOSURE PLAN.pdf](#)
[March 15, 2018 CHH Progress Report.pdf](#)
[COA_CHH FEB 2018.pdf](#)
[COA_CHH FEB 2018.xlsx](#)

- ***Please find information regarding the Leachate reporting requirements for the March 15, 2018 reporting period as per SPILL PREVENTION ORDER : MO1701 Section 1d***

Total Leachate Collected= 9.45 m³
Total Leachate Stored= 46.94 m³
Total Leachate Transported= 0 m³

- ***Sampling was conducted on Feb 27, 2018 as per Section 6biii of File 311372 August 11, 2017 letter. COA's and tabulated data are attached.***

Sampling Summary:

1. SHA-SW1
2. SHA-SW2 (No Flow)
3. MW6
4. MW3
5. MW2
6. SHA-LE-1
7. SHA-LD-1 (Dry Conditions)
8. SB-1
9. SB-2
10. SB-3

- ***Attached is the QP Progress Report for March 15, 2018 as per File 311372 August 11, 2017 letter.***

Thank you

Table GW1: Analytical Results for Nutrients in Groundwater

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07
			MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
Date Sampled	Aquatic Life	Drinking Water	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
Physical Tests									
Colour, True (TCU)	-	-	<5.0	<5.0	5.4	7.2	<5.0	<5.0	11
Conductivity (uS/cm)	-	-	1390	345	250	291	87	436	88.8
Hardness (as CaCO3) mg/L	-	-	599	145	103	130	34	175	35.3
pH (pH Units)	-	-	7.19	7.62	7.66	7.71	7.12	7.09	6.97
Total Suspended Solids mg/L			14.7	14	8.2	15.5	104	133	226
Total Dissolved Solids mg/L	-	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	13.1	8.33	4.5	15.1	88.1	138	216
Anions and Nutrients mg/L									
Alkalinity, Total (as CaCO3)	-	-	637	125	102	123	21.4	138	20.5
Chloride (Cl)	1500	250	39.2	13.1	2.55	6.6	4.07	26.7	3.32
Fluoride (F)	2 (H < 50)	1.5					0.3		0.2
	3 (H ≥ 50)		0.18	0.64	0.14	0.31		0.15	
Nitrate (as N)	400	10	0.093	0.082	<0.010	<0.010	0.114	0.221	0.111
Nitrite (as N) ⁽²⁾ Cl <2 mg/L	0.2	3.2							
Cl 2 - <4 mg/L	0.4				<0.010				<0.010
Cl 4 - <6 mg/L	0.6						<0.010		
Cl 6 - <8 mg/L	0.8					<0.010			
Cl 8 - <10 mg/L	1								
Cl ≥ 10 mg/L	2		0.032	<0.010				<0.010	
Sulfate (SO4)	1000	500	94.3	38.3	22.7	18.1	16	46.2	17.9

Notes: Refer to Table Endnotes (attached)

Table GW2: Analytical Results for Total Metals in Groundwater

Sample Location		CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths				47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID				8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07
Date Sampled	Aquatic Life	Drinking Water		MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
Physical Tests mg/L				2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
Hardness (as CaCO3)	-	-		599	145	103	130	34	175	35.3
Total Metals mg/L										
Aluminum (Al)-Total	-	-		0.507	0.129	0.0712	0.432	6.21	8.95	13.2
Antimony (Sb)-Total	-	-		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00026
Arsenic (As)-Total	-	-		0.00303	0.00099	0.00123	0.00192	0.00067	0.00084	0.00206
Barium (Ba)-Total	-	-		0.0904	0.0358	0.0202	0.033	0.0327	0.0476	0.0618
Beryllium (Be)-Total	-	-		<0.00010	<0.00010	<0.00010	<0.00010	0.00013	0.00022	0.00023
Bismuth (Bi)-Total	-	-		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Boron (B)-Total	-	-		0.0912	0.0245	0.026	0.0256	0.0064	0.0213	0.0103
Cadmium (Cd)-Total	-	-		0.000167	0.000247	0.000099	0.000024	0.000026	0.000023	0.000045
Calcium (Ca)-Total	-	-		190	50.4	33.4	42.5	14.9	68.6	16.7
Chromium (Cr)-Total	-	-		0.00092	<0.00050	<0.00050	0.00124	0.00683	0.00775	0.0229
Cobalt (Co)-Total	-	-		0.00222	0.00092	0.00039	0.00064	0.00611	0.00603	0.0106
Copper (Cu)-Total	-	-		0.00351	0.00063	<0.00040	0.00069	0.0158	0.0246	0.0345
Iron (Fe)-Total	-	-		1.61	0.157	0.125	0.841	6.42	9.1	14
Lead (Pb)-Total	-	-		0.00106	<0.00020	<0.00020	0.00041	0.00692	0.00286	0.00728
Lithium (Li)-Total	-	-		0.0154	0.00025	0.00016	0.0002	0.00211	0.00289	0.00702
Magnesium (Mg)-Total	-	-		37.8	7.49	5.42	7.6	3.06	10.8	6.58
Manganese (Mn)-Total	-	-		2.25	0.416	0.295	0.482	0.196	0.351	0.256
Mercury (Hg)-Total	-	-		0.000012	<0.000010	<0.000010	<0.000010	0.00002	<0.000010	0.000016
Molybdenum (Mo)-Total	-	-		0.00101	0.00629	0.00664	0.00437	0.00039	0.00099	0.00052
Nickel (Ni)-Total	-	-		0.00527	0.00163	0.00145	0.00157	0.00664	0.00721	0.0202
Phosphorus (P)-Total	-	-		<0.050	0.061	0.088	0.161	0.131	0.218	0.256
Potassium (K)-Total	-	-		4.4	0.93	0.6	0.71	0.62	2.41	1.41
Selenium (Se)-Total	-	-		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Total	-	-		12.1	6.7	6.2	7.5	10.4	20.3	24.1
Silver (Ag)-Total	-	-		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	-	-		69.7	14	11	9.68	2.09	19.4	3.19
Strontium (Sr)-Total	-	-		0.597	0.23	0.184	0.166	0.0365	0.198	0.0517
Sulfur (S)-Total	-	-		29.2	14.5	6.8	5.8	4.9	15.3	5.6
Tellurium (Te)-Total	-	-		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Total	-	-		0.000076	0.000032	<0.000020	<0.000020	<0.000020	0.000033	0.000057
Thorium (Th)-Total	-	-		0.00012	0.00016	0.00013	<0.00010	0.00017	0.00034	0.00059
Tin (Sn)-Total	-	-		0.00075	<0.00020	<0.00020	<0.00020	0.00052	0.00051	0.00054
Titanium (Ti)-Total	-	-		0.023	<0.0050	<0.0050	0.026	0.283	0.46	0.644
Uranium (U)-Total	-	-		0.00868	0.00117	0.000701	0.0009	0.000338	0.00121	0.000519
Vanadium (V)-Total	-	-		0.0011	<0.0010	<0.0010	0.0019	0.0158	0.0186	0.0326
Zinc (Zn)-Total	-	-		0.007	<0.0040	<0.0040	<0.0040	0.0165	0.0206	0.0408
Zirconium (Zr)-Total	-	-		0.0004	0.00019	0.00016	0.00017	0.0032	0.00138	0.00332

Notes: Refer to Table Endnotes (attached)

Table GW3: Analytical Results for Dissolved Metals in Groundwater

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID			8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07
			MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
Date Sampled	Aquatic Life	Drinking Water	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
Physical Tests mg/L			599	145	103	130	34	175	35.3
Hardness (as CaCO3)	-	-	<0.0050	<0.0050	<0.0050	<0.0050	0.0076	<0.0050	0.0109
Dissolved Metals mg/L			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Aluminum (Al)-Dissolved	-	9.5	0.0029	0.00096	0.00125	0.00196	<0.00050	<0.00050	<0.00050
Antimony (Sb)-Dissolved	0.2	0.006	0.0858	0.0279	0.0208	0.0313	<0.00050	0.0057	<0.00050
Arsenic (As)-Dissolved	0.05	0.01	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Barium (Ba)-Dissolved	10	1	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Beryllium (Be)-Dissolved	0.053	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	-	-	0.0783	0.0197	0.0223	0.0221	<0.0050	0.0156	0.0057
Boron (B)-Dissolved	50	5					<0.000010		<0.000010
Cadmium (Cd)-Dissolved	0.0001 (H<30)	0.005							
	0.0003 (H<30 <90)								
	0.0005 (H<90 <150)		0.000013	<0.000010	<0.000010				
	0.0006 (H<150 <210)		<0.000010				<0.000010		
Calcium (Ca)-Dissolved	-	-	179	46.4	32.5	39.8	12	57.5	11.4
Chromium (Cr)-Dissolved	0.01	0.05	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Colbalt (Co)-Dissolved	0.04	-	0.00186	0.00078	0.00036	0.00039	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	0.02 (H<50)	1					<0.00040		0.00055
	0.03 (H<50 <75)								
	0.04 (H<75 <100)								
	0.05 (H<100 <125)				<0.00040				
	0.06 (H<125 <150)		<0.00040		<0.00040				
	0.07 (H<150 <175)								
	0.08 (H<175 <200)						0.00069		
	0.09 (H<200)		<0.00040						
Iron (Fe)-Dissolved	0.04 (H<50)	6.5	0.968	0.033	0.088	0.242	<0.010	<0.010	0.014
Lead (Pb)-Dissolved	0.05 (H<50 <100)	0.01					<0.00020		<0.00020
	0.06 (H<100 <200)								
	0.11 (H<200 <300)		<0.00020	<0.00020	<0.00020		<0.00020		
	0.16 (H<300)		<0.00020						
Lithium (Li)-Dissolved	-	-	0.0149	0.0001	<0.00010	<0.00010	<0.00010	0.00011	<0.00010
Magnesium (Mg)-Dissolved	-	100	36.7	7.02	5.4	7.31	0.983	7.7	1.68
Manganese (Mn)-Dissolved	-	0.55	2.1	0.374	0.285	0.449	0.00057	0.00507	0.00128
Mercury (Hg)-Dissolved	0.001	0.001	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040
Molybdenum (Mo)-Dissolved	10	0.25	0.00074	0.00613	0.00668	0.00421	0.00031	0.00064	0.00032
Nickel (Ni)-Dissolved	0.25 (H<60)	-					0.00056		<0.00040
	0.65 (H<60 <120)				0.00131				
	1.1 (H<120 <180)			0.00129		0.00089		<0.00040	
	1.5 (H<180)		0.00405						
Phosphorus(P)-Dissolved	-	-	<0.050	<0.050	0.078	0.132	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	-	-	4.22	0.86	0.61	0.7	0.12	1.01	0.16
Selenium (Se)-Dissolved	0.01	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Dissolved	-	-	11	6	6.2	6.7	1	4.4	1.2
Silver (Ag)-Dissolved	0.0005 (H<100)	-					<0.00050		<0.00050
Sodium (Na)-Dissolved	0.015 (H<100)	200	<0.000050	<0.000050	<0.000050	<0.000050		<0.000050	
	-		67.4	13.1	10.9	9.53	1.67	17.3	2.02
Strontium (Sr)-Dissolved	-	-	0.597	0.224	0.19	0.168	0.0261	0.172	0.0249
Sulfur (S)-Dissolved	-	-	25.8	12.9	7.8	6.7	5.5	14.2	5.7
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Dissolved	0.003	-	<0.000020	0.000024	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Thorium (Th)-Dissolved	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	-	-	0.00022	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Dissolved	1	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (U)-Dissolved	3	0.02	0.00867	0.00107	0.000677	0.00089	0.000039	0.000823	0.000059
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	0.075 (H<90)	5					<0.0040		<0.0040
	0.150 (H<90 <100)								
	0.900 (H<100 <200)			<0.0040	<0.0040	<0.0040		<0.0040	
	1.650 (H<200 <300)		<0.0040						
Zirconium (Zr)-Dissolved	2.4 (H<300 <400)	-							
	-		0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Notes: Refer to Table Endnotes (attached)

Table GW4: Analytical Results for Hydrocarbons and PAHs in Groundwater

Sample Location		CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	SB3
As-built Well Depths				47m	23m	46m	43m	4.01m	3.28m	3.53m
Sample ID				8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07
Date Sampled		Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2	SB3
Hydrocarbons ug/L				2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
EPH10-19	5000	5000		<250	<250	<250	<250	<250	<250	<250
EPH10-19 (SG)	5000	5000								
EPH19-32	-	-		<250	<250	<250	<250	<250	<250	<250
EPH19-32 (SG)	-	-								
LEPH	500	-		<250	<250	<250	<250	<250	<250	<250
HEPH	-	-		<250	<250	<250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons ug/L										
Acenaphthene	60	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	-	-		<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Acridine	0.5	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	1	-		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benz(a)anthracene	1	-		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.014
Benzo(a)pyrene	0.1	0.01		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(b)fluoranthene	-	-		-	-	-	-	-	-	-
Benzo(b+g)fluoranthene	-	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	-	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Chloronaphthalene				<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Chrysene	1	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	-	-		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Fluoranthene	2	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Fluorene	120	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	-	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1-Methylnaphthalene				<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
2-Methylnaphthalene				<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Naphthalene	10	-		<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Phenanthrene	3	-		<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Pyrene	0.2	-		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Quinoline	34	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Analytical Results for Groundwater

All concentrations in mg/L, except pH or as indicated.

"<" less than the laboratory detection limit indicated.

"_" means not analyzed or no standard or guideline applies.

* RPDs are not normally calculated where one or more concentrations are less than five times MDL.

(1) A compendium of CSR Schedules 6 and 10 guidelines with respect to Drinking Water (DW) and Freshwater Aquatic Life (AW).

(2) Standard is dissolved Chloride-dependent.

BOLD, UNDERLINE

Laboratory Detection Limit exceeds one or more applicable Standard

BLUE SHADING

Concentration greater than CSR Aquatic Life (AW) Standard

BOLD, BEIGE TEXT

Concentration greater than CSR Drinking Water (DW) Standard

Table 1: Analytical Results for Nutrients in Surface Water			SHA-LE-1	SHA-SW-1	FIELD BLANK
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8022048-08	8022048-09	8022048-10
Sample ID			LE-1	SW1	FB
Date Sampled/Time			2018-02-27	2018-02-27	2018-02-27
Physical Tests					
Colour, True (Colour Units)	15 TCU	15 ⁽¹⁾ units absolute, or 5 units above background (30-day average)	<5.0	<5.0	<5.0
Total Dissolved Solids (mg/L)	-	-	-	-	-
Total Suspended Solids (mg/L)	-	25 mg/L above background (24-hr during clear flow)	<2.0	<2.0	<2.0
pH	7-10.5	6.5-9	7.28	7.63	5.43
Conductivity (uS/cm)	-	-	9300	312	<2.0
Hardness (as CaCO3)	-	-	2520	135	<0.500
Turbidity (NTU)	Δ1 NTU	8 NTU above background (24-hr during clear flow)	1.58	1.25	0.99
	5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters	Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters			
Anions and Nutrients mg/L					
Alkalinity Total (as CaCO3)	<10 high sensitivity to acid inputs		60.6	82.2	<1.0
Acid Sensitivity	10-20 moderate sensitivity to acid inputs		Low	Low	High
	>20 low sensitivity to acid inputs				
Chloride (Cl)	250 mg/L	600 mg/L (instant max), 150 mg/L (30-day average)	2540	11	<0.10
Fluoride (F)	1.5 mg/L (instant max) 1.0 mg/L (30-day average)	0.4 (Hardness <10mg/L)	<1.00	<0.10	<0.10
		Hardness-Dependent AW (Hardness is >10mg/L) ⁽¹⁾	0.28	0.30	0.16
Nitrate (as N)	45 mg/L	32.8 mg/L (instant maximum) 3.0 mg/L (30-day average)	1.3	0.387	<0.010
Nitrite (as N) ⁽²⁾	3 mg/L	Cl > 10 mg/L 0.6 mg/L (MAX), 0.2 mg/L (30-day average)	<0.100	<0.010	<0.010
Sulfate (SO4) H 0-30 mg/L	500 mg/L	128 mg/L (30-day average)			<1.0
H 31 - 75 mg/L		218 mg/L (30-day average)		55.9	
H 76 - 180 mg/L		309 mg/L (30-day average)			
H 181 - 250 mg/L		429 mg/L (30-day average)			
H > 250 mg/L		TBD	1450		

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals in Surface Water			SHA-LE-1	SHA-SW-1	FIELD BLANK
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8022048-08	8022048-09	8022048-10
Sample ID			LE-1	SW1	FB
Date Sampled/Time			2018-02-27	2018-02-27	2018-02-27
Physical Tests					
Hardness (as CaCO3) (mg/L)	-	-	2520	135	<0.500
pH	7-10.5	6.5-9	7.28	7.63	5.43
Total Metals (mg/L)					
Aluminum (Al)-Total	0.2	-	0.171	0.0362	<0.0050
Antimony (Sb)-Total	-	-	0.00021	<0.00020	<0.00020
Arsenic (As)-Total	0.01	0.005	<0.00050	<0.00050	<0.00050
Barium (Ba)-Total	-	-	0.0491	0.007	<0.0050
Beryllium (Be)-Total	-	-	<0.00010	<0.00010	<0.00010
Bismuth, total	-	-	<0.00010	<0.00010	<0.00010
Boron (B)-Total	5	1.2	0.231	0.0188	<0.0050
Cadmium (Cd)-Total	-	-	0.000601	<0.000010	<0.000010
Calcium (Ca)-Total	-	-	749	48.3	<0.20
Chromium (Cr)-Total Chromium	-	-	0.00053	<0.00050	<0.00050
Chromium (Cr(III))	-	-	-	<0.00100	-
Chromium (Cr(VI))	-	-	-	<0.0010	-
Cobalt (Co)-Total	-	0.110 (Short Term), 0.004 (Long Term Average)	0.00619	<0.00010	<0.00010
Copper (Cu)-Total	0.5	Hardness-Dependent ⁽¹⁾	0.00312	0.00105	<0.00040
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (instant max)	0.2308	0.0142	-
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (30-d average)	0.1008	0.0054	-
Iron (Fe)-Total	-	1	0.131	0.032	<0.010
Lead (Pb)-Total	0.01	Hardness-Dependent ⁽¹⁾	<0.00020	<0.00020	<0.00020
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (instant max)	4.9649	0.1196	-
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (30-d average)	0.1970	0.0080	-
Lithium (Li)-Total	-	-	0.00037	0.00026	0.00011
Magnesium (Mg)-Total	-	-	200	6.45	<0.010
Manganese (Mn)-Total	-	Hardness Dependent ⁽¹⁾	27.8	0.00787	<0.00020
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (instant max)	28.3	2.0	-
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (30-d average)	11.7	1.2	-
Mercury (Hg)-Total	0.001	0.00002	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Total	0.25	≤1 (instant max) 2 (30-d average)	0.00107	0.00076	<0.00010
Nickel (Ni)-Total	-	0.025 (Hardness-Dependent ⁽¹⁾ BSAWWQG to protect AW at <60mg/L)	0.00708	0.00045	<0.00040
		Calculated Hardness-Dependent ⁽¹⁾ BSAWWQG to protect AW 60mg/L 180 mg/L CaCO3	1.109	0.120	-
Phosphorus(P)-Total	-	-	<0.050	<0.050	<0.050
Potassium (K)-Total	-	-	16.2	0.61	<0.10
Selenium (Se)-Total	0.01	0.002	<0.00050	<0.00050	<0.00050
Silicon (Si)-Total	-	-	5.3	4.1	<1.0
Silver (Ag)-Total	-	HARDNESS <100mg/L 0.0001 (SHORT TERM), 0.00005 (LONG TERM), HARDNESS >100mg/L 0.003 (SHORT TERM), 0.0015 (LONG TERM)	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	-	-	1300	8.4	<0.10
Strontium (Sr)-Total	-	-	3.44	0.119	<0.0010
Sulfur (S)-Total	-	-	568	19.8	<3.0
Tellurium (Te)-Total	-	-	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Total	-	-	0.000047	<0.000020	<0.000020
Thorium (Th)-Total	-	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	-	-	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Total	-	-	<0.0050	<0.0050	<0.0050
Uranium (U)-Total	-	-	0.000397	0.000551	<0.000020
Vanadium (V)-Total	-	-	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	5.0	Hardness >90 mg/L	0.0153	<0.0040	<0.0040
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (instant max)	1.856	0.067	-
		Hardness-Dependent BSAWQG to protect AW ⁽¹⁾ (30-d average)	1.830	0.041	-
Zirconium (Zr)-Total	-	-	<0.00010	<0.00010	<0.00010

Table 3: Analytical Results for Dissolved Metals in Surface Water

Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8022048-08	8022048-09	8022048-10
Sample ID			LE-1	SW1	FB
Date Sampled/Time			2018-02-27	2018-02-27	2018-02-27
Physical Tests					
Hardness (as CaCO3) (mg/L)	-	-	2520	135	<0.500
pH	7-10.5	6.5-9	7.28	7.63	5.43
Dissolved Metals (mg/L)					
Aluminum (Al)-Dissolved	-	0.05 (30-day average where median pH > 6.5) 0.1 (maximum where instantaneous pH > 6.5) *** indicates pH-dependent maximum where instant pH ≤ 6.5	0.02	<0.0050	<0.0050
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (instant max)	0.274	0.521	-
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (30-d Mean)	0.268	0.683	-
Antimony (Sb)-Dissolved	-	-	<0.00020	<0.00020	<0.00020
Arsenic (As)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Barium (Ba)-Dissolved	-	-	0.0467	0.0066	<0.0050
Beryllium (Be)-Dissolved	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	-	-	<0.00010	<0.00010	<0.00010
Boron (B)-Dissolved	-	-	0.2	0.0159	<0.0050
Cadmium (Cd)-Dissolved	-	Hardness-Dependent ⁽³⁾	0.000558	<0.000010	<0.000010
	-	Calculated Hardness-Dependent ⁽³⁾ BCAW/WQG to protect AW (short-term max) $e[1.03 * \ln(Hss) - 5.274]$ ug/L H<455mg/L	Hardness exceeds 455mg/L	0.00080	-
	-	Calculated Hardness-Dependent BCAWQG to protect AW ⁽³⁾ (long-term max) $e[0.736 * \ln(Hss) - 4.943]$ ug/L H<285mg/L	Hardness exceeds 285mg/L	0.00026	-
Calcium (Ca)-Dissolved	-	up to 4, highly sensitive to acid inputs 4 to 8, moderately sensitive over 8 low sensitivity	692	43.8	<0.20
Chromium (Cr)-Dissolved	-	-	Low	Low	High
Cobalt (Co)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Copper (Cu)-Dissolved	-	-	0.00591	<0.00010	<0.00010
Iron (Fe)-Dissolved	-	0.35	0.00263	0.00092	<0.00040
Lead (Pb)-Dissolved	-	-	0.011	<0.010	<0.010
Lithium, dissolved	-	-	<0.00020	<0.00020	<0.00020
Magnesium (Mg)-Dissolved	-	-	0.00025	0.00013	<0.00010
Manganese (Mn)-Dissolved	-	-	192	6.16	<0.010
Mercury (Hg)-Dissolved	-	-	25.5	0.00259	<0.00020
Molybdenum (Mo)-Dissolved	-	-	<0.000040	<0.000040	<0.000040
Nickel (Ni)-Dissolved	-	-	0.00106	0.00072	<0.00010
Phosphorus (P)-Dissolved	-	-	0.00641	<0.00040	<0.00040
Potassium (K)-Dissolved	-	-	<0.050	<0.050	<0.050
Selenium (Se)-Dissolved	-	-	15.9	0.6	<0.10
Silicon (Si)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Silver (Ag)-Dissolved	-	-	5	3.8	<1.0
Sodium (Na)-Dissolved	-	-	<0.000050	<0.000050	<0.000050
Strontium (Sr)-dissolved	-	-	1240	7.79	<0.10
Sulfur (S)-Dissolved	-	-	3.3	0.116	<0.0010
Tellurium (Te)-Dissolved	-	-	510	18.1	<3.0
Thallium (Tl)-Dissolved	-	-	<0.00050	<0.00050	<0.00050
Thorium (Th)-Dissolved	-	-	0.000043	<0.000020	<0.000020
Tin (Sn)-Dissolved	-	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	-	-	<0.00020	<0.00020	<0.00020
Uranium (U)-Dissolved	-	-	<0.0050	<0.0050	<0.0050
Vanadium (V)-Dissolved	-	-	0.000387	0.00052	<0.000020
Zinc (Zn)-Dissolved	-	-	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	-	-	0.0147	<0.0040	<0.0040
			<0.00010	<0.00010	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs in			SHA-LE-1	SHA-SW-1	FIELD BLANK
Laboratory ID	BC DRINKING	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8022048-08	8022048-09	8022048-10
Sample ID			LE-1	SW1	FB
Date Sampled/ Time			2018-02-27	2018-02-27	2018-02-27
Hydrocarbons ug/L					
LEPH	-	-	<250	<250	<250
HEPH	-	-	<250	<250	<250
Polycyclic Aromatic					
Acenaphthene	-	6 (LONG TERM)	<0.050	<0.050	<0.050
Acenaphthylene	-	-	<0.200	<0.200	<0.200
Acridine	-	3 (LONG TERM), 0.05 (PHOTOTOXIC)	<0.050	<0.050	<0.050
Anthracene	-	4 (LONG TERM), 0.1 (PHOTOTOXIC)	<0.010	<0.010	<0.010
Benz(a)anthracene	0.01	0.1 (LONG TERM), 0.1 (PHOTOTOXIC)	<0.010	<0.010	<0.010
Benzo(a)pyrene	-	0.01 (LONG TERM)	<0.010	<0.010	<0.010
Benzo(b)fluoranthene	-	-	-	-	-
Benzo(b+j)fluoranthene	-	-	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	-	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	-	-	<0.050	<0.050	<0.050
2-Chloronaphthalene			<0.100	<0.100	<0.100
Chrysene	-	-	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	-	-	<0.010	<0.010	<0.010
Fluoranthene	-	4 (LONG TERM), 0.2 (PHOTOTOXIC)	<0.030	<0.030	<0.030
Fluorene	-	12 (LONG TERM)	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	-	-	<0.050	<0.050	<0.050
1-Methylnaphthalene			<0.100	<0.100	<0.100
2-Methylnaphthalene			<0.100	<0.100	<0.100
Naphthalene	-	1 (LONG TERM)	<0.200	<0.200	<0.200
Phenanthrene	-	0.3 (LONG TERM)	<0.100	<0.100	<0.100
Pyrene	-	0.02 (PHOTOTOXIC)	<0.020	<0.020	<0.020
Quinoline	-	-	<0.050	<0.050	<0.050

Notes: Refer to Table Endnotes (attached)

Analytical Table Footnotes: Analytical Results for Surface Water

- All concentrations in mg/L, except pH or as indicated.
- "<" less than the laboratory detection limit indicated.
- "-" means not analyzed or no standard or guideline applies.
- * RPDs are not normally calculated where one or more concentrations are less than five times RDL.
- (1) Guideline of 15 mg/L Pt for Drinking Water. Once background levels are established, colour should also not exceed 5 mg/L above background, to protect for Aquatic Life. This is considered a clearwater system (background less than 20 mg/L Pt.)
- (2) Nitrite BCAWWQG Guideline is Chloride dependent
- (3) Standard is calculated based on the hardness dependent BCAWWQG formula, and has been calculated and shown for each individual result
- (4) pH-dependent maximum where instant pH < 6.5

BOLD, UNDERLINE

Laboratory Detection Limit exceeds one or more applicable Standard

BOLD, BLUE SHADING

Concentration greater than BCAWWQG Guideline

BOLD, BEIGE SHADING

Concentration greater than BCAWWQG Chronic Guideline

BOLD, GREEN SHADING

Concentration greater than BC Ministry of Environment Drinking Water Sources

RED FONT

Concentration less than laboratory detection limit (Formula 0.5MRL utilized for statistical analysis)



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: March 14 2018	ISLANDER PROJECT No.: 2087
REPORT No: 16	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Dry, 9 deg C	PAGE: 1 of 3
PROJECT: Cobble Hill Landfill 2017 Minor Construction Works			
TO: CHH	ATTENTION: Marty Block		
CC:			

The field review included the inspection of the following items included in the detailed summary of works section of the *Cobble Hill Landfill — 2017 Minor Construction Works, Detailed Construction Plan (Sperling Hansen Associates, September 13, 2017)*:

- **PEA**
 - Liner appears to be in good condition, with no noticeable changes since the date of our last inspection
- **Leachate and Leak Detention facility**
 - Total leachate collected: = 9.45 m³
 - Total leachate stored = 46.94 m³
 - Total leachate transported = 0 m³
- **Soil Management Area (SMA)**
 - All works are in good condition and no noticeable changes since the date of our last inspection
- **Contact Water Containment Pond**
 - All works are in good condition and no noticeable changes since the date of our last inspection
- **cut-off ditch upland of PEA**
 - All works are in good condition, ditch still performing well.

ISLANDER ENGINEERING LTD.



Mike Achtem, P.Eng



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: March 14, 2018	ISLANDER PROJECT No.: 2087
REPORT No: 16	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Dry 9 deg C	PAGE: 2 of 3



SMA - looking south



SMA – looking north



Contact water containment Pond



Leak and leachate detection works

FIELD REVIEW REPORT	DATE: March 14 2018	ISLANDER PROJECT No.: 2087
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ISLANDER ENGINEERING

REPORT No: 16	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: Dry 9 deg	PAGE: 3 of 3
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PEA – liner near NE corner



PEA– NW corner



Cut-off ditch upland of PEA



PEA north face

CERTIFICATE OF ANALYSIS

REPORTED TO Allterra Construction
2158 Millstream Road
Victoria, BC V9B 6H4

ATTENTION Rahim Gaidhar

PO NUMBER P15-06 SIRM

PROJECT P17-932

PROJECT INFO

WORK ORDER 8022048

RECEIVED / TEMP 2018-02-28 15:55 / 8°C

REPORTED 2018-03-08 15:32

COC NUMBER Feb 2018

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO 17025:2005 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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If you have any questions or concerns, please contact me at bshaw@caro.ca

Authorized By:

Bryan Shaw, Ph.D., P.Chem.
Client Service Coordinator



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#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8022048
2018-03-08 15:32

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8022048-01) Matrix: Water Sampled: 2018-02-27 10:45					
Anions					
Chloride	39.2	0.10	mg/L	2018-03-02	
Fluoride	0.18	0.10	mg/L	2018-03-02	
Nitrate (as N)	0.093	0.010	mg/L	2018-03-02	
Nitrite (as N)	0.032	0.010	mg/L	2018-03-02	
Sulfate	94.3	1.0	mg/L	2018-03-02	
General Parameters					
Alkalinity, Total (as CaCO ₃)	637	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO ₃)	637	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	1390	2.0	µS/cm	2018-03-06	
pH	7.19	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	14.7	2.0	mg/L	2018-03-06	
Turbidity	13.1	0.10	NTU	2018-03-02	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	599	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	0.00290	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0858	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0783	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	179	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	0.00186	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.968	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	0.0149	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	36.7	0.010	mg/L	2018-03-01	
Manganese, dissolved	2.10	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00074	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00405	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8022048
2018-03-08 15:32

Analyte	Result	RL	Units	Analyzed	Qualifier
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MW6 (8022048-01) | Matrix: Water | Sampled: 2018-02-27 10:45, Continued

Dissolved Metals, Continued

Potassium, dissolved	4.22	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	11.0	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	67.4	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.597	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	25.8	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	0.00022	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.00867	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	0.00021	0.00010	mg/L	2018-03-01	

Total Metals

Aluminum, total	0.507	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00303	0.00050	mg/L	2018-03-01	
Barium, total	0.0904	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0912	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000167	0.000010	mg/L	2018-03-01	
Calcium, total	190	0.20	mg/L	2018-03-01	
Chromium, total	0.00092	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00222	0.00010	mg/L	2018-03-01	
Copper, total	0.00351	0.00040	mg/L	2018-03-01	
Iron, total	1.61	0.010	mg/L	2018-03-01	
Lead, total	0.00106	0.00020	mg/L	2018-03-01	
Lithium, total	0.0154	0.00010	mg/L	2018-03-01	
Magnesium, total	37.8	0.010	mg/L	2018-03-01	
Manganese, total	2.25	0.00020	mg/L	2018-03-01	
Mercury, total	0.000012	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00101	0.00010	mg/L	2018-03-01	
Nickel, total	0.00527	0.00040	mg/L	2018-03-01	
Phosphorus, total	< 0.050	0.050	mg/L	2018-03-01	
Potassium, total	4.40	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	12.1	1.0	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8022048-01) Matrix: Water Sampled: 2018-02-27 10:45, Continued					
Total Metals, Continued					
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	69.7	0.10	mg/L	2018-03-01	
Strontium, total	0.597	0.0010	mg/L	2018-03-01	
Sulfur, total	29.2	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	0.000076	0.000020	mg/L	2018-03-01	
Thorium, total	0.00012	0.00010	mg/L	2018-03-01	
Tin, total	0.00075	0.00020	mg/L	2018-03-01	
Titanium, total	0.0230	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.00868	0.000020	mg/L	2018-03-01	
Vanadium, total	0.0011	0.0010	mg/L	2018-03-01	
Zinc, total	0.0070	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00040	0.00010	mg/L	2018-03-01	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	62	60-140	%	2018-03-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW6 (8022048-01) | Matrix: Water | Sampled: 2018-02-27 10:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	122	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	108	50-140	%	2018-03-03	
Surrogate: Perylene-d12	91	50-140	%	2018-03-03	

MW3S (8022048-02) | Matrix: Water | Sampled: 2018-02-27 13:45

Anions

Chloride	13.1	0.10	mg/L	2018-03-02	
Fluoride	0.64	0.10	mg/L	2018-03-02	
Nitrate (as N)	0.082	0.010	mg/L	2018-03-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	38.3	1.0	mg/L	2018-03-02	

General Parameters

Alkalinity, Total (as CaCO3)	125	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	125	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	345	2.0	µS/cm	2018-03-06	
pH	7.62	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	14.0	2.0	mg/L	2018-03-06	
Turbidity	8.33	0.10	NTU	2018-03-02	

Calculated Parameters

Hardness, Total (as CaCO3)	145	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	0.00096	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0279	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0197	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	0.000013	0.000010	mg/L	2018-03-01	
Calcium, dissolved	46.4	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	0.00078	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.033	0.010	mg/L	2018-03-01	

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Analyte	Result	RL	Units	Analyzed	Qualifier
MW3S (8022048-02) Matrix: Water Sampled: 2018-02-27 13:45, Continued					
<i>Dissolved Metals, Continued</i>					
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	7.02	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.374	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00613	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00129	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.86	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	6.0	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	13.1	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.224	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	12.9	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	0.000024	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.00107	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
<i>Total Metals</i>					
Aluminum, total	0.129	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00099	0.00050	mg/L	2018-03-01	
Barium, total	0.0358	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0245	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000247	0.000010	mg/L	2018-03-01	
Calcium, total	50.4	0.20	mg/L	2018-03-01	
Chromium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00092	0.00010	mg/L	2018-03-01	
Copper, total	0.00063	0.00040	mg/L	2018-03-01	
Iron, total	0.157	0.010	mg/L	2018-03-01	
Lead, total	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, total	0.00025	0.00010	mg/L	2018-03-01	
Magnesium, total	7.49	0.010	mg/L	2018-03-01	

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3S (8022048-02) | Matrix: Water | Sampled: 2018-02-27 13:45, Continued

Total Metals, Continued

Manganese, total	0.416	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00629	0.00010	mg/L	2018-03-01	
Nickel, total	0.00163	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.061	0.050	mg/L	2018-03-01	
Potassium, total	0.93	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	6.7	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	14.0	0.10	mg/L	2018-03-01	
Strontium, total	0.230	0.0010	mg/L	2018-03-01	
Sulfur, total	14.5	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	0.000032	0.000020	mg/L	2018-03-01	
Thorium, total	0.00016	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.00117	0.000020	mg/L	2018-03-01	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, total	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00019	0.00010	mg/L	2018-03-01	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	61	60-140	%	2018-03-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	

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MW3S (8022048-02) | Matrix: Water | Sampled: 2018-02-27 13:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	120	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	118	50-140	%	2018-03-03	
Surrogate: Perylene-d12	104	50-140	%	2018-03-03	

MW3D (8022048-03) | Matrix: Water | Sampled: 2018-02-27 14:15

Anions

Chloride	2.55	0.10	mg/L	2018-03-02	
Fluoride	0.14	0.10	mg/L	2018-03-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-03-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	22.7	1.0	mg/L	2018-03-02	

General Parameters

Alkalinity, Total (as CaCO ₃)	102	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO ₃)	102	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	5.4	5.0	CU	2018-03-08	HT1
Conductivity (EC)	250	2.0	µS/cm	2018-03-06	
pH	7.66	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	8.2	2.0	mg/L	2018-03-06	
Turbidity	4.50	0.10	NTU	2018-03-02	

Calculated Parameters

Hardness, Total (as CaCO ₃)	103	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	0.00125	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0208	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3D (8022048-03) | Matrix: Water | Sampled: 2018-02-27 14:15, Continued

Dissolved Metals, Continued

Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0223	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	32.5	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	0.00036	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.088	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	5.40	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.285	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00668	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00131	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	0.078	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.61	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	6.2	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	10.9	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.190	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	7.8	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000677	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

Total Metals

Aluminum, total	0.0712	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00123	0.00050	mg/L	2018-03-01	
Barium, total	0.0203	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0260	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000099	0.000010	mg/L	2018-03-01	

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MW3D (8022048-03) | Matrix: Water | Sampled: 2018-02-27 14:15, Continued

Total Metals, Continued

Calcium, total	33.4	0.20	mg/L	2018-03-01	
Chromium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00039	0.00010	mg/L	2018-03-01	
Copper, total	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, total	0.125	0.010	mg/L	2018-03-01	
Lead, total	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, total	0.00016	0.00010	mg/L	2018-03-01	
Magnesium, total	5.42	0.010	mg/L	2018-03-01	
Manganese, total	0.295	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00664	0.00010	mg/L	2018-03-01	
Nickel, total	0.00145	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.088	0.050	mg/L	2018-03-01	
Potassium, total	0.60	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	6.2	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	11.0	0.10	mg/L	2018-03-01	
Strontium, total	0.184	0.0010	mg/L	2018-03-01	
Sulfur, total	6.8	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, total	0.00013	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000701	0.000020	mg/L	2018-03-01	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, total	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00016	0.00010	mg/L	2018-03-01	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	60	60-140	%	2018-03-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8022048
2018-03-08 15:32

Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3D (8022048-03) | Matrix: Water | Sampled: 2018-02-27 14:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	113	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	98	50-140	%	2018-03-03	
Surrogate: Perylene-d12	91	50-140	%	2018-03-03	

MW2 (8022048-04) | Matrix: Water | Sampled: 2018-02-27 15:00

Anions

Chloride	6.60	0.10	mg/L	2018-03-02	
Fluoride	0.31	0.10	mg/L	2018-03-02	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-03-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	18.1	1.0	mg/L	2018-03-02	

General Parameters

Alkalinity, Total (as CaCO3)	123	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	123	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	7.2	5.0	CU	2018-03-08	HT1
Conductivity (EC)	291	2.0	µS/cm	2018-03-06	
pH	7.71	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	15.5	2.0	mg/L	2018-03-06	
Turbidity	15.1	0.10	NTU	2018-03-02	

Calculated Parameters

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
MW2 (8022048-04) Matrix: Water Sampled: 2018-02-27 15:00, Continued					
Calculated Parameters, Continued					
Hardness, Total (as CaCO3)	130	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	0.00196	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0313	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0221	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	39.8	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	0.00039	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.242	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	7.31	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.449	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00421	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00089	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	0.132	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.70	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	6.7	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	9.53	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.168	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	6.7	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000890	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

Total Metals

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW2 (8022048-04) | Matrix: Water | Sampled: 2018-02-27 15:00, Continued

Total Metals, Continued

Aluminum, total	0.432	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00192	0.00050	mg/L	2018-03-01	
Barium, total	0.0330	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0256	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000024	0.000010	mg/L	2018-03-01	
Calcium, total	42.5	0.20	mg/L	2018-03-01	
Chromium, total	0.00124	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00064	0.00010	mg/L	2018-03-01	
Copper, total	0.00069	0.00040	mg/L	2018-03-01	
Iron, total	0.841	0.010	mg/L	2018-03-01	
Lead, total	0.00041	0.00020	mg/L	2018-03-01	
Lithium, total	0.00020	0.00010	mg/L	2018-03-01	
Magnesium, total	7.60	0.010	mg/L	2018-03-01	
Manganese, total	0.482	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00437	0.00010	mg/L	2018-03-01	
Nickel, total	0.00157	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.161	0.050	mg/L	2018-03-01	
Potassium, total	0.71	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	7.5	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	9.68	0.10	mg/L	2018-03-01	
Strontium, total	0.166	0.0010	mg/L	2018-03-01	
Sulfur, total	5.8	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	0.0260	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000900	0.000020	mg/L	2018-03-01	
Vanadium, total	0.0019	0.0010	mg/L	2018-03-01	
Zinc, total	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00017	0.00010	mg/L	2018-03-01	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW2 (8022048-04) | Matrix: Water | Sampled: 2018-02-27 15:00, Continued

BCMOE Aggregate Hydrocarbons, Continued

HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	64	60-140	%	2018-03-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	111	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	102	50-140	%	2018-03-03	
Surrogate: Perylene-d12	86	50-140	%	2018-03-03	

SB1 (8022048-05) | Matrix: Water | Sampled: 2018-02-27 13:00

Anions

Chloride	4.07	0.10	mg/L	2018-03-02	
Fluoride	0.30	0.10	mg/L	2018-03-02	
Nitrate (as N)	0.114	0.010	mg/L	2018-03-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	16.0	1.0	mg/L	2018-03-02	

General Parameters

Alkalinity, Total (as CaCO3)	21.4	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	21.4	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8022048-05) Matrix: Water Sampled: 2018-02-27 13:00, Continued					
General Parameters, Continued					
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	87.0	2.0	µS/cm	2018-03-06	
pH	7.12	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	104	2.0	mg/L	2018-03-06	
Turbidity	88.1	0.10	NTU	2018-03-02	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	34.0	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	0.0076	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	12.0	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	< 0.010	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	0.983	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.00057	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00031	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00056	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.12	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	1.0	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	1.67	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.0261	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	5.5	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8022048-05) Matrix: Water Sampled: 2018-02-27 13:00, Continued					
<i>Dissolved Metals, Continued</i>					
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000039	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
<i>Total Metals</i>					
Aluminum, total	6.21	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00067	0.00050	mg/L	2018-03-01	
Barium, total	0.0327	0.0050	mg/L	2018-03-01	
Beryllium, total	0.00013	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0064	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000026	0.000010	mg/L	2018-03-01	
Calcium, total	14.9	0.20	mg/L	2018-03-01	
Chromium, total	0.00683	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00611	0.00010	mg/L	2018-03-01	
Copper, total	0.0158	0.00040	mg/L	2018-03-01	
Iron, total	6.42	0.010	mg/L	2018-03-01	
Lead, total	0.00692	0.00020	mg/L	2018-03-01	
Lithium, total	0.00211	0.00010	mg/L	2018-03-01	
Magnesium, total	3.06	0.010	mg/L	2018-03-01	
Manganese, total	0.196	0.00020	mg/L	2018-03-01	
Mercury, total	0.000020	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00039	0.00010	mg/L	2018-03-01	
Nickel, total	0.00664	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.131	0.050	mg/L	2018-03-01	
Potassium, total	0.62	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	10.4	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	2.09	0.10	mg/L	2018-03-01	
Strontium, total	0.0365	0.0010	mg/L	2018-03-01	
Sulfur, total	4.9	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, total	0.00017	0.00010	mg/L	2018-03-01	
Tin, total	0.00052	0.00020	mg/L	2018-03-01	
Titanium, total	0.283	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000338	0.000020	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8022048-05) Matrix: Water Sampled: 2018-02-27 13:00, Continued					
Total Metals, Continued					
Vanadium, total	0.0158	0.0010	mg/L	2018-03-01	
Zinc, total	0.0165	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00320	0.00010	mg/L	2018-03-01	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	67	60-140	%	2018-03-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	94	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	104	50-140	%	2018-03-03	
Surrogate: Perylene-d12	98	50-140	%	2018-03-03	

SB2 (8022048-06) | Matrix: Water | Sampled: 2018-02-27 12:15

Anions

Chloride	26.7	0.10	mg/L	2018-03-06	
Fluoride	0.15	0.10	mg/L	2018-03-06	
Nitrate (as N)	0.221	0.010	mg/L	2018-03-02	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8022048
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Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8022048-06) Matrix: Water Sampled: 2018-02-27 12:15, Continued					
Anions, Continued					
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	46.2	1.0	mg/L	2018-03-06	
General Parameters					
Alkalinity, Total (as CaCO ₃)	138	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO ₃)	138	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	436	2.0	µS/cm	2018-03-06	
pH	7.09	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	133	2.0	mg/L	2018-03-06	
Turbidity	138	0.10	NTU	2018-03-02	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	175	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0057	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0156	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	57.5	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, dissolved	0.00069	0.00040	mg/L	2018-03-01	
Iron, dissolved	< 0.010	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	0.00011	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	7.70	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.00507	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00064	0.00010	mg/L	2018-03-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	1.01	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	4.4	1.0	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
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SB2 (8022048-06) | Matrix: Water | Sampled: 2018-02-27 12:15, Continued

Dissolved Metals, Continued

Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	17.3	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.172	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	14.2	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000823	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

Total Metals

Aluminum, total	8.95	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00084	0.00050	mg/L	2018-03-01	
Barium, total	0.0476	0.0050	mg/L	2018-03-01	
Beryllium, total	0.00022	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0213	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000023	0.000010	mg/L	2018-03-01	
Calcium, total	68.6	0.20	mg/L	2018-03-01	
Chromium, total	0.00775	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00603	0.00010	mg/L	2018-03-01	
Copper, total	0.0246	0.00040	mg/L	2018-03-01	
Iron, total	9.10	0.010	mg/L	2018-03-01	
Lead, total	0.00286	0.00020	mg/L	2018-03-01	
Lithium, total	0.00289	0.00010	mg/L	2018-03-01	
Magnesium, total	10.8	0.010	mg/L	2018-03-01	
Manganese, total	0.351	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00099	0.00010	mg/L	2018-03-01	
Nickel, total	0.00721	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.218	0.050	mg/L	2018-03-01	
Potassium, total	2.41	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	20.3	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	19.4	0.10	mg/L	2018-03-01	
Strontium, total	0.198	0.0010	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8022048-06) Matrix: Water Sampled: 2018-02-27 12:15, Continued					
Total Metals, Continued					
Sulfur, total	15.3	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	0.000033	0.000020	mg/L	2018-03-01	
Thorium, total	0.00034	0.00010	mg/L	2018-03-01	
Tin, total	0.00051	0.00020	mg/L	2018-03-01	
Titanium, total	0.460	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.00121	0.000020	mg/L	2018-03-01	
Vanadium, total	0.0186	0.0010	mg/L	2018-03-01	
Zinc, total	0.0206	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00138	0.00010	mg/L	2018-03-01	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	66	60-140	%	2018-03-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	99	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	103	50-140	%	2018-03-03	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
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SB2 (8022048-06) | Matrix: Water | Sampled: 2018-02-27 12:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Surrogate: Perylene-d12	109	50-140	%	2018-03-03	
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SB3 (8022048-07) | Matrix: Water | Sampled: 2018-02-27 11:30

Anions

Chloride	3.32	0.10	mg/L	2018-03-06	
Fluoride	0.20	0.10	mg/L	2018-03-06	
Nitrate (as N)	0.111	0.010	mg/L	2018-03-02	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-02	
Sulfate	17.9	1.0	mg/L	2018-03-04	

General Parameters

Alkalinity, Total (as CaCO3)	20.5	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	20.5	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	11	5.0	CU	2018-03-08	HT1
Conductivity (EC)	88.8	2.0	µS/cm	2018-03-06	
pH	6.97	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	226	2.0	mg/L	2018-03-06	
Turbidity	216	0.10	NTU	2018-03-02	

Calculated Parameters

Hardness, Total (as CaCO3)	35.3	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	0.0109	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0057	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	11.4	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, dissolved	0.00055	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.014	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	1.68	0.010	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
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SB3 (8022048-07) | Matrix: Water | Sampled: 2018-02-27 11:30, Continued

Dissolved Metals, Continued

Manganese, dissolved	0.00128	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00032	0.00010	mg/L	2018-03-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.16	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	1.2	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	2.02	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.0249	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	5.7	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000059	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

Total Metals

Aluminum, total	13.2	0.0050	mg/L	2018-03-01	
Antimony, total	0.00026	0.00020	mg/L	2018-03-01	
Arsenic, total	0.00206	0.00050	mg/L	2018-03-01	
Barium, total	0.0618	0.0050	mg/L	2018-03-01	
Beryllium, total	0.00023	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0103	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000045	0.000010	mg/L	2018-03-01	
Calcium, total	16.7	0.20	mg/L	2018-03-01	
Chromium, total	0.0229	0.00050	mg/L	2018-03-01	
Cobalt, total	0.0106	0.00010	mg/L	2018-03-01	
Copper, total	0.0345	0.00040	mg/L	2018-03-01	
Iron, total	14.0	0.010	mg/L	2018-03-01	
Lead, total	0.00728	0.00020	mg/L	2018-03-01	
Lithium, total	0.00702	0.00010	mg/L	2018-03-01	
Magnesium, total	6.58	0.010	mg/L	2018-03-01	
Manganese, total	0.256	0.00020	mg/L	2018-03-01	
Mercury, total	0.000016	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00052	0.00010	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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SB3 (8022048-07) | Matrix: Water | Sampled: 2018-02-27 11:30, Continued

Total Metals, Continued

Nickel, total	0.0202	0.00040	mg/L	2018-03-01	
Phosphorus, total	0.256	0.050	mg/L	2018-03-01	
Potassium, total	1.41	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	24.1	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	3.19	0.10	mg/L	2018-03-01	
Strontium, total	0.0517	0.0010	mg/L	2018-03-01	
Sulfur, total	5.6	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	0.000057	0.000020	mg/L	2018-03-01	
Thorium, total	0.00059	0.00010	mg/L	2018-03-01	
Tin, total	0.00054	0.00020	mg/L	2018-03-01	
Titanium, total	0.644	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000519	0.000020	mg/L	2018-03-01	
Vanadium, total	0.0326	0.0010	mg/L	2018-03-01	
Zinc, total	0.0408	0.0040	mg/L	2018-03-01	
Zirconium, total	0.00332	0.00010	mg/L	2018-03-01	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	61	60-140	%	2018-03-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	0.014	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	

TEST RESULTS

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SB3 (8022048-07) | Matrix: Water | Sampled: 2018-02-27 11:30, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	88	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	106	50-140	%	2018-03-03	
Surrogate: Perylene-d12	87	50-140	%	2018-03-03	

LE-1 (8022048-08) | Matrix: Water | Sampled: 2018-02-27 15:45

Anions

Chloride	2540	0.10	mg/L	2018-03-04	
Fluoride	< 1.00	0.10	mg/L	2018-03-04	RA1
Nitrate (as N)	1.30	0.010	mg/L	2018-03-04	HT1
Nitrite (as N)	< 0.100	0.010	mg/L	2018-03-04	HT1, RA1
Sulfate	1450	1.0	mg/L	2018-03-04	

General Parameters

Alkalinity, Total (as CaCO3)	60.6	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	60.6	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	9300	2.0	µS/cm	2018-03-06	
pH	7.28	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-03-06	
Turbidity	1.58	0.10	NTU	2018-03-02	

Calculated Parameters

Hardness, Total (as CaCO3)	2520	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	0.0200	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0467	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.200	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	0.000558	0.000010	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

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2018-03-08 15:32

Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8022048-08) | Matrix: Water | Sampled: 2018-02-27 15:45, Continued

Dissolved Metals, Continued

Calcium, dissolved	692	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	0.00591	0.00010	mg/L	2018-03-01	
Copper, dissolved	0.00263	0.00040	mg/L	2018-03-01	
Iron, dissolved	0.011	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	0.00025	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	192	0.010	mg/L	2018-03-01	
Manganese, dissolved	25.5	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00106	0.00010	mg/L	2018-03-01	
Nickel, dissolved	0.00641	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	15.9	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	5.0	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	1240	0.10	mg/L	2018-03-01	
Strontium, dissolved	3.30	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	510	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	0.000043	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000387	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	0.0147	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	

Total Metals

Aluminum, total	0.171	0.0050	mg/L	2018-03-01	
Antimony, total	0.00021	0.00020	mg/L	2018-03-01	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, total	0.0491	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.231	0.0050	mg/L	2018-03-01	
Cadmium, total	0.000601	0.000010	mg/L	2018-03-01	
Calcium, total	749	0.20	mg/L	2018-03-01	
Chromium, total	0.00053	0.00050	mg/L	2018-03-01	
Cobalt, total	0.00619	0.00010	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8022048-08) | Matrix: Water | Sampled: 2018-02-27 15:45, Continued

Total Metals, Continued

Copper, total	0.00312	0.00040	mg/L	2018-03-01	
Iron, total	0.131	0.010	mg/L	2018-03-01	
Lead, total	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, total	0.00037	0.00010	mg/L	2018-03-01	
Magnesium, total	200	0.010	mg/L	2018-03-01	
Manganese, total	27.8	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00107	0.00010	mg/L	2018-03-01	
Nickel, total	0.00708	0.00040	mg/L	2018-03-01	
Phosphorus, total	< 0.050	0.050	mg/L	2018-03-01	
Potassium, total	16.2	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	5.3	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	1300	0.10	mg/L	2018-03-01	
Strontium, total	3.44	0.0010	mg/L	2018-03-01	
Sulfur, total	568	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	0.000047	0.000020	mg/L	2018-03-01	
Thorium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000397	0.000020	mg/L	2018-03-01	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, total	0.0153	0.0040	mg/L	2018-03-01	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-03-01	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	62	60-140	%	2018-03-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	

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Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8022048-08) Matrix: Water Sampled: 2018-02-27 15:45, Continued					
<i>Polycyclic Aromatic Hydrocarbons (PAH), Continued</i>					
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	23	50-140	%	2018-03-03	S02
Surrogate: Naphthalene-d8	96	50-140	%	2018-03-03	
Surrogate: Perylene-d12	91	50-140	%	2018-03-03	

SW1 (8022048-09) | Matrix: Water | Sampled: 2018-02-27 14:45

Anions

Chloride	11.0	0.10	mg/L	2018-03-04	
Fluoride	< 0.10	0.10	mg/L	2018-03-04	
Nitrate (as N)	0.387	0.010	mg/L	2018-03-04	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-04	HT1
Sulfate	55.9	1.0	mg/L	2018-03-04	

General Parameters

Alkalinity, Total (as CaCO3)	82.2	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	82.2	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Chromium, Hexavalent	< 0.0010	0.0010	mg/L	2018-03-07	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	312	2.0	µS/cm	2018-03-06	
pH	7.63	0.10	pH units	2018-03-06	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-03-06	
Turbidity	1.25	0.10	NTU	2018-03-02	

Calculated Parameters

Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO3)	135	0.500	mg/L	N/A	

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Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8022048-09) Matrix: Water Sampled: 2018-02-27 14:45, Continued					
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	0.0066	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	0.0159	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	43.8	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, dissolved	0.00092	0.00040	mg/L	2018-03-01	
Iron, dissolved	< 0.010	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	0.00013	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	6.16	0.010	mg/L	2018-03-01	
Manganese, dissolved	0.00259	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	0.00072	0.00010	mg/L	2018-03-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	0.60	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	3.8	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	7.79	0.10	mg/L	2018-03-01	
Strontium, dissolved	0.116	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	18.1	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	0.000520	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Total Metals					
Aluminum, total	0.0362	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8022048-09) Matrix: Water Sampled: 2018-02-27 14:45, Continued					
Total Metals, Continued					
Barium, total	0.0070	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	0.0188	0.0050	mg/L	2018-03-01	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, total	48.3	0.20	mg/L	2018-03-01	
Chromium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, total	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, total	0.00105	0.00040	mg/L	2018-03-01	
Iron, total	0.032	0.010	mg/L	2018-03-01	
Lead, total	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, total	0.00026	0.00010	mg/L	2018-03-01	
Magnesium, total	6.45	0.010	mg/L	2018-03-01	
Manganese, total	0.00787	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	0.00076	0.00010	mg/L	2018-03-01	
Nickel, total	0.00045	0.00040	mg/L	2018-03-01	
Phosphorus, total	< 0.050	0.050	mg/L	2018-03-01	
Potassium, total	0.61	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	4.1	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	8.40	0.10	mg/L	2018-03-01	
Strontium, total	0.119	0.0010	mg/L	2018-03-01	
Sulfur, total	19.8	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	0.000551	0.000020	mg/L	2018-03-01	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, total	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-03-01	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	66	60-140	%	2018-03-02	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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SW1 (8022048-09) | Matrix: Water | Sampled: 2018-02-27 14:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	108	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	124	50-140	%	2018-03-03	
Surrogate: Perylene-d12	87	50-140	%	2018-03-03	

FB (8022048-10) | Matrix: Water | Sampled: 2018-02-27 10:30

Anions

Chloride	< 0.10	0.10	mg/L	2018-03-04	
Fluoride	< 0.10	0.10	mg/L	2018-03-04	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-03-04	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2018-03-04	HT1
Sulfate	< 1.0	1.0	mg/L	2018-03-04	

General Parameters

Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-03-04	
Colour, True	< 5.0	5.0	CU	2018-03-08	HT1
Conductivity (EC)	< 2.0	2.0	µS/cm	2018-03-06	
pH	5.43	0.10	pH units	2018-03-06	HT2

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
FB (8022048-10) Matrix: Water Sampled: 2018-02-27 10:30, Continued					
General Parameters, Continued					
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-03-06	
Turbidity	0.99	0.10	NTU	2018-03-02	
Calculated Parameters					
Hardness, Total (as CaCO3)	< 0.500	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, dissolved	< 0.20	0.20	mg/L	2018-03-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, dissolved	< 0.010	0.010	mg/L	2018-03-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Magnesium, dissolved	< 0.010	0.010	mg/L	2018-03-01	
Manganese, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2018-03-01	
Molybdenum, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2018-03-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-03-01	
Potassium, dissolved	< 0.10	0.10	mg/L	2018-03-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, dissolved	< 1.0	1.0	mg/L	2018-03-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, dissolved	< 0.10	0.10	mg/L	2018-03-01	
Strontium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Sulfur, dissolved	< 3.0	3.0	mg/L	2018-03-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, dissolved	< 0.000020	0.000020	mg/L	2018-03-01	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-03-01	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
FB (8022048-10) Matrix: Water Sampled: 2018-02-27 10:30, Continued					
<i>Dissolved Metals, Continued</i>					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-03-01	
<i>Total Metals</i>					
Aluminum, total	< 0.0050	0.0050	mg/L	2018-03-01	
Antimony, total	< 0.00020	0.00020	mg/L	2018-03-01	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-03-01	
Barium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-03-01	
Boron, total	< 0.0050	0.0050	mg/L	2018-03-01	
Cadmium, total	< 0.000010	0.000010	mg/L	2018-03-01	
Calcium, total	< 0.20	0.20	mg/L	2018-03-01	
Chromium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Cobalt, total	< 0.00010	0.00010	mg/L	2018-03-01	
Copper, total	< 0.00040	0.00040	mg/L	2018-03-01	
Iron, total	< 0.010	0.010	mg/L	2018-03-01	
Lead, total	< 0.00020	0.00020	mg/L	2018-03-01	
Lithium, total	0.00011	0.00010	mg/L	2018-03-01	
Magnesium, total	< 0.010	0.010	mg/L	2018-03-01	
Manganese, total	< 0.00020	0.00020	mg/L	2018-03-01	
Mercury, total	< 0.000010	0.000010	mg/L	2018-03-06	
Molybdenum, total	< 0.00010	0.00010	mg/L	2018-03-01	
Nickel, total	< 0.00040	0.00040	mg/L	2018-03-01	
Phosphorus, total	< 0.050	0.050	mg/L	2018-03-01	
Potassium, total	< 0.10	0.10	mg/L	2018-03-01	
Selenium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Silicon, total	< 1.0	1.0	mg/L	2018-03-01	
Silver, total	< 0.000050	0.000050	mg/L	2018-03-01	
Sodium, total	< 0.10	0.10	mg/L	2018-03-01	
Strontium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Sulfur, total	< 3.0	3.0	mg/L	2018-03-01	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-03-01	
Thallium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Thorium, total	< 0.00010	0.00010	mg/L	2018-03-01	
Tin, total	< 0.00020	0.00020	mg/L	2018-03-01	
Titanium, total	< 0.0050	0.0050	mg/L	2018-03-01	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-03-01	
Uranium, total	< 0.000020	0.000020	mg/L	2018-03-01	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-03-01	
Zinc, total	< 0.0040	0.0040	mg/L	2018-03-01	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-03-01	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
FB (8022048-10) Matrix: Water Sampled: 2018-02-27 10:30, Continued					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-03-02	
EPHw19-32	< 250	250	µg/L	2018-03-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	67	60-140	%	2018-03-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-03-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-03-03	
Acridine	< 0.050	0.050	µg/L	2018-03-03	
Anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-03-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-03-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-03-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Chrysene	< 0.050	0.050	µg/L	2018-03-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-03-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-03-03	
Fluorene	< 0.050	0.050	µg/L	2018-03-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-03-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-03-03	
Naphthalene	< 0.200	0.200	µg/L	2018-03-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-03-03	
Pyrene	< 0.020	0.020	µg/L	2018-03-03	
Quinoline	< 0.050	0.050	µg/L	2018-03-03	
Surrogate: Acridine-d9	102	50-140	%	2018-03-03	
Surrogate: Naphthalene-d8	133	50-140	%	2018-03-03	
Surrogate: Perylene-d12	116	50-140	%	2018-03-03	

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
RA1	The Reporting Limit has been raised due to matrix interference.
S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Allterra Construction
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Analysis Description	Method Ref.	Technique	Location
Alkalinity in Water	SM 2320 B* (2011)	Titration with H ₂ SO ₄	Kelowna
Anions in Water	SM 4110 B (2011)	Ion Chromatography	Kelowna
Chromium, Hexavalent in Water	SM 3500-Cr B (2011)	Spectrophotometry	Richmond
Colour, True in Water	SM 2120 C (2011)	Spectrophotometry (456 nm)	Kelowna
Conductivity in Water	SM 2510 B (2011)	Conductivity Meter	Richmond
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	Richmond
Hardness in Water	SM 2340 B (2011)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation	N/A
Mercury, total in Water	EPA 245.7*	BrCl ₂ Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
pH in Water	SM 4500-H+ B (2011)	Electrometry	Richmond
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	Richmond
Solids, Total Suspended in Water	SM 2540 D* (2011)	Gravimetry (Dried at 103-105C)	Richmond
Total Metals in Water	EPA 200.2* / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Turbidity in Water	SM 2130 B (2011)	Nephelometry	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CU	Colour Units (referenced against a platinum cobalt standard)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, pH > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

APPENDIX 2: QUALITY CONTROL RESULTS

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (BLK):** A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup):** An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS):** A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS):** A second aliquot of sample is fortified with with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM):** A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Anions, Batch B8C0167

Blank (B8C0167-BLK1)			Prepared: 2018-03-03, Analyzed: 2018-03-03						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							

LCS (B8C0167-BS1)			Prepared: 2018-03-03, Analyzed: 2018-03-03						
Chloride	16.2	0.10 mg/L	16.0		101	90-110			
Fluoride	3.98	0.10 mg/L	4.00		100	88-108			
Nitrate (as N)	4.04	0.010 mg/L	4.00		101	93-108			
Nitrite (as N)	2.06	0.010 mg/L	2.00		103	85-114			
Sulfate	16.3	1.0 mg/L	16.0		102	91-109			

BCMOE Aggregate Hydrocarbons, Batch B8C0065

Blank (B8C0065-BLK1)			Prepared: 2018-03-01, Analyzed: 2018-03-02						
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	279	µg/L	442		63	60-140			

LCS (B8C0065-BS2)			Prepared: 2018-03-01, Analyzed: 2018-03-02						
EPHw10-19	12900	250 µg/L	15400		83	70-130			
EPHw19-32	17500	250 µg/L	22200		79	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	271	µg/L	442		61	60-140			

Dissolved Metals, Batch B8C0025

Blank (B8C0025-BLK1)			Prepared: 2018-03-01, Analyzed: 2018-03-01						
Aluminum, dissolved	< 0.0050	0.0050 mg/L							
Antimony, dissolved	< 0.00020	0.00020 mg/L							
Arsenic, dissolved	< 0.00050	0.00050 mg/L							
Barium, dissolved	< 0.0050	0.0050 mg/L							
Beryllium, dissolved	< 0.00010	0.00010 mg/L							
Bismuth, dissolved	< 0.00010	0.00010 mg/L							
Boron, dissolved	< 0.0050	0.0050 mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Dissolved Metals, Batch B8C0025, Continued

Blank (B8C0025-BLK1), Continued

Prepared: 2018-03-01, Analyzed: 2018-03-01

Cadmium, dissolved	< 0.000010	0.000010 mg/L							
Calcium, dissolved	< 0.20	0.20 mg/L							
Chromium, dissolved	< 0.00050	0.00050 mg/L							
Cobalt, dissolved	< 0.00010	0.00010 mg/L							
Copper, dissolved	< 0.00040	0.00040 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.00020	0.00020 mg/L							
Lithium, dissolved	< 0.00010	0.00010 mg/L							
Magnesium, dissolved	< 0.010	0.010 mg/L							
Manganese, dissolved	< 0.00020	0.00020 mg/L							
Mercury, dissolved	< 0.000040	0.000040 mg/L							
Molybdenum, dissolved	< 0.00010	0.00010 mg/L							
Nickel, dissolved	< 0.00040	0.00040 mg/L							
Phosphorus, dissolved	< 0.050	0.050 mg/L							
Potassium, dissolved	< 0.10	0.10 mg/L							
Selenium, dissolved	< 0.00050	0.00050 mg/L							
Silicon, dissolved	< 1.0	1.0 mg/L							
Silver, dissolved	< 0.000050	0.000050 mg/L							
Sodium, dissolved	< 0.10	0.10 mg/L							
Strontium, dissolved	< 0.0010	0.0010 mg/L							
Sulfur, dissolved	< 3.0	3.0 mg/L							
Tellurium, dissolved	< 0.00050	0.00050 mg/L							
Thallium, dissolved	< 0.000020	0.000020 mg/L							
Thorium, dissolved	< 0.00010	0.00010 mg/L							
Tin, dissolved	< 0.00020	0.00020 mg/L							
Titanium, dissolved	< 0.0050	0.0050 mg/L							
Tungsten, dissolved	< 0.0010	0.0010 mg/L							
Uranium, dissolved	< 0.000020	0.000020 mg/L							
Vanadium, dissolved	< 0.0010	0.0010 mg/L							
Zinc, dissolved	< 0.0040	0.0040 mg/L							
Zirconium, dissolved	< 0.00010	0.00010 mg/L							

LCS (B8C0025-BS1)

Prepared: 2018-03-01, Analyzed: 2018-03-01

Aluminum, dissolved	0.0208	0.0050 mg/L	0.0200	104	80-120
Antimony, dissolved	0.0186	0.00020 mg/L	0.0200	93	80-120
Arsenic, dissolved	0.0186	0.00050 mg/L	0.0200	93	80-120
Barium, dissolved	0.0192	0.0050 mg/L	0.0200	96	80-120
Beryllium, dissolved	0.0202	0.00010 mg/L	0.0200	101	80-120
Bismuth, dissolved	0.0210	0.00010 mg/L	0.0200	105	80-120
Boron, dissolved	0.0201	0.0050 mg/L	0.0200	101	80-120
Cadmium, dissolved	0.0197	0.000010 mg/L	0.0200	98	80-120
Calcium, dissolved	1.96	0.20 mg/L	2.00	98	80-120
Chromium, dissolved	0.0183	0.00050 mg/L	0.0200	92	80-120
Cobalt, dissolved	0.0188	0.00010 mg/L	0.0200	94	80-120
Copper, dissolved	0.0199	0.00040 mg/L	0.0200	100	80-120
Iron, dissolved	1.87	0.010 mg/L	2.00	93	80-120
Lead, dissolved	0.0209	0.00020 mg/L	0.0200	104	80-120
Lithium, dissolved	0.0212	0.00010 mg/L	0.0200	106	80-120
Magnesium, dissolved	1.99	0.010 mg/L	2.00	99	80-120
Manganese, dissolved	0.0182	0.00020 mg/L	0.0200	91	80-120
Mercury, dissolved	0.000813	0.000040 mg/L	0.00100	81	80-120
Molybdenum, dissolved	0.0190	0.00010 mg/L	0.0200	95	80-120
Nickel, dissolved	0.0191	0.00040 mg/L	0.0200	96	80-120
Phosphorus, dissolved	1.88	0.050 mg/L	2.00	94	80-120
Potassium, dissolved	1.86	0.10 mg/L	2.00	93	80-120
Selenium, dissolved	0.0208	0.00050 mg/L	0.0200	104	80-120

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8C0025, Continued									
LCS (B8C0025-BS1), Continued				Prepared: 2018-03-01, Analyzed: 2018-03-01					
Silicon, dissolved	1.9	1.0 mg/L	2.00		93	80-120			
Silver, dissolved	0.0195	0.000050 mg/L	0.0200		97	80-120			
Sodium, dissolved	2.02	0.10 mg/L	2.00		101	80-120			
Strontium, dissolved	0.0182	0.0010 mg/L	0.0200		91	80-120			
Sulfur, dissolved	4.4	3.0 mg/L	5.00		88	80-120			
Tellurium, dissolved	0.0193	0.00050 mg/L	0.0200		96	80-120			
Thallium, dissolved	0.0207	0.000020 mg/L	0.0200		103	80-120			
Thorium, dissolved	0.0202	0.00010 mg/L	0.0200		101	80-120			
Tin, dissolved	0.0197	0.00020 mg/L	0.0200		99	80-120			
Titanium, dissolved	0.0186	0.0050 mg/L	0.0200		93	80-120			
Tungsten, dissolved	0.0189	0.0010 mg/L	0.0200		95	80-120			
Uranium, dissolved	0.0221	0.000020 mg/L	0.0200		111	80-120			
Vanadium, dissolved	0.0176	0.0010 mg/L	0.0200		88	80-120			
Zinc, dissolved	0.0211	0.0040 mg/L	0.0200		105	80-120			
Zirconium, dissolved	0.0200	0.00010 mg/L	0.0200		100	80-120			
Duplicate (B8C0025-DUP1)				Source: 8022048-01	Prepared: 2018-03-01, Analyzed: 2018-03-01				
Aluminum, dissolved	< 0.0050	0.0050 mg/L		< 0.0050				11	
Antimony, dissolved	< 0.00020	0.00020 mg/L		< 0.00020				20	
Arsenic, dissolved	0.00315	0.00050 mg/L		0.00290			8	8	
Barium, dissolved	0.0891	0.0050 mg/L		0.0858			4	7	
Beryllium, dissolved	< 0.00010	0.00010 mg/L		< 0.00010				14	
Bismuth, dissolved	< 0.00010	0.00010 mg/L		< 0.00010				20	
Boron, dissolved	0.0782	0.0050 mg/L		0.0783			< 1	13	
Cadmium, dissolved	< 0.000010	0.000010 mg/L		< 0.000010				20	
Calcium, dissolved	182	0.20 mg/L		179			2	8	
Chromium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050				14	
Cobalt, dissolved	0.00191	0.00010 mg/L		0.00186			2	10	
Copper, dissolved	< 0.00040	0.00040 mg/L		< 0.00040				20	
Iron, dissolved	1.01	0.010 mg/L		0.968			4	14	
Lead, dissolved	< 0.00020	0.00020 mg/L		< 0.00020				20	
Lithium, dissolved	0.0152	0.00010 mg/L		0.0149			2	14	
Magnesium, dissolved	38.0	0.010 mg/L		36.7			4	6	
Manganese, dissolved	2.18	0.00020 mg/L		2.10			4	9	
Mercury, dissolved	< 0.000040	0.000040 mg/L		< 0.000040				20	
Molybdenum, dissolved	0.00081	0.00010 mg/L		0.00074			10	19	
Nickel, dissolved	0.00418	0.00040 mg/L		0.00405			3	20	
Phosphorus, dissolved	< 0.050	0.050 mg/L		< 0.050				14	
Potassium, dissolved	4.43	0.10 mg/L		4.22			5	8	
Selenium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, dissolved	11.5	1.0 mg/L		11.0			4	12	
Silver, dissolved	< 0.000050	0.000050 mg/L		< 0.000050				20	
Sodium, dissolved	69.8	0.10 mg/L		67.4			3	6	
Strontium, dissolved	0.620	0.0010 mg/L		0.597			4	6	
Sulfur, dissolved	27.1	3.0 mg/L		25.8			5	20	
Tellurium, dissolved	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020 mg/L		< 0.000020				13	
Thorium, dissolved	< 0.00010	0.00010 mg/L		< 0.00010				20	
Tin, dissolved	0.00024	0.00020 mg/L		0.00022				20	
Titanium, dissolved	< 0.0050	0.0050 mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, dissolved	0.00871	0.000020 mg/L		0.00867			< 1	14	
Vanadium, dissolved	< 0.0010	0.0010 mg/L		< 0.0010				20	
Zinc, dissolved	< 0.0040	0.0040 mg/L		< 0.0040				11	
Zirconium, dissolved	0.00021	0.00010 mg/L		0.00021				20	

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8C0025, Continued									
Reference (B8C0025-SRM1)				Prepared: 2018-03-01, Analyzed: 2018-03-01					
Aluminum, dissolved	0.224	0.0050 mg/L	0.233		96	79-114			
Antimony, dissolved	0.0455	0.00020 mg/L	0.0430		106	89-123			
Arsenic, dissolved	0.426	0.00050 mg/L	0.438		97	87-113			
Barium, dissolved	3.34	0.0050 mg/L	3.35		100	85-114			
Beryllium, dissolved	0.223	0.00010 mg/L	0.213		105	79-122			
Boron, dissolved	1.55	0.0050 mg/L	1.74		89	79-117			
Cadmium, dissolved	0.223	0.000010 mg/L	0.224		100	89-112			
Calcium, dissolved	7.54	0.20 mg/L	7.69		98	85-120			
Chromium, dissolved	0.413	0.00050 mg/L	0.437		95	87-113			
Cobalt, dissolved	0.126	0.00010 mg/L	0.128		98	90-117			
Copper, dissolved	0.841	0.00040 mg/L	0.844		100	90-115			
Iron, dissolved	1.20	0.010 mg/L	1.29		93	86-112			
Lead, dissolved	0.116	0.00020 mg/L	0.112		104	90-113			
Lithium, dissolved	0.112	0.00010 mg/L	0.104		108	77-127			
Magnesium, dissolved	6.82	0.010 mg/L	6.92		99	84-116			
Manganese, dissolved	0.322	0.00020 mg/L	0.345		93	85-113			
Molybdenum, dissolved	0.421	0.00010 mg/L	0.426		99	87-112			
Nickel, dissolved	0.823	0.00040 mg/L	0.840		98	90-114			
Phosphorus, dissolved	0.458	0.050 mg/L	0.495		93	74-119			
Potassium, dissolved	2.93	0.10 mg/L	3.19		92	78-119			
Selenium, dissolved	0.0345	0.00050 mg/L	0.0331		104	89-123			
Sodium, dissolved	18.4	0.10 mg/L	19.1		96	81-117			
Strontium, dissolved	0.861	0.0010 mg/L	0.916		94	82-111			
Thallium, dissolved	0.0405	0.000020 mg/L	0.0393		103	90-113			
Uranium, dissolved	0.263	0.000020 mg/L	0.266		99	87-113			
Vanadium, dissolved	0.804	0.0010 mg/L	0.869		93	85-110			
Zinc, dissolved	0.870	0.0040 mg/L	0.881		99	88-114			

General Parameters, Batch B8C0137

Blank (B8C0137-BLK1)			Prepared: 2018-03-02, Analyzed: 2018-03-02						
Turbidity	< 0.10	0.10 NTU							
Duplicate (B8C0137-DUP1)			Source: 8022048-08		Prepared: 2018-03-02, Analyzed: 2018-03-02				
Turbidity	1.60	0.10 NTU		1.58			1	18	

General Parameters, Batch B8C0240

Blank (B8C0240-BLK1)			Prepared: 2018-03-05, Analyzed: 2018-03-05						
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Blank (B8C0240-BLK2)			Prepared: 2018-03-04, Analyzed: 2018-03-04						
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Blank (B8C0240-BLK3)			Prepared: 2018-03-05, Analyzed: 2018-03-05						
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B8C0240, Continued									
Blank (B8C0240-BLK3), Continued				Prepared: 2018-03-05, Analyzed: 2018-03-05					
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
LCS (B8C0240-BS1)				Prepared: 2018-03-04, Analyzed: 2018-03-04					
Alkalinity, Total (as CaCO ₃)	101	1.0 mg/L	100		101	92-106			
LCS (B8C0240-BS3)				Prepared: 2018-03-04, Analyzed: 2018-03-04					
Alkalinity, Total (as CaCO ₃)	101	1.0 mg/L	100		101	92-106			
LCS (B8C0240-BS5)				Prepared: 2018-03-05, Analyzed: 2018-03-05					
Alkalinity, Total (as CaCO ₃)	9.7	1.0 mg/L	10.0		97	92-106			
LCS (B8C0240-BS7)				Prepared: 2018-03-05, Analyzed: 2018-03-05					
Alkalinity, Total (as CaCO ₃)	9.7	1.0 mg/L	10.0		97	92-106			
General Parameters, Batch B8C0323									
Blank (B8C0323-BLK1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
Solids, Total Suspended	< 2.0	2.0 mg/L							
LCS (B8C0323-BS1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
Solids, Total Suspended	95.0	10.0 mg/L	100		95	83-107			
Duplicate (B8C0323-DUP1)				Source: 8022048-06		Prepared: 2018-03-06, Analyzed: 2018-03-06			
Solids, Total Suspended	132	2.0 mg/L		133			< 1	20	
General Parameters, Batch B8C0365									
Blank (B8C0365-BLK1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B8C0365-BS1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
Conductivity (EC)	148	2.0 µS/cm	147		101	90-110			
Reference (B8C0365-SRM1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
Conductivity (EC)	1020	2.0 µS/cm	1000		102	95-105			
General Parameters, Batch B8C0368									
Reference (B8C0368-SRM1)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
pH	7.89	0.10 pH units	8.00		99	97.5-102.5			
Reference (B8C0368-SRM2)				Prepared: 2018-03-06, Analyzed: 2018-03-06					
pH	7.92	0.10 pH units	8.00		99	97.5-102.5			
General Parameters, Batch B8C0505									
Blank (B8C0505-BLK1)				Prepared: 2018-03-08, Analyzed: 2018-03-08					
Colour, True	< 5.0	5.0 CU							
LCS (B8C0505-BS1)				Prepared: 2018-03-08, Analyzed: 2018-03-08					
Colour, True	10	5.0 CU	10.0		104	85-115			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B8C0515									
Blank (B8C0515-BLK1)				Prepared: 2018-03-07, Analyzed: 2018-03-07					
Chromium, Hexavalent	< 0.0010	0.0010 mg/L							
LCS (B8C0515-BS1)				Prepared: 2018-03-07, Analyzed: 2018-03-07					
Chromium, Hexavalent	0.0956	0.0010 mg/L	0.100		96	90-111			
Duplicate (B8C0515-DUP1)				Source: 8022048-09		Prepared: 2018-03-07, Analyzed: 2018-03-07			
Chromium, Hexavalent	< 0.0010	0.0010 mg/L		< 0.0010			7		
Matrix Spike (B8C0515-MS1)				Source: 8022048-09		Prepared: 2018-03-07, Analyzed: 2018-03-07			
Chromium, Hexavalent	0.0905	0.0010 mg/L	0.100	< 0.0010	90	70-116			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8C0065									
Blank (B8C0065-BLK1)				Prepared: 2018-03-01, Analyzed: 2018-03-02					
Acenaphthene	< 0.050	0.050 µg/L							
Acenaphthylene	< 0.200	0.200 µg/L							
Acridine	< 0.050	0.050 µg/L							
Anthracene	< 0.010	0.010 µg/L							
Benz(a)anthracene	< 0.010	0.010 µg/L							
Benzo(a)pyrene	< 0.010	0.010 µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050 µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050 µg/L							
Benzo(k)fluoranthene	< 0.050	0.050 µg/L							
2-Chloronaphthalene	< 0.100	0.100 µg/L							
Chrysene	< 0.050	0.050 µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010 µg/L							
Fluoranthene	< 0.030	0.030 µg/L							
Fluorene	< 0.050	0.050 µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050 µg/L							
1-Methylnaphthalene	< 0.100	0.100 µg/L							
2-Methylnaphthalene	< 0.100	0.100 µg/L							
Naphthalene	< 0.200	0.200 µg/L							
Phenanthrene	< 0.100	0.100 µg/L							
Pyrene	< 0.020	0.020 µg/L							
Quinoline	< 0.050	0.050 µg/L							
Surrogate: Acridine-d9	5.26	µg/L	4.44		118	50-140			
Surrogate: Naphthalene-d8	4.62	µg/L	4.44		104	50-140			
Surrogate: Perylene-d12	4.64	µg/L	4.44		104	50-140			
LCS (B8C0065-BS1)				Prepared: 2018-03-01, Analyzed: 2018-03-02					
Acenaphthene	4.47	0.050 µg/L	4.40		102	58-125			
Acenaphthylene	3.70	0.200 µg/L	4.40		84	54-128			
Acridine	3.46	0.050 µg/L	4.44		78	50-112			
Anthracene	3.90	0.010 µg/L	4.44		88	66-125			
Benz(a)anthracene	5.11	0.010 µg/L	4.44		115	59-123			
Benzo(a)pyrene	4.30	0.010 µg/L	4.40		98	62-116			
Benzo(b+j)fluoranthene	8.74	0.050 µg/L	8.89		98	69-121			
Benzo(g,h,i)perylene	2.67	0.050 µg/L	4.40		61	58-129			
Benzo(k)fluoranthene	4.69	0.050 µg/L	4.44		106	67-128			
2-Chloronaphthalene	3.48	0.100 µg/L	4.44		78	50-140			
Chrysene	4.98	0.050 µg/L	4.42		113	58-125			
Dibenz(a,h)anthracene	2.68	0.010 µg/L	4.42		61	58-126			
Fluoranthene	4.17	0.030 µg/L	4.36		96	67-133			
Fluorene	3.88	0.050 µg/L	4.40		88	55-122			
Indeno(1,2,3-cd)pyrene	2.76	0.050 µg/L	4.44		62	62-126			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8C0065, Continued									
LCS (B8C0065-BS1), Continued					Prepared: 2018-03-01, Analyzed: 2018-03-02				
1-Methylnaphthalene	3.70	0.100 µg/L	4.38		85	53-125			
2-Methylnaphthalene	3.50	0.100 µg/L	4.36		80	52-122			
Naphthalene	3.84	0.200 µg/L	4.44		86	50-130			
Phenanthrene	4.01	0.100 µg/L	4.40		91	67-127			
Pyrene	4.23	0.020 µg/L	4.44		95	68-133			
Quinoline	4.49	0.050 µg/L	4.44		101	51-140			
Surrogate: Acridine-d9	5.52	µg/L	4.44		124	50-140			
Surrogate: Naphthalene-d8	4.02	µg/L	4.44		90	50-140			
Surrogate: Perylene-d12	4.56	µg/L	4.44		102	50-140			
LCS Dup (B8C0065-BSD1)					Prepared: 2018-03-01, Analyzed: 2018-03-02				
Acenaphthene	4.21	0.050 µg/L	4.40		96	58-125	6	16	
Acenaphthylene	3.92	0.200 µg/L	4.40		89	54-128	6	16	
Acridine	3.14	0.050 µg/L	4.44		71	50-112	10	26	
Anthracene	3.93	0.010 µg/L	4.44		88	66-125	< 1	14	
Benz(a)anthracene	5.45	0.010 µg/L	4.44		123	59-123	7	23	
Benzo(a)pyrene	4.33	0.010 µg/L	4.40		98	62-116	< 1	16	
Benzo(b+j)fluoranthene	8.25	0.050 µg/L	8.89		93	69-121	6	14	
Benzo(g,h,i)perylene	2.49	0.050 µg/L	4.40		57	58-129	7	25	SPK1
Benzo(k)fluoranthene	4.43	0.050 µg/L	4.44		100	67-128	6	18	
2-Chloronaphthalene	3.54	0.100 µg/L	4.44		80	50-140	2	30	
Chrysene	5.09	0.050 µg/L	4.42		115	58-125	2	24	
Dibenz(a,h)anthracene	2.53	0.010 µg/L	4.42		57	58-126	6	23	SPK1
Fluoranthene	4.03	0.030 µg/L	4.36		93	67-133	3	18	
Fluorene	3.82	0.050 µg/L	4.40		87	55-122	2	16	
Indeno(1,2,3-cd)pyrene	2.67	0.050 µg/L	4.44		60	62-126	3	22	SPK1
1-Methylnaphthalene	3.95	0.100 µg/L	4.38		90	53-125	6	16	
2-Methylnaphthalene	3.75	0.100 µg/L	4.36		86	52-122	7	17	
Naphthalene	4.26	0.200 µg/L	4.44		96	50-130	10	18	
Phenanthrene	4.00	0.100 µg/L	4.40		91	67-127	< 1	14	
Pyrene	4.01	0.020 µg/L	4.44		90	68-133	5	18	
Quinoline	4.54	0.050 µg/L	4.44		102	51-140	1	12	
Surrogate: Acridine-d9	4.75	µg/L	4.44		107	50-140			
Surrogate: Naphthalene-d8	4.36	µg/L	4.44		98	50-140			
Surrogate: Perylene-d12	4.83	µg/L	4.44		109	50-140			

Total Metals, Batch B8C0024

Blank (B8C0024-BLK1)			Prepared: 2018-03-01, Analyzed: 2018-03-01						
Aluminum, total	< 0.0050	0.0050 mg/L							
Antimony, total	< 0.00020	0.00020 mg/L							
Arsenic, total	< 0.00050	0.00050 mg/L							
Barium, total	< 0.0050	0.0050 mg/L							
Beryllium, total	< 0.00010	0.00010 mg/L							
Bismuth, total	< 0.00010	0.00010 mg/L							
Boron, total	< 0.0050	0.0050 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Cobalt, total	< 0.00010	0.00010 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Lithium, total	< 0.00010	0.00010 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8C0024, Continued									
Blank (B8C0024-BLK1), Continued					Prepared: 2018-03-01, Analyzed: 2018-03-01				
Manganese, total	< 0.00020	0.00020 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Phosphorus, total	< 0.050	0.050 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Silicon, total	< 1.0	1.0 mg/L							
Silver, total	< 0.000050	0.000050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Sulfur, total	< 3.0	3.0 mg/L							
Tellurium, total	< 0.00050	0.00050 mg/L							
Thallium, total	< 0.000020	0.000020 mg/L							
Thorium, total	< 0.00010	0.00010 mg/L							
Tin, total	< 0.00020	0.00020 mg/L							
Titanium, total	< 0.0050	0.0050 mg/L							
Tungsten, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Vanadium, total	< 0.0010	0.0010 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
Zirconium, total	< 0.00010	0.00010 mg/L							
LCS (B8C0024-BS1)					Prepared: 2018-03-01, Analyzed: 2018-03-01				
Aluminum, total	0.0226	0.0050 mg/L	0.0200		113	80-120			
Antimony, total	0.0216	0.00020 mg/L	0.0200		108	80-120			
Arsenic, total	0.0200	0.00050 mg/L	0.0200		100	80-120			
Barium, total	0.0205	0.0050 mg/L	0.0200		102	80-120			
Beryllium, total	0.0216	0.00010 mg/L	0.0200		108	80-120			
Bismuth, total	0.0224	0.00010 mg/L	0.0200		112	80-120			
Boron, total	0.0230	0.0050 mg/L	0.0200		115	80-120			
Cadmium, total	0.0210	0.000010 mg/L	0.0200		105	80-120			
Calcium, total	2.24	0.20 mg/L	2.00		112	80-120			
Chromium, total	0.0196	0.00050 mg/L	0.0200		98	80-120			
Cobalt, total	0.0202	0.00010 mg/L	0.0200		101	80-120			
Copper, total	0.0213	0.00040 mg/L	0.0200		106	80-120			
Iron, total	2.00	0.010 mg/L	2.00		100	80-120			
Lead, total	0.0223	0.00020 mg/L	0.0200		112	80-120			
Lithium, total	0.0223	0.00010 mg/L	0.0200		112	80-120			
Magnesium, total	2.15	0.010 mg/L	2.00		108	80-120			
Manganese, total	0.0206	0.00020 mg/L	0.0200		103	80-120			
Molybdenum, total	0.0205	0.00010 mg/L	0.0200		102	80-120			
Nickel, total	0.0205	0.00040 mg/L	0.0200		103	80-120			
Phosphorus, total	1.97	0.050 mg/L	2.00		99	80-120			
Potassium, total	2.02	0.10 mg/L	2.00		101	80-120			
Selenium, total	0.0219	0.00050 mg/L	0.0200		110	80-120			
Silicon, total	2.2	1.0 mg/L	2.00		109	80-120			
Silver, total	0.0203	0.000050 mg/L	0.0200		101	80-120			
Sodium, total	2.22	0.10 mg/L	2.00		111	80-120			
Strontium, total	0.0196	0.0010 mg/L	0.0200		98	80-120			
Sulfur, total	5.1	3.0 mg/L	5.00		102	80-120			
Tellurium, total	0.0200	0.00050 mg/L	0.0200		100	80-120			
Thallium, total	0.0221	0.000020 mg/L	0.0200		110	80-120			
Thorium, total	0.0215	0.00010 mg/L	0.0200		108	80-120			
Tin, total	0.0214	0.00020 mg/L	0.0200		107	80-120			
Titanium, total	0.0197	0.0050 mg/L	0.0200		99	80-120			
Tungsten, total	0.0166	0.0010 mg/L	0.0200		83	80-120			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8C0024, Continued									
LCS (B8C0024-BS1), Continued				Prepared: 2018-03-01, Analyzed: 2018-03-01					
Uranium, total	0.0236	0.000020 mg/L	0.0200		118	80-120			
Vanadium, total	0.0190	0.0010 mg/L	0.0200		95	80-120			
Zinc, total	0.0220	0.0040 mg/L	0.0200		110	80-120			
Zirconium, total	0.0209	0.00010 mg/L	0.0200		105	80-120			
Duplicate (B8C0024-DUP1)				Source: 8022048-01 Prepared: 2018-03-01, Analyzed: 2018-03-01					
Aluminum, total	0.502	0.0050 mg/L		0.507			< 1	20	
Antimony, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Arsenic, total	0.00309	0.00050 mg/L		0.00303			2	15	
Barium, total	0.0920	0.0050 mg/L		0.0904			2	9	
Beryllium, total	< 0.00010	0.00010 mg/L		< 0.00010				16	
Bismuth, total	< 0.00010	0.00010 mg/L		< 0.00010				20	
Boron, total	0.0907	0.0050 mg/L		0.0912			< 1	20	
Cadmium, total	0.000161	0.000010 mg/L		0.000167			4	20	
Calcium, total	193	0.20 mg/L		190			2	12	
Chromium, total	0.00103	0.00050 mg/L		0.00092				12	
Cobalt, total	0.00225	0.00010 mg/L		0.00222			1	13	
Copper, total	0.00351	0.00040 mg/L		0.00351			< 1	20	
Iron, total	1.60	0.010 mg/L		1.61			< 1	18	
Lead, total	0.00109	0.00020 mg/L		0.00106			2	20	
Lithium, total	0.0157	0.00010 mg/L		0.0154			2	19	
Magnesium, total	38.4	0.010 mg/L		37.8			1	10	
Manganese, total	2.27	0.00020 mg/L		2.25			< 1	13	
Molybdenum, total	0.00104	0.00010 mg/L		0.00101			3	20	
Nickel, total	0.00548	0.00040 mg/L		0.00527			4	20	
Phosphorus, total	< 0.050	0.050 mg/L		< 0.050				20	
Potassium, total	4.45	0.10 mg/L		4.40			1	13	
Selenium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, total	12.3	1.0 mg/L		12.1			2	11	
Silver, total	< 0.000050	0.000050 mg/L		< 0.000050				18	
Sodium, total	70.6	0.10 mg/L		69.7			1	10	
Strontium, total	0.603	0.0010 mg/L		0.597			1	9	
Sulfur, total	29.5	3.0 mg/L		29.2			1	20	
Tellurium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, total	0.000074	0.000020 mg/L		0.000076				20	
Thorium, total	0.00012	0.00010 mg/L		0.00012				18	
Tin, total	0.00074	0.00020 mg/L		0.00075				20	
Titanium, total	0.0221	0.0050 mg/L		0.0230				20	
Tungsten, total	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, total	0.00876	0.000020 mg/L		0.00868			< 1	14	
Vanadium, total	0.0011	0.0010 mg/L		0.0011				17	
Zinc, total	0.0072	0.0040 mg/L		0.0070				8	
Zirconium, total	0.00039	0.00010 mg/L		0.00040				20	
Reference (B8C0024-SRM1)				Prepared: 2018-03-01, Analyzed: 2018-03-01					
Aluminum, total	0.311	0.0050 mg/L		0.303			102	82-114	
Antimony, total	0.0533	0.00020 mg/L		0.0511			104	88-115	
Arsenic, total	0.119	0.00050 mg/L		0.118			100	88-111	
Barium, total	0.809	0.0050 mg/L		0.823			98	83-110	
Beryllium, total	0.0530	0.00010 mg/L		0.0496			107	80-119	
Boron, total	3.73	0.0050 mg/L		3.45			108	80-118	
Cadmium, total	0.0514	0.000010 mg/L		0.0495			104	90-110	
Calcium, total	12.1	0.20 mg/L		11.6			104	85-113	
Chromium, total	0.244	0.00050 mg/L		0.250			98	88-111	
Cobalt, total	0.0392	0.00010 mg/L		0.0377			104	90-114	
Copper, total	0.521	0.00040 mg/L		0.486			107	90-117	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8022048
2018-03-08 15:32

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8C0024, Continued									
Reference (B8C0024-SRM1), Continued					Prepared: 2018-03-01, Analyzed: 2018-03-01				
Iron, total	0.500	0.010 mg/L	0.488		102	90-116			
Lead, total	0.221	0.00020 mg/L	0.204		108	90-110			
Lithium, total	0.438	0.00010 mg/L	0.403		109	79-118			
Magnesium, total	4.06	0.010 mg/L	3.79		107	88-116			
Manganese, total	0.112	0.00020 mg/L	0.109		102	88-108			
Molybdenum, total	0.202	0.00010 mg/L	0.198		102	88-110			
Nickel, total	0.256	0.00040 mg/L	0.249		103	90-112			
Phosphorus, total	0.200	0.050 mg/L	0.227		88	72-118			
Potassium, total	7.49	0.10 mg/L	7.21		104	87-116			
Selenium, total	0.135	0.00050 mg/L	0.121		112	90-122			
Sodium, total	8.07	0.10 mg/L	7.54		107	86-118			
Strontium, total	0.366	0.0010 mg/L	0.375		98	86-110			
Thallium, total	0.0888	0.000020 mg/L	0.0805		110	90-113			
Uranium, total	0.0312	0.000020 mg/L	0.0306		102	88-112			
Vanadium, total	0.376	0.0010 mg/L	0.386		97	87-110			
Zinc, total	2.58	0.0040 mg/L	2.49		103	90-113			

Total Metals, Batch B8C0381

Blank (B8C0381-BLK1)					Prepared: 2018-03-06, Analyzed: 2018-03-06				
Mercury, total	< 0.000010	0.000010 mg/L							
Reference (B8C0381-SRM1)					Prepared: 2018-03-06, Analyzed: 2018-03-06				
Mercury, total	0.00420	0.000010 mg/L	0.00489		86	80-120			

QC Qualifiers:

SPK1 The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

Submission Key F059-HCG-421B

SUBMITTED :2/28/2018 8:02:56 AM

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Client information	Project information	Laboratory information	COC information
Allterra Construction 2158 Millstream Road Victoria, BC V9B 6H4 Phone: (250) 508-0726 Fax:	Number: [none] Sample count: 10 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond, BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: Feb 2018 Shipped via: Harbour Air Tracking #: SDG:

#	Client information	Analyses	Containers
# 1	MW6 02/27/2018 10:45 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
# 2	MW3S 02/27/2018 13:45 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
# 3	MW3D 02/27/2018 14:15 Grab / Water	Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)

Submission Key F059-HCG-421B		SUBMITTED :2/28/2018 8:02:56 AM		Page 2 of 3
# 4	MW2	Analyses		Containers
	02/27/2018 15:00			
	Grab / Water			
		Alkalinity, all (KEL) TAT: 5		C03_250 mL Glass (EPH/PAH) (1)
		Anions in Water by IC, 5 Analytes (KEL) TAT: 5		C05_125 mL Plastic (Metals) (1)
		Colour, True - 456 nm (KEL) TAT: 5		C06_40 mL Vial (Mercury) (1)
		Conductivity in Water (RMD) TAT: 5		C10_125 mL Plastic (H2SO4) (1)
		L/HEPH in Water (RMD) TAT: 5		C11_1 L Plastic (General) (1)
		Mercury, diss ICPMS, Low (RMD) TAT: 5		S05_125 mL Plastic (Metals-F) (1)
		Mercury, total CVAFS Reg & Low (RMD) TAT: 5		S06_40 mL Vial (Mercury-F) (1)
		Metals, dissolved, All, Low (RMD) TAT: 5		
		Metals, total, All, Low (RMD) TAT: 5		
		pH in Water (RMD) TAT: 5		
		Solids, Total Suspended (RMD) TAT: 5		
		Turbidity (RMD) TAT: 5		
# 5	SB1	Analyses		Containers
	02/27/2018 13:00			
	Grab / Water			
		Alkalinity, all (KEL) TAT: 5		C03_250 mL Glass (EPH/PAH) (1)
		Anions in Water by IC, 5 Analytes (KEL) TAT: 5		C05_125 mL Plastic (Metals) (1)
		Colour, True - 456 nm (KEL) TAT: 5		C06_40 mL Vial (Mercury) (1)
		Conductivity in Water (RMD) TAT: 5		C10_125 mL Plastic (H2SO4) (1)
		L/HEPH in Water (RMD) TAT: 5		C11_1 L Plastic (General) (1)
		Mercury, diss ICPMS, Low (RMD) TAT: 5		S05_125 mL Plastic (Metals-F) (1)
		Mercury, total CVAFS Reg & Low (RMD) TAT: 5		S06_40 mL Vial (Mercury-F) (1)
		Metals, dissolved, All, Low (RMD) TAT: 5		
		Metals, total, All, Low (RMD) TAT: 5		
		pH in Water (RMD) TAT: 5		
		Solids, Total Suspended (RMD) TAT: 5		
		Turbidity (RMD) TAT: 5		
# 6	SB2	Analyses		Containers
	02/27/2018 12:15			
	Grab / Water			
		Alkalinity, all (KEL) TAT: 5		C03_250 mL Glass (EPH/PAH) (1)
		Anions in Water by IC, 5 Analytes (KEL) TAT: 5		C05_125 mL Plastic (Metals) (1)
		Colour, True - 456 nm (KEL) TAT: 5		C06_40 mL Vial (Mercury) (1)
		Conductivity in Water (RMD) TAT: 5		C10_125 mL Plastic (H2SO4) (1)
		L/HEPH in Water (RMD) TAT: 5		C11_1 L Plastic (General) (1)
		Mercury, diss ICPMS, Low (RMD) TAT: 5		S05_125 mL Plastic (Metals-F) (1)
		Mercury, total CVAFS Reg & Low (RMD) TAT: 5		S06_40 mL Vial (Mercury-F) (1)
		Metals, dissolved, All, Low (RMD) TAT: 5		
		Metals, total, All, Low (RMD) TAT: 5		
		pH in Water (RMD) TAT: 5		
		Solids, Total Suspended (RMD) TAT: 5		
		Turbidity (RMD) TAT: 5		
# 7	SB3	Analyses		Containers
	02/27/2018 11:30			
	Grab / Water			
		Alkalinity, all (KEL) TAT: 5		C03_250 mL Glass (EPH/PAH) (1)
		Anions in Water by IC, 5 Analytes (KEL) TAT: 5		C05_125 mL Plastic (Metals) (1)
		Colour, True - 456 nm (KEL) TAT: 5		C06_40 mL Vial (Mercury) (1)
		Conductivity in Water (RMD) TAT: 5		C10_125 mL Plastic (H2SO4) (1)
		L/HEPH in Water (RMD) TAT: 5		C11_1 L Plastic (General) (1)
		Mercury, diss ICPMS, Low (RMD) TAT: 5		S05_125 mL Plastic (Metals-F) (1)
		Mercury, total CVAFS Reg & Low (RMD) TAT: 5		S06_40 mL Vial (Mercury-F) (1)
		Metals, dissolved, All, Low (RMD) TAT: 5		
		Metals, total, All, Low (RMD) TAT: 5		
		pH in Water (RMD) TAT: 5		
		Solids, Total Suspended (RMD) TAT: 5		
		Turbidity (RMD) TAT: 5		

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# 8	LE-1 02/27/2018 15:45 Grab / Water	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
# 9	SW1 02/27/2018 14:45 Grab / Water	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Chromium, speciated total (RMD) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C09_125 mL Plastic (CN/Cr6) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
# 10	FB 02/27/2018 10:30 Grab / Water	Analyses Alkalinity, all (KEL) TAT: 5 Anions in Water by IC, 5 Analytes (KEL) TAT: 5 Colour, True - 456 nm (KEL) TAT: 5 Conductivity in Water (RMD) TAT: 5 L/HEPH in Water (RMD) TAT: 5 Mercury, diss ICPMS, Low (RMD) TAT: 5 Mercury, total CVAFS Reg & Low (RMD) TAT: 5 Metals, dissolved, All, Low (RMD) TAT: 5 Metals, total, All, Low (RMD) TAT: 5 pH in Water (RMD) TAT: 5 Solids, Total Suspended (RMD) TAT: 5 Turbidity (RMD) TAT: 5	Containers C03_250 mL Glass (EPH/PAH) (1) C05_125 mL Plastic (Metals) (1) C06_40 mL Vial (Mercury) (1) C10_125 mL Plastic (H2SO4) (1) C11_1 L Plastic (General) (1) S05_125 mL Plastic (Metals-F) (1) S06_40 mL Vial (Mercury-F) (1)
Relinquished by		Date/Time	Accepted by

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8022048
Report Date: 2018-03-08 15:32:22

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

LAB ID				8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07	8022048-08	8022048-09	8022048-10
CLIENT ID				MW6	MW3S	MW3D	MW2	SB1	SB2	SB3	LE-1	SW1	FB
DATE SAMPLED				2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
DATE RECEIVED				2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28
MATRIX				Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
General Method	Analyte	Units	MRL										
Anions	Chloride	mg/L	0.1	39.2	13.1	2.55	6.6	4.07	26.7	3.32	2540	11	<0.10
Anions	Fluoride	mg/L	0.1	0.18	0.64	0.14	0.31	0.3	0.15	0.2	<1.00	<0.10	<0.10
Anions	Nitrate (as N)	mg/L	0.01	0.093	0.082	<0.010	<0.010	0.114	0.221	0.111	1.3	0.387	<0.010
Anions	Nitrite (as N)	mg/L	0.01	0.032	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.010	<0.010
Anions	Sulfate	mg/L	1	94.3	38.3	22.7	18.1	16	46.2	17.9	1450	55.9	<1.0
General Parameters	Colour, True	CU	5	<5.0	<5.0	5.4	7.2	<5.0	<5.0	11	<5.0	<5.0	<5.0
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	637	125	102	123	21.4	138	20.5	60.6	82.2	<1.0
General Parameters	Alkalinity, Phenolphthalein (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	637	125	102	123	21.4	138	20.5	60.6	82.2	<1.0
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001									<0.0010	
General Parameters	Solids, Total Suspended	mg/L	2	14.7	14	8.2	15.5	104	133	226	<2.0	<2.0	<2.0
General Parameters	Turbidity	NTU	0.1	13.1	8.33	4.5	15.1	88.1	138	216	1.58	1.25	0.99
General Parameters	pH	pH units	0.1	7.19	7.62	7.66	7.71	7.12	7.09	6.97	7.28	7.63	5.43
General Parameters	Conductivity (EC)	uS/cm	2	1390	345	250	291	87	436	88.8	9300	312	<2.0
Calculated Parameters	Chromium, Trivalent	mg/L	0.001									<0.00100	
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	599	145	103	130	34	175	35.3	2520	135	<0.500
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	0.0076	<0.0050	0.0109	0.02	<0.0050	<0.0050
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	0.0029	0.00096	0.00125	0.00196	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0858	0.0279	0.0208	0.0313	<0.0050	0.0057	<0.0050	0.0467	0.0066	<0.0050
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.0783	0.0197	0.0223	0.0221	<0.0050	0.0156	0.0057	0.2	0.0159	<0.0050
Dissolved Metals	Cadmium, dissolved	mg/L	1E-05	<0.000010	0.000013	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000558	<0.000010	<0.000010
Dissolved Metals	Calcium, dissolved	mg/L	0.2	179	46.4	32.5	39.8	12	57.5	11.4	692	43.8	<0.20
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	0.00186	0.00078	0.00036	0.00039	<0.00010	<0.00010	<0.00010	0.00591	<0.00010	<0.00010
Dissolved Metals	Copper, dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00069	0.00055	0.00263	0.00092	<0.00040
Dissolved Metals	Iron, dissolved	mg/L	0.01	0.968	0.033	0.088	0.242	<0.010	<0.010	0.014	0.011	<0.010	<0.010
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	0.0149	0.0001	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	0.00025	0.00013	<0.00010
Dissolved Metals	Magnesium, dissolved	mg/L	0.01	36.7	7.02	5.4	7.31	0.983	7.7	1.68	192	6.16	<0.010
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	2.1	0.374	0.285	0.449	0.00057	0.00507	0.00128	25.5	0.00259	<0.00020
Dissolved Metals	Mercury, dissolved	mg/L	4E-05	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00074	0.00613	0.00668	0.00421	0.00031	0.00064	0.00032	0.00106	0.00072	<0.00010
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.00405	0.00129	0.00131	0.00089	0.00056	<0.00040	<0.00040	0.00641	<0.00040	<0.00040
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	<0.050	<0.050	0.078	0.132	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8022048
Report Date: 2018-03-08 15:32:22

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

Note: This is not the original data. Please refer to PDF / Hardcopy report.

LAB ID				8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07	8022048-08	8022048-09	8022048-10
CLIENT ID				MW6	MW3S	MW3D	MW2	SB1	SB2	SB3	LE-1	SW1	FB
DATE SAMPLED				2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
DATE RECEIVED				2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28
MATRIX				Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
General Method	Analyte	Units	MRL										
Dissolved Metals	Potassium, dissolved	mg/L	0.1	4.22	0.86	0.61	0.7	0.12	1.01	0.16	15.9	0.6	<0.10
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	11	6	6.2	6.7	1	4.4	1.2	5	3.8	<1.0
Dissolved Metals	Silver, dissolved	mg/L	5E-05	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dissolved Metals	Sodium, dissolved	mg/L	0.1	67.4	13.1	10.9	9.53	1.67	17.3	2.02	1240	7.79	<0.10
Dissolved Metals	Strontium, dissolved	mg/L	0.001	0.597	0.224	0.19	0.168	0.0261	0.172	0.0249	3.3	0.116	<0.0010
Dissolved Metals	Sulfur, dissolved	mg/L	3	25.8	12.9	7.8	6.7	5.5	14.2	5.7	510	18.1	<3.0
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals	Thallium, dissolved	mg/L	2E-05	<0.000020	0.000024	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000043	<0.000020	<0.000020
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Dissolved Metals	Tin, dissolved	mg/L	0.0002	0.00022	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Uranium, dissolved	mg/L	2E-05	0.00867	0.00107	0.000677	0.00089	0.000039	0.000823	0.000059	0.000387	0.00052	<0.000020
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dissolved Metals	Zinc, dissolved	mg/L	0.004	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0147	<0.0040	<0.0040
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Aluminum, total	mg/L	0.005	0.507	0.129	0.0712	0.432	6.21	8.95	13.2	0.171	0.0362	<0.0050
Total Metals	Antimony, total	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00026	0.00021	<0.00020	<0.00020
Total Metals	Arsenic, total	mg/L	0.0005	0.00303	0.00099	0.00123	0.00192	0.00067	0.00084	0.00206	<0.00050	<0.00050	<0.00050
Total Metals	Barium, total	mg/L	0.005	0.0904	0.0358	0.0203	0.033	0.0327	0.0476	0.0618	0.0491	0.007	<0.0050
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	0.00013	0.00022	0.00023	<0.00010	<0.00010	<0.00010
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Total Metals	Boron, total	mg/L	0.005	0.0912	0.0245	0.026	0.0256	0.0064	0.0213	0.0103	0.231	0.0188	<0.0050
Total Metals	Cadmium, total	mg/L	1E-05	0.000167	0.000247	0.000099	0.000024	0.000026	0.000023	0.000045	0.000601	<0.000010	<0.000010
Total Metals	Calcium, total	mg/L	0.2	190	50.4	33.4	42.5	14.9	68.6	16.7	749	48.3	<0.20
Total Metals	Chromium, total	mg/L	0.0005	0.00092	<0.00050	<0.00050	0.00124	0.00683	0.00775	0.0229	0.00053	<0.00050	<0.00050
Total Metals	Cobalt, total	mg/L	0.0001	0.00222	0.00092	0.00039	0.00064	0.00611	0.00603	0.0106	0.00619	<0.00010	<0.00010
Total Metals	Copper, total	mg/L	0.0004	0.00351	0.00063	<0.00040	0.00069	0.0158	0.0246	0.0345	0.00312	0.00105	<0.00040
Total Metals	Iron, total	mg/L	0.01	1.61	0.157	0.125	0.841	6.42	9.1	14	0.131	0.032	<0.010
Total Metals	Lead, total	mg/L	0.0002	0.00106	<0.00020	<0.00020	0.00041	0.00692	0.00286	0.00728	<0.00020	<0.00020	<0.00020
Total Metals	Lithium, total	mg/L	0.0001	0.0154	0.00025	0.00016	0.0002	0.00211	0.00289	0.00702	0.00037	0.00026	0.00011
Total Metals	Magnesium, total	mg/L	0.01	37.8	7.49	5.42	7.6	3.06	10.8	6.58	200	6.45	<0.010
Total Metals	Manganese, total	mg/L	0.0002	2.25	0.416	0.295	0.482	0.196	0.351	0.256	27.8	0.00787	<0.00020
Total Metals	Mercury, total	mg/L	1E-05	0.000012	<0.000010	<0.000010	<0.000010	0.00002	<0.000010	0.000016	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00101	0.00629	0.00664	0.00437	0.00039	0.00099	0.00052	0.00107	0.00076	<0.00010
Total Metals	Nickel, total	mg/L	0.0004	0.00527	0.00163	0.00145	0.00157	0.00664	0.00721	0.0202	0.00708	0.00045	<0.00040
Total Metals	Phosphorus, total	mg/L	0.05	<0.050	0.061	0.088	0.161	0.131	0.218	0.256	<0.050	<0.050	<0.050
Total Metals	Potassium, total	mg/L	0.1	4.4	0.93	0.6	0.71	0.62	2.41	1.41	16.2	0.61	<0.10

Client Allterra Construction
Attention Rahim Gaidhar
Project P17-932
Project Info [none]

LAB ID				8022048-01	8022048-02	8022048-03	8022048-04	8022048-05	8022048-06	8022048-07	8022048-08	8022048-09	8022048-10
CLIENT ID				MW6	MW3S	MW3D	MW2	SB1	SB2	SB3	LE-1	SW1	FB
DATE SAMPLED				2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27	2018-02-27
DATE RECEIVED				2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28	2018-02-28
MATRIX				Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
General Method	Analyte	Units	MRL										
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	12.1	6.7	6.2	7.5	10.4	20.3	24.1	5.3	4.1	<1.0
Total Metals	Silver, total	mg/L	5E-05	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	69.7	14	11	9.68	2.09	19.4	3.19	1300	8.4	<0.10
Total Metals	Strontium, total	mg/L	0.001	0.597	0.23	0.184	0.166	0.0365	0.198	0.0517	3.44	0.119	<0.0010
Total Metals	Sulfur, total	mg/L	3	29.2	14.5	6.8	5.8	4.9	15.3	5.6	568	19.8	<3.0
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	2E-05	0.000076	0.000032	<0.000020	<0.000020	<0.000020	0.000033	0.000057	0.000047	<0.000020	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	0.00012	0.00016	0.00013	<0.00010	0.00017	0.00034	0.00059	<0.00010	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	0.00075	<0.00020	<0.00020	<0.00020	0.00052	0.00051	0.00054	<0.00020	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	0.023	<0.0050	<0.0050	0.026	0.283	0.46	0.644	<0.0050	<0.0050	<0.0050
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	2E-05	0.00868	0.00117	0.000701	0.0009	0.000338	0.00121	0.000519	0.000397	0.000551	<0.000020
Total Metals	Vanadium, total	mg/L	0.001	0.0011	<0.0010	<0.0010	0.0019	0.0158	0.0186	0.0326	<0.0010	<0.0010	<0.0010
Total Metals	Zinc, total	mg/L	0.004	0.007	<0.0040	<0.0040	<0.0040	0.0165	0.0206	0.0408	0.0153	<0.0040	<0.0040
Total Metals	Zirconium, total	mg/L	0.0001	0.0004	0.00019	0.00016	0.00017	0.0032	0.00138	0.00332	<0.00010	<0.00010	<0.00010
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200	<0.200	<0.2					

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Project P17-932
Project Info [none]

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