

From: SPOMO1701@outlook.com
Sent: Monday, July 16, 2018 10:16 PM
To: Environmental Compliance ENV:EX; marty@chholdings.ca
Subject: SPO MO1701 20180715 Status Update
Attachments: July 15, 2018 CHH Progress Report.pdf; June 2018 CHH SUBMITTAL-Ground Water Quality DATA-CLOSURE PLAN.pdf; June 2018 CHH SUBMITTAL-Surface Water Quality DATA-CLOSURE PLAN.pdf; COA_CHH JUNE 2018.pdf; COA_CHH JUNE 2018.xlsx

- ***The sending date of this submittal complies with item 4b of the Oct 11, 2017 Ministry of Environment Letter entitled Re: Spill Prevention Order for Cobble Hill Holdings Landfill – Reporting Requirements File MO1701***
- ***Please find information regarding the Leachate reporting requirements for the July 15, 2018 reporting period as per SPILL PREVENTION ORDER : MO1701 Section 1d***

Total Leachate Collected= 7.93 m³

Total Leachate Stored= 45.52 m³

Total Leachate Transported= 0 m³

- ***Sampling was conducted on June 26, 2018 as per Section 6biii of File 311372 August 11, 2017 letter. Tabulated laboratory results and Certificates of Analysis 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)
8. SB-1
9. SB-2
10. SB-3 (Dry)

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

Thank you



ISLANDER ENGINEERING

FIELD REVIEW REPORT		DATE: July 15 2018	ISLANDER PROJECT No.: 2087
REPORT No: 24	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: 10% Cloud cover, Sunny, 20 deg	1 of 3 PAGE: 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, and no noticeable changes since the date of our last inspection
- **Leachate and Leak Detention facility**
 - Total leachate collected: = **7.93 m³**
 - Total leachate stored = **45.52 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: July 15 2018	ISLANDER PROJECT No.: 2087
REPORT No: 24	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: 10% Cloud cover, Sunny, 20 deg	PAGE: 2 of 3



SMA - looking south



SMA – looking north



Pipe trenching and Leachate and Leak Detention facility



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FIELD REVIEW REPORT		DATE: July 15 2018	ISLANDER PROJECT No.: 2087
REPORT No: 24	STAGE OF CONSTRUCTION: Landfill Closure	WEATHER: 10% Cloud cover, Sunny, 20 deg	PAGE: 3 of 3



PEA– NW corner



PEA ditch



PEA north face

Table 1: Analytical Results for Nutrients			SHA-LE-1	SHA-LE-1	RPD	SHA-SW-1
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8062614-07	8062614-08		8062614-09
Sample ID			LE-1	LE-1		SW1
Date Sampled/Time			2018-06-26	2018-06-26		2018-06-26
Physical Tests						
Colour, True (Colour Units)	15 TCU	15 ⁽¹⁾ units absolute, or 5 units above background (30-day average)	8.1	8.8	*	<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	7.03	7.14	1.55%	7.39
Conductivity (uS/cm)	-	-	12700	12700	0.00%	620
Hardness (as CaCO3)	-	-	3300	3290	0.30%	280
Turbidity (NTU)	Δ1 NTU	8 NTU above background (24-hr during clear flow)	<0.10	<0.10	*	<0.10
Anions and Nutrients mg/L						
Alkalinity Total (as CaCO3)	<10 high sensitivity to acid inputs 10-20 moderate sensitivity to acid inputs >20 low sensitivity to acid inputs		55.3	56.1	1.44%	208
Acid Sensitivity			Low	Low		Low
Chloride (Cl)	250 mg/L	600 mg/L (instant max), 150 mg/L (30-day average)	3570	3600	0.84%	23.9
Fluoride (F)	1.5 mg/L (instant max) 1.0 mg/L (30-day average)	0.4 (Hardness <10mg/L)	<1.00	<1.00	*	<0.10
		Hardness-Dependent AW (Hardness is >10mg/L) ⁽³⁾	0.27	0.27	-2.19	0.29
Nitrate (as N)	45 mg/L	32.8 mg/L (instant maximum) 3.0 mg/L (30-day average)	1.92	1.92	0.00%	0.248
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	<0.100	*	<0.010
Sulfate (SO4) H 0-30 mg/L	500 mg/L	128 mg/L 30-day average)				
H 31 - 75 mg/L		218 mg/L (30-day average)				
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	1840	1860	1.08%	88.3

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals			SHA-LE-1	SHA-LE-1	RPD	SHA-SW-1
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8062614-07	8062614-08		8062614-09
Sample ID			LE-1	LE-1		SW1
Date Sampled/Time			2018-06-26	2018-06-26		2018-06-26
Physical Tests						
Hardness (as CaCO3) (mg/L)	-	-	3300	3290	0.30%	280
pH	7-10.5	6.5-9	7.03	7.14	1.55%	7.39
Total Metals (mg/L)						
Aluminum (Al)-Total	0.2	-	0.148	0.148	0.00%	0.0557
Antimony (Sb)-Total	-	-	0.00037	0.00033	*	<0.00020
Arsenic (As)-Total	0.01	0.005	0.00051	0.00052	*	<0.00050
Barium (Ba)-Total	-	-	0.0629	0.0633	0.63%	0.0185
Beryllium (Be)-Total	-	-	<0.00010	<0.00010	*	<0.00010
Bismuth, total	-	-	<0.00010	<0.00010	*	<0.00010
Boron (B)-Total	5	1.2	0.35	0.361	3.09%	0.0269
Cadmium (Cd)-Total	-	-	0.00094	0.000951	1.16%	0.000021
Calcium (Ca)-Total	-	-	1030	1070	3.81%	114
Chromium (Cr)-Total Chromium	-	-	<0.00050	0.00095	*	<0.00050
Chromium (Cr(III))	-	-	-	-	*	<0.00100
Chromium (Cr(VI))	-	-	-	-	*	<0.0010
Cobalt (Co)-Total	-	0.110 (Short Term), 0.004 (Long Term Average)	0.0101	0.0102	0.99%	0.00028
Copper (Cu)-Total	0.5	Hardness-Dependent ⁽⁷⁾	0.00577	0.00603	4.41%	0.0018
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	0.3122	0.3113		0.0283
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.1320	0.1316		0.0112
Iron (Fe)-Total	-	1	0.026	0.027	*	0.049
Lead (Pb)-Total	0.01	Hardness-Dependent ⁽³⁾	<0.00020	<0.00020	*	<0.00020
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	6.9984	6.9714		0.3028
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	0.2763	0.2752		0.0151
Lithium (Li)-Total	-	-	0.00067	0.00067	0.00%	0.00025
Magnesium (Mg)-Total	-	-	275	275	0.00%	13.3
Manganese (Mn)-Total	-	Hardness Dependent ⁽³⁾	39.3	38.8	1.28%	0.128
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	36.9	36.8		3.6
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	15.1	15.1		1.8
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)	0.00212	0.0021	0.95%	0.00116
Nickel (Ni)-Total	-	0.025 (Hardness-Dependent ⁽³⁾ BCAWWQG to protect AW H<60mg/L)	0.0149	0.0152	1.99%	0.00134
		Calculated Hardness-Dependent ⁽¹²⁾ BCAWWQG to protect AW 60≤H≤180 mg/L CaCO3	1.362	1.359		0.209
Phosphorus(P)-Total	-	-	<0.050	<0.050	*	<0.050
Potassium (K)-Total	-	-	24.6	25.6	3.98%	1.1
Selenium (Se)-Total	0.01	0.002	<0.00050	<0.00050	*	<0.00050
Silicon (Si)-Total	-	-	8.1	8.7	7.14%	6.8
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)	0.000079	0.000072	*	<0.000050
Sodium (Na)-Total	-	-	1850	1840	0.54%	12.8
Strontium (Sr)-Total	-	-	4.84	4.97	2.65%	0.276
Sulfur (S)-Total	-	-	713	738	3.45%	30.8
Tellurium (Te)-Total	-	-	<0.00050	<0.00050	*	<0.00050
Thallium (Tl)-Total	-	-	0.000098	0.000095	*	<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	-	-	0.000308	0.000301	2.30%	0.00199
Vanadium (V)-Total	-	-	<0.0010	<0.0010	*	0.0011
Zinc (Zn)-Total	5.0	Hardness >90 mg/L	0.0655	0.0682	4.04%	<0.0040
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (instant max)	2.441	2.433		0.176
		Hardness-Dependent BCAWQG to protect AW ⁽¹⁾ (30-d average)	2.415	2.408		0.150
Zirconium (Zr)-Total	-	-	<0.00010	<0.00010	*	<0.00010

Table 3: Analytical Results for Dissolved Metals			SHA-LE-1	SHA-LE-1	RPD	SHA-SW-1
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8062614-07	8062614-08		8062614-09
Sample ID			LE-1	LE-1		SW1
Date Sampled/Time			2018-06-26	2018-06-26		2018-06-26
Physical Tests						
Hardness (as CaCO3) (mg/L)	-	-	3300	3290	0.30%	280
pH	7-10.5	6.5-9	7.03	7.14	1.55%	7.39
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	0.0327	0.0468	35.47%	<0.0050
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (instant max)	0.181	0.216		0.333
		pH/Hardness Dependent BCAWQG to protect AW ⁽⁴⁾ (30- d Mean)	0.146	0.190		0.356
Antimony (Sb)-Dissolved	-	-	0.00023	0.00021	*	<0.00020
Arsenic (As)-Dissolved	-	-	<0.00050	<0.00050	*	<0.00050
Barium (Ba)-Dissolved	-	-	0.0603	0.0597	1.00%	0.0174
Beryllium (Be)-Dissolved	-	-	<0.00010	<0.00010	*	<0.00010
Bismuth (Bi)-Dissolved	-	-	<0.00010	<0.00010	*	<0.00010
Boron (B)-Dissolved	-	-	0.315	0.321	1.89%	0.0225
Cadmium (Cd)-Dissolved	-	Hardness-Dependent ⁽³⁾	0.000906	0.000878	3.14%	0.00002
	-	Calculated Hardness-Dependent ⁽³⁾ BCAWWQG to protect AW (short-term max) e[1.03 * ln(Hss) - 5.274] ug/L H<455mg/L	Hardness exceeds 455mg/L	Hardness exceeds 455mg/L		0.00170
	-	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	Hardness exceeds 285mg/L		0.00045
Calcium (Ca)-Dissolved	-	up to 4, highly sensitive to acid inputs 4 to 8, moderately sensitive over 8 low sensitivity	924	938	1.50%	91.7
Chromium (Cr)-Dissolved	-	-	Low	Low		Low
Cobalt (Co)-Dissolved	-	-	<0.00050	<0.00050	*	0.00078
Copper (Cu)-Dissolved	-	-	0.00918	0.00911	0.77%	<0.00010
Iron (Fe)-Dissolved	-	0.35	0.00522	0.00521	0.19%	0.00126
Lead (Pb)-Dissolved	-	-	<0.010	<0.010	*	<0.010
Lithium, dissolved	-	-	<0.00020	<0.00020	*	<0.00020
Magnesium (Mg)-Dissolved	-	-	0.00064	0.00068	6.06%	0.00018
Manganese (Mn)-Dissolved	-	-	239	230	3.84%	12.3
Mercury (Hg)-Dissolved	-	-	32.4	31.1	4.09%	0.0742
Molybdenum (Mo)-Dissolved	-	-	<0.000010	<0.000010	*	<0.000010
Nickel (Ni)-Dissolved	-	-	0.00185	0.0019	2.67%	0.00102
Phosphorus (P)-Dissolved	-	-	0.0134	0.0135	*	0.00105
Potassium (K)-Dissolved	-	-	<0.050	<0.050	*	<0.050
Selenium (Se)-Dissolved	-	-	25.1	25	0.40%	1
Silicon (Si)-Dissolved	-	-	<0.00050	<0.00050	*	<0.00050
Silver (Ag)-Dissolved	-	-	8.3	8.3	0.00%	6.4
Sodium (Na)-Dissolved	-	-	0.000088	0.000067	*	<0.000050
Strontium (Sr)-dissolved	-	-	1490	1440	3.41%	11.4
Sulfur (S)-Dissolved	-	-	4.46	4.47	0.22%	0.244
Tellurium (Te)-Dissolved	-	-	709	726	*	30.2
Thallium (Tl)-Dissolved	-	-	<0.00050	<0.00050	*	<0.00050
Thorium (Th)-Dissolved	-	-	0.000097	0.00009	*	<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	-	-	0.000277	0.000265	4.43%	0.00167
Zinc (Zn)-Dissolved	-	-	<0.0010	<0.0010	*	<0.0010
Zirconium (Zr)-Dissolved	-	-	0.0609	0.0608	0.16%	0.0046
			<0.00010	<0.00010	*	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs			SHA-LE-1	SHA-LE-1	RPD	SHA-SW-1
Laboratory ID	BC DRINKING WATER QUALITY GUIDELINES	BC FRESHWATER AQUATIC LIFE WATER QUALITY GUIDELINES	8062614-07	8062614-08		8062614-09
Sample ID			LE-1	LE-1		SW1
Date Sampled/ Time			2018-06-26	2018-06-26		2018-06-26
Hydrocarbons ug/L						
LEPH	-	-	533	521	*	<250
HEPH	-	-	392	362	*	<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			0.181	0.152	*	<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: Leachate and 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)

Table 1: Analytical Results for Nutrients

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8062614-01	8062614-02	8062614-03	8062614-04	8062614-05	8062614-06
Date Sampled	Aquatic Life	Drinking Water	MW6	MW3S	MW3D	MW2	SB1	SB2
Physical Tests			2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26
Colour, True (TCU)	-	-	9	5.9	8	8.6	<5.0	<5.0
Conductivity (uS/cm)	-	-	1310	349	250	287	345	663
Hardness (as CaCO3) mg/L	-	-	536	135	95.9	110	140	264
pH (pH Units)	-	-	7.39	7.84	7.56	7.73	7.4	7.17
Total Suspended Solids mg/L			6.8	10.2	8.2	21.8	110	48.8
Total Dissolved Solids mg/L	-	-	-	-	-	-	-	
Turbidity (NTU)	-	-	10.3	6.77	7.84	13.4	51.9	22.9
Anions and Nutrients mg/L								
Alkalinity, Total (as CaCO3)	-	-	637	127	104	119	68.7	238
Chloride (Cl)	1500	250	41.4	9.58	2.69	5.67	5.76	35
Fluoride (F)	2 (H < 50)	1.5						
	3 (H ≥ 50)		0.11	<0.10	0.12	0.11	0.13	<0.10
Nitrate (as N)	400	10	<0.010	<0.010	<0.010	<0.010	0.536	0.314
Nitrite (as N) ⁽⁴⁾ Cl <2 mg/L	0.2	3.2						
Cl 2 - <4 mg/L	0.4				<0.010			
Cl 4 - <6 mg/L	0.6					<0.010	<0.010	
Cl 6 - <8 mg/L	0.8							
Cl 8 - <10 mg/L	1			<0.010				
Cl ≥ 10 mg/L	2		<0.010					<0.010
Sulfate (SO4)	1000	500	79.2	39.9	20.3	16.7	81.8	67.7

Notes: Refer to Table Endnotes (attached)

Table 2: Analytical Results for Total Metals

Sample Location		CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2	
As-built Well Depths				47m	23m	46m	43m	4.01m	3.28m	
Sample ID				8062614-01	8062614-02	8062614-03	8062614-04	8062614-05	8062614-06	
				MW6	MW3S	MW3D	MW2	SB1	SB2	
Date Sampled	Aquatic Life	Drinking Water	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	
Physical Tests mg/L										
Hardness (as CaCO3)			-	-	536	135	95.9	110	140	264
Total Metals mg/L										
Aluminum (Al)-Total			-	-	0.169	0.0858	0.0909	0.372	3.37	1.55
Antimony (Sb)-Total			-	-	0.00036	<0.00020	<0.00020	0.0003	0.0003	<0.00020
Arsenic (As)-Total			-	-	0.00393	0.0011	0.00134	0.00192	<0.00050	<0.00050
Barium (Ba)-Total			-	-	0.0813	0.0284	0.019	0.0305	0.0252	0.0172
Beryllium (Be)-Total			-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)- Total			-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Boron (B)-Total			-	-	0.0745	0.0197	0.0224	0.0215	0.0071	0.0223
Cadmium (Cd)-Total			-	-	0.000139	0.0004	0.000099	0.000032	0.000027	0.000012
Calcium (Ca)-Total			-	-	181	46.5	32.9	39.5	57.1	96.5
Chromium (Cr)-Total			-	-	0.00063	<0.00050	<0.00050	0.00064	0.00446	0.00195
Cobalt (Co)-Total			-	-	0.00234	0.00068	0.00042	0.00059	0.00401	0.00131
Copper (Cu)-Total			-	-	0.00191	0.0005	<0.00040	0.00073	0.0111	0.00583
Iron (Fe)-Total			-	-	2.23	0.133	0.172	0.813	4.05	1.77
Lead (Pb)-Total			-	-	0.00076	<0.00020	<0.00020	0.00028	0.00456	0.00057
Lithium (Li)-Total			-	-	0.0116	0.00016	0.00013	0.00015	0.00125	0.00072
Magnesium (Mg)-Total			-	-	35.6	7.25	5.42	7.22	5.34	12.6
Manganese (Mn)-Total			-	-	1.99	0.372	0.3	0.454	0.12	0.0617
Mercury (Hg)-Total			-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Total			-	-	0.00096	0.00633	0.00673	0.00397	0.00049	0.00096
Nickel (Ni)-Total			-	-	0.00443	0.00158	0.00135	0.00112	0.00446	0.00186
Phosphorus(P)-Total			-	-	<0.050	0.068	0.09	0.155	0.079	<0.050
Potassium (K)-Total			-	-	3.74	0.95	0.62	0.7	0.64	1.75
Selenium (Se)-Total			-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Total			-	-	11.7	6.4	6	6.9	7.2	8
Silver (Ag)-Total			-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total			-	-	66.3	14.3	10.9	9.17	4.66	24.8
Strontium (Sr)-Total			-	-	0.596	0.241	0.2	0.17	0.135	0.297
Sulfur (S)-Total			-	-	22.3	13.8	7.2	5.3	26.3	22.8
Tellurium (Te)-Total			-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Total			-	-	0.000042	0.000028	<0.000020	<0.000020	<0.000020	<0.000020
Thorium (Th)-Total			-	-	<0.00010	<0.00010	0.00015	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total			-	-	0.00066	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Total			-	-	0.0087	<0.0050	<0.0050	0.021	0.184	0.0975
Uranium (U)-Total			-	-	0.00733	0.00104	0.000717	0.000827	0.000617	0.0019
Vanadium (V)-Total			-	-	<0.0010	<0.0010	<0.0010	0.0019	0.01	0.0045
Zinc (Zn)-Total			-	-	0.0085	0.0047	<0.0040	0.0047	0.0124	0.0077
Zirconium (Zr)-Total			-	-	0.00026	0.0002	0.0002	0.00016	0.00017	0.00019

Notes: Refer to Table Endnotes (attached)

Table 3: Analytical Results for Dissolved Metals

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8062614-01	8062614-02	8062614-03	8062614-04	8062614-05	8062614-06
			MW6	MW3S	MW3D	MW2	SB1	SB2
Date Sampled	Aquatic Life	Drinking Water	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26
Physical Tests mg/L								
Hardness (as CaCO3)	-	-	536	135	95.9	110	140	264
Dissolved Metals mg/L								
Aluminum (Al)-Dissolved	-	9.5	<0.0050	<0.0050	<0.0050	0.0053	0.0057	<0.0050
Antimony (Sb)-Dissolved	0.2	0.006	<0.00020	<0.00020	<0.00020	<0.00020	0.00023	<0.00020
Arsenic (As)-Dissolved	0.05	0.01	0.00376	0.00101	0.00131	0.00185	<0.00050	<0.00050
Barium (Ba)-Dissolved	10	1	0.0742	0.0262	0.0187	0.0282	0.0064	0.0094
Beryllium (Be)-Dissolved	0.053	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)- Dissolved	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Boron (B)-Dissolved	50	5	0.0645	0.0177	0.0199	0.0186	0.006	0.0198
Cadmium (Cd)-Dissolved	0.0001 (H< 30)	0.005						
	0.0003 (H=30 -<90							
	0.0005 (H=90-<150			0.000015	0.000013	<0.000010	0.000011	
	0.0006 (H=150-<210)		<0.000010					<0.000010
Calcium (Ca)-Dissolved	-	-	160	43.1	29.9	32.8	49.1	86.4
Chromium (Cr)-Dissolved	0.01	0.05	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Colbalt (Co)-Dissolved	0.04	-	0.00197	0.00055	0.00034	0.0003	<0.00010	<0.00010
Copper (Cu)-Dissolved	0.02 (H<50)	1						
	0.03 (H=50-<75)							
	0.04 (H=75-<100)				<0.00040			
	0.05 (H=100-<125)					<0.00040		
	0.06 (H=125-<150)			<0.00040			0.00074	
	0.07 (H=150-<175)							
	0.08 (H=175-<200)							
	0.09 (H>200)		<0.00040					0.00079
Iron (Fe)-Dissolved	-	6.5	1.86	0.037	0.089	0.23	<0.010	<0.010
Lead (Pb)-Dissolved	0.04 (H<50)	0.01						
	0.05 (H=50-<100)				<0.00020			
	0.06 (H=100-<200)			<0.00020		<0.00020	<0.00020	
	0.11 (H=200-<300)							<0.00020
	0.16 (H>300)		<0.00020					
Lithium (Li)-Dissolved	-	-	0.0109	0.0001	<0.00010	<0.00010	<0.00010	0.00013
Magnesium (Mg)-Dissolved	-	100	33	6.71	5.11	6.75	4.06	11.6
Manganese (Mn)-Dissolved	-	0.55	1.91	0.345	0.287	0.445	0.00049	0.00127
Mercury (Hg)-Dissolved	0.001	0.001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Molybdenum (Mo)-Dissolved	10	0.25	0.00063	0.00553	0.0061	0.00356	0.00042	0.00087
Nickel (Ni)-Dissolved	0.25 (H<60)	-						
	0.65 (H=60-<120)				0.00112	0.00072		
	1.1 (H=120-<180)			0.00123			0.00079	
	1.5 (H>=180)		0.00335					0.00054
Phosphorus(P)-Dissolved	-	-	<0.050	<0.050	0.058	0.105	<0.050	<0.050
Potassium (K)-Dissolved	-	-	3.56	0.87	0.6	0.67	0.4	1.51
Selenium (Se)-Dissolved	0.01	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon (Si)-Dissolved	-	-	11.1	6	5.9	6.5	2.8	5.7
Silver (Ag)-Dissolved	0.0005 (H<=100)	-			<0.000050			
	0.015 (H>100)		<0.000050	<0.000050		<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	-	200	62	12.9	10.4	8.9	4.37	24.1
Strontium (Sr)-Dissolved	-	-	0.544	0.213	0.181	0.157	0.116	0.263
Sulfur (S)-Dissolved	-	-	22.7	12.6	7.1	5.8	30.1	23.8
Tellurium (Te)-Dissolved	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Thallium (Tl)-Dissolved	0.003	-	<0.000020	<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
Tin (Sn)-Dissolved	-	-	<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
Uranium (U)-Dissolved	3	0.02	0.00657	0.000947	0.000595	0.00067	0.000391	0.00163
Vanadium (V)-Dissolved	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	0.075 (H<90)	5						
	0.150 (H=90-<100)				<0.0040			
	0.900 (H=100-<200)			<0.0040		<0.0040	<0.0040	
	1.650 (H=200-<300)							<0.0040
	2.4 (H=300-<400)		<0.0040					
Zirconium (Zr)-Dissolved	-	-	0.00017	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Notes: Refer to Table Endnotes (attached)

Table 4: Analytical Results for Hydrocarbons and PAHs

Sample Location	CSR Standards ⁽¹⁾		MW-6	MW-3S	MW-3D	MW-2	SB1	SB2
As-built Well Depths			47m	23m	46m	43m	4.01m	3.28m
Sample ID			8062614-01	8062614-02	8062614-03	8062614-04	8062614-05	8062614-06
Date Sampled			MW6	MW3S	MW3D	MW2	SB1	SB2
	Aquatic Life	Drinking Water	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26	2018-06-26
Turbidity (NTU)	-	-	10.3	6.77	7.84	13.4	51.9	22.9
Hydrocarbons ug/L								
EPH10-19	5000	5000	<250	<250	<250	<250	<250	<250
EPH10-19 (SG)	5000	5000						
EPH19-32	-	-	270	<250	<250	<250	<250	<250
EPH19-32 (SG)	-	-						
LEPH	500	-	<250	<250	<250	<250	<250	<250
HEPH	-	-	270	<250	<250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons ug/L								
Acenaphthene	60	-	<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
Acridine	0.5	-	<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
Benz(a)anthracene	1	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(a)pyrene	0.1	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	-	-	<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
Benzo(k)fluoranthene	-	-	<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
Chrysene	1	-	<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
Fluoranthene	2	-	<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
Indeno(1,2,3-c,d)pyrene	-	-	<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
2-Methylnaphthalene			<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
Phenanthrene	3	-	<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
Quinoline	34	-	<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 and Seepage Blanket 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 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

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8062614
Report Date: 2018-07-06 16:08:38

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				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Anions	Chloride	mg/L	0.1	41.4	9.58	2.69
Anions	Fluoride	mg/L	0.1	0.11	<0.10	0.12
Anions	Nitrate (as N)	mg/L	0.01	<0.010	<0.010	<0.010
Anions	Nitrite (as N)	mg/L	0.01	<0.010	<0.010	<0.010
Anions	Sulfate	mg/L	1	79.2	39.9	20.3
General Parameters	Colour, True	CU	5	9	5.9	8
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	637	127	104
General Parameters	Alkalinity, Phenolphthalein (as Ca	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	637	127	104
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001			
General Parameters	Solids, Total Suspended	mg/L	2	6.8	10.2	8.2
General Parameters	Turbidity	NTU	0.1	10.3	6.77	7.84
General Parameters	pH	pH units	0.1	7.39	7.84	7.56
General Parameters	Conductivity (EC)	uS/cm	2	1310	349	250
Calculated Parameters	Chromium, Trivalent	mg/L	0.001			
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	536	135	95.9
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	0.00376	0.00101	0.00131

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LAB ID				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0742	0.0262	0.0187
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.0645	0.0177	0.0199
Dissolved Metals	Cadmium, dissolved	mg/L	1E-05	<0.000010	0.000015	0.000013
Dissolved Metals	Calcium, dissolved	mg/L	0.2	160	43.1	29.9
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	0.00197	0.00055	0.00034
Dissolved Metals	Copper, dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Dissolved Metals	Iron, dissolved	mg/L	0.01	1.86	0.037	0.089
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	0.0109	0.0001	<0.00010
Dissolved Metals	Magnesium, dissolved	mg/L	0.01	33	6.71	5.11
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	1.91	0.345	0.287
Dissolved Metals	Mercury, dissolved	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00063	0.00553	0.0061
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.00335	0.00123	0.00112
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	<0.050	<0.050	0.058
Dissolved Metals	Potassium, dissolved	mg/L	0.1	3.56	0.87	0.6
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	11.1	6	5.9

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LAB ID				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Dissolved Metals	Silver, dissolved	mg/L	5E-05	<0.000050	<0.000050	<0.000050
Dissolved Metals	Sodium, dissolved	mg/L	0.1	62	12.9	10.4
Dissolved Metals	Strontium, dissolved	mg/L	0.001	0.544	0.213	0.181
Dissolved Metals	Sulfur, dissolved	mg/L	3	22.7	12.6	7.1
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Thallium, dissolved	mg/L	2E-05	<0.000020	<0.000020	<0.000020
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Tin, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010
Dissolved Metals	Uranium, dissolved	mg/L	2E-05	0.00657	0.000947	0.000595
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010
Dissolved Metals	Zinc, dissolved	mg/L	0.004	<0.0040	<0.0040	<0.0040
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	0.00017	<0.00010	<0.00010
Total Metals	Aluminum, total	mg/L	0.005	0.169	0.0858	0.0909
Total Metals	Antimony, total	mg/L	0.0002	0.00036	<0.00020	<0.00020
Total Metals	Arsenic, total	mg/L	0.0005	0.00393	0.0011	0.00134
Total Metals	Barium, total	mg/L	0.005	0.0813	0.0284	0.019
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Total Metals	Boron, total	mg/L	0.005	0.0745	0.0197	0.0224

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Project Info [none]

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LAB ID				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Cadmium, total	mg/L	1E-05	0.000139	0.0004	0.000099
Total Metals	Calcium, total	mg/L	0.2	181	46.5	32.9
Total Metals	Chromium, total	mg/L	0.0005	0.00063	<0.00050	<0.00050
Total Metals	Cobalt, total	mg/L	0.0001	0.00234	0.00068	0.00042
Total Metals	Copper, total	mg/L	0.0004	0.00191	0.0005	<0.00040
Total Metals	Iron, total	mg/L	0.01	2.23	0.133	0.172
Total Metals	Lead, total	mg/L	0.0002	0.00076	<0.00020	<0.00020
Total Metals	Lithium, total	mg/L	0.0001	0.0116	0.00016	0.00013
Total Metals	Magnesium, total	mg/L	0.01	35.6	7.25	5.42
Total Metals	Manganese, total	mg/L	0.0002	1.99	0.372	0.3
Total Metals	Mercury, total	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00096	0.00633	0.00673
Total Metals	Nickel, total	mg/L	0.0004	0.00443	0.00158	0.00135
Total Metals	Phosphorus, total	mg/L	0.05	<0.050	0.068	0.09
Total Metals	Potassium, total	mg/L	0.1	3.74	0.95	0.62
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	11.7	6.4	6
Total Metals	Silver, total	mg/L	5E-05	<0.000050	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	66.3	14.3	10.9
Total Metals	Strontium, total	mg/L	0.001	0.596	0.241	0.2
Total Metals	Sulfur, total	mg/L	3	22.3	13.8	7.2

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LAB ID				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	2E-05	0.000042	0.000028	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	0.00015
Total Metals	Tin, total	mg/L	0.0002	0.00066	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	0.0087	<0.0050	<0.0050
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	2E-05	0.00733	0.00104	0.000717
Total Metals	Vanadium, total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Total Metals	Zinc, total	mg/L	0.004	0.0085	0.0047	<0.0040
Total Metals	Zirconium, total	mg/L	0.0001	0.00026	0.0002	0.0002
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	270	<250	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	270	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Acridine	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benz(a)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(a)pyrene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(b+j)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050

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LAB ID				8062614-01	8062614-02	8062614-03
CLIENT ID				MW6	MW3S	MW3D
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(g,h,i)perylene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(k)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	2-Chloronaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Chrysene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Dibenz(a,h)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Fluoranthene	ug/L	0.03	<0.030	<0.030	<0.030
Polycyclic Aromatic Hydrocarbons (PAH)	Fluorene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Indeno(1,2,3-cd)pyrene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	1-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Naphthalene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Phenanthrene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Pyrene	ug/L	0.02	<0.020	<0.020	<0.020
Polycyclic Aromatic Hydrocarbons (PAH)	Quinoline	ug/L	0.05	<0.050	<0.050	<0.050

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LAB ID				8062614-04	8062614-05	8062614-06
CLIENT ID				MW2	SB1	SB2
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Anions	Chloride	mg/L	0.1	5.67	5.76	35
Anions	Fluoride	mg/L	0.1	0.11	0.13	<0.10
Anions	Nitrate (as N)	mg/L	0.01	<0.010	0.536	0.314
Anions	Nitrite (as N)	mg/L	0.01	<0.010	<0.010	<0.010
Anions	Sulfate	mg/L	1	16.7	81.8	67.7
General Parameters	Colour, True	CU	5	8.6	<5.0	<5.0
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	119	68.7	238
General Parameters	Alkalinity, Phenolphthalein (as Ca	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	119	68.7	238
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001			
General Parameters	Solids, Total Suspended	mg/L	2	21.8	110	48.8
General Parameters	Turbidity	NTU	0.1	13.4	51.9	22.9
General Parameters	pH	pH units	0.1	7.73	7.4	7.17
General Parameters	Conductivity (EC)	uS/cm	2	287	345	663
Calculated Parameters	Chromium, Trivalent	mg/L	0.001			
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	110	140	264
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	0.0053	0.0057	<0.0050
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	<0.00020	0.00023	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	0.00185	<0.00050	<0.00050

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LAB ID				8062614-04	8062614-05	8062614-06
CLIENT ID				MW2	SB1	SB2
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0282	0.0064	0.0094
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.0186	0.006	0.0198
Dissolved Metals	Cadmium, dissolved	mg/L	1E-05	<0.000010	0.000011	<0.000010
Dissolved Metals	Calcium, dissolved	mg/L	0.2	32.8	49.1	86.4
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	0.0003	<0.00010	<0.00010
Dissolved Metals	Copper, dissolved	mg/L	0.0004	<0.00040	0.00074	0.00079
Dissolved Metals	Iron, dissolved	mg/L	0.01	0.23	<0.010	<0.010
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	<0.00010	<0.00010	0.00013
Dissolved Metals	Magnesium, dissolved	mg/L	0.01	6.75	4.06	11.6
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	0.445	0.00049	0.00127
Dissolved Metals	Mercury, dissolved	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00356	0.00042	0.00087
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.00072	0.00079	0.00054
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	0.105	<0.050	<0.050
Dissolved Metals	Potassium, dissolved	mg/L	0.1	0.67	0.4	1.51
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	6.5	2.8	5.7

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LAB ID					8062614-04	8062614-05	8062614-06
CLIENT ID					MW2	SB1	SB2
DATE SAMPLED					2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED					2018-06-27	2018-06-27	2018-06-27
MATRIX					Water	Water	Water
General Method	Analyte	Units	MRL				
Dissolved Metals	Silver, dissolved	mg/L	5E-05	<0.000050	<0.000050	<0.000050	<0.000050
Dissolved Metals	Sodium, dissolved	mg/L	0.1	8.9	4.37	24.1	
Dissolved Metals	Strontium, dissolved	mg/L	0.001	0.157	0.116	0.263	
Dissolved Metals	Sulfur, dissolved	mg/L	3	5.8	30.1	23.8	
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	
Dissolved Metals	Thallium, dissolved	mg/L	2E-05	<0.000020	<0.000020	<0.000020	
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Dissolved Metals	Tin, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	
Dissolved Metals	Uranium, dissolved	mg/L	2E-05	0.00067	0.000391	0.00163	
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	
Dissolved Metals	Zinc, dissolved	mg/L	0.004	<0.0040	<0.0040	<0.0040	
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Aluminum, total	mg/L	0.005	0.372	3.37	1.55	
Total Metals	Antimony, total	mg/L	0.0002	0.0003	0.0003	<0.00020	
Total Metals	Arsenic, total	mg/L	0.0005	0.00192	<0.00050	<0.00050	
Total Metals	Barium, total	mg/L	0.005	0.0305	0.0252	0.0172	
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Boron, total	mg/L	0.005	0.0215	0.0071	0.0223	

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LAB ID				8062614-04	8062614-05	8062614-06
CLIENT ID				MW2	SB1	SB2
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Cadmium, total	mg/L	1E-05	0.000032	0.000027	0.000012
Total Metals	Calcium, total	mg/L	0.2	39.5	57.1	96.5
Total Metals	Chromium, total	mg/L	0.0005	0.00064	0.00446	0.00195
Total Metals	Cobalt, total	mg/L	0.0001	0.00059	0.00401	0.00131
Total Metals	Copper, total	mg/L	0.0004	0.00073	0.0111	0.00583
Total Metals	Iron, total	mg/L	0.01	0.813	4.05	1.77
Total Metals	Lead, total	mg/L	0.0002	0.00028	0.00456	0.00057
Total Metals	Lithium, total	mg/L	0.0001	0.00015	0.00125	0.00072
Total Metals	Magnesium, total	mg/L	0.01	7.22	5.34	12.6
Total Metals	Manganese, total	mg/L	0.0002	0.454	0.12	0.0617
Total Metals	Mercury, total	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00397	0.00049	0.00096
Total Metals	Nickel, total	mg/L	0.0004	0.00112	0.00446	0.00186
Total Metals	Phosphorus, total	mg/L	0.05	0.155	0.079	<0.050
Total Metals	Potassium, total	mg/L	0.1	0.7	0.64	1.75
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	6.9	7.2	8
Total Metals	Silver, total	mg/L	5E-05	<0.000050	<0.000050	<0.000050
Total Metals	Sodium, total	mg/L	0.1	9.17	4.66	24.8
Total Metals	Strontium, total	mg/L	0.001	0.17	0.135	0.297
Total Metals	Sulfur, total	mg/L	3	5.3	26.3	22.8

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LAB ID				8062614-04	8062614-05	8062614-06
CLIENT ID				MW2	SB1	SB2
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	2E-05	<0.000020	<0.000020	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	0.021	0.184	0.0975
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	2E-05	0.000827	0.000617	0.0019
Total Metals	Vanadium, total	mg/L	0.001	0.0019	0.01	0.0045
Total Metals	Zinc, total	mg/L	0.004	0.0047	0.0124	0.0077
Total Metals	Zirconium, total	mg/L	0.0001	0.00016	0.00017	0.00019
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	<250	<250	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	<250	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Acridine	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benz(a)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(a)pyrene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(b+j)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050

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LAB ID				8062614-04	8062614-05	8062614-06
CLIENT ID				MW2	SB1	SB2
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(g,h,i)perylene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(k)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	2-Chloronaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Chrysene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Dibenz(a,h)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Fluoranthene	ug/L	0.03	<0.030	<0.030	<0.030
Polycyclic Aromatic Hydrocarbons (PAH)	Fluorene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Indeno(1,2,3-cd)pyrene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	1-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Naphthalene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Phenanthrene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Pyrene	ug/L	0.02	<0.020	<0.020	<0.020
Polycyclic Aromatic Hydrocarbons (PAH)	Quinoline	ug/L	0.05	<0.050	<0.050	<0.050

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Attention Rahim Gaidhar
Project P17-932
Project Info [none]

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

LAB ID				8062614-07	8062614-08	8062614-09
CLIENT ID				LE-1	LE-1	SW1
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Anions	Chloride	mg/L	0.1	3570	3600	23.9
Anions	Fluoride	mg/L	0.1	<1.00	<1.00	<0.10
Anions	Nitrate (as N)	mg/L	0.01	1.92	1.92	0.248
Anions	Nitrite (as N)	mg/L	0.01	<0.100	<0.100	<0.010
Anions	Sulfate	mg/L	1	1840	1860	88.3
General Parameters	Colour, True	CU	5	8.1	8.8	<5.0
General Parameters	Alkalinity, Total (as CaCO3)	mg/L	1	55.3	56.1	208
General Parameters	Alkalinity, Phenolphthalein (as Ca	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	55.3	56.1	208
General Parameters	Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0
General Parameters	Chromium, Hexavalent	mg/L	0.001			<0.0010
General Parameters	Solids, Total Suspended	mg/L	2	<2.0	<2.0	<2.0
General Parameters	Turbidity	NTU	0.1	<0.10	<0.10	<0.10
General Parameters	pH	pH units	0.1	7.03	7.14	7.39
General Parameters	Conductivity (EC)	uS/cm	2	12700	12700	620
Calculated Parameters	Chromium, Trivalent	mg/L	0.001			<0.00100
Calculated Parameters	Hardness, Total (as CaCO3)	mg/L	0.5	3300	3290	280
Dissolved Metals	Aluminum, dissolved	mg/L	0.005	0.0327	0.0468	<0.0050
Dissolved Metals	Antimony, dissolved	mg/L	0.0002	0.00023	0.00021	<0.00020
Dissolved Metals	Arsenic, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050

CARO Analytical Services
FINAL Analytical Testing Report
Work Order: 8062614
Report Date: 2018-07-06 16:08:38

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				8062614-07	8062614-08	8062614-09
CLIENT ID				LE-1	LE-1	SW1
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Dissolved Metals	Barium, dissolved	mg/L	0.005	0.0603	0.0597	0.0174
Dissolved Metals	Beryllium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Bismuth, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Dissolved Metals	Boron, dissolved	mg/L	0.005	0.315	0.321	0.0225
Dissolved Metals	Cadmium, dissolved	mg/L	1E-05	0.000906	0.000878	0.00002
Dissolved Metals	Calcium, dissolved	mg/L	0.2	924	938	91.7
Dissolved Metals	Chromium, dissolved	mg/L	0.0005	<0.00050	<0.00050	0.00078
Dissolved Metals	Cobalt, dissolved	mg/L	0.0001	0.00918	0.00911	<0.00010
Dissolved Metals	Copper, dissolved	mg/L	0.0004	0.00522	0.00521	0.00126
Dissolved Metals	Iron, dissolved	mg/L	0.01	<0.010	<0.010	<0.010
Dissolved Metals	Lead, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Dissolved Metals	Lithium, dissolved	mg/L	0.0001	0.00064	0.00068	0.00018
Dissolved Metals	Magnesium, dissolved	mg/L	0.01	239	230	12.3
Dissolved Metals	Manganese, dissolved	mg/L	0.0002	32.4	31.1	0.0742
Dissolved Metals	Mercury, dissolved	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Dissolved Metals	Molybdenum, dissolved	mg/L	0.0001	0.00185	0.0019	0.00102
Dissolved Metals	Nickel, dissolved	mg/L	0.0004	0.0134	0.0135	0.00105
Dissolved Metals	Phosphorus, dissolved	mg/L	0.05	<0.050	<0.050	<0.050
Dissolved Metals	Potassium, dissolved	mg/L	0.1	25.1	25	1
Dissolved Metals	Selenium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Dissolved Metals	Silicon, dissolved	mg/L	1	8.3	8.3	6.4

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LAB ID					8062614-07	8062614-08	8062614-09
CLIENT ID					LE-1	LE-1	SW1
DATE SAMPLED					2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED					2018-06-27	2018-06-27	2018-06-27
MATRIX					Water	Water	Water
General Method	Analyte	Units	MRL				
Dissolved Metals	Silver, dissolved	mg/L	5E-05	0.000088	0.000067	<0.000050	
Dissolved Metals	Sodium, dissolved	mg/L	0.1	1490	1440	11.4	
Dissolved Metals	Strontium, dissolved	mg/L	0.001	4.46	4.47	0.244	
Dissolved Metals	Sulfur, dissolved	mg/L	3	709	726	30.2	
Dissolved Metals	Tellurium, dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	
Dissolved Metals	Thallium, dissolved	mg/L	2E-05	0.000097	0.00009	<0.000020	
Dissolved Metals	Thorium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Dissolved Metals	Tin, dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	
Dissolved Metals	Titanium, dissolved	mg/L	0.005	<0.0050	<0.0050	<0.0050	
Dissolved Metals	Tungsten, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	
Dissolved Metals	Uranium, dissolved	mg/L	2E-05	0.000277	0.000265	0.00167	
Dissolved Metals	Vanadium, dissolved	mg/L	0.001	<0.0010	<0.0010	<0.0010	
Dissolved Metals	Zinc, dissolved	mg/L	0.004	0.0609	0.0608	0.0046	
Dissolved Metals	Zirconium, dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Aluminum, total	mg/L	0.005	0.148	0.148	0.0557	
Total Metals	Antimony, total	mg/L	0.0002	0.00037	0.00033	<0.00020	
Total Metals	Arsenic, total	mg/L	0.0005	0.00051	0.00052	<0.00050	
Total Metals	Barium, total	mg/L	0.005	0.0629	0.0633	0.0185	
Total Metals	Beryllium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Bismuth, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	
Total Metals	Boron, total	mg/L	0.005	0.35	0.361	0.0269	

CARO Analytical Services
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Attention Rahim Gaidhar
Project P17-932
Project Info [none]

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LAB ID				8062614-07	8062614-08	8062614-09
CLIENT ID				LE-1	LE-1	SW1
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Cadmium, total	mg/L	1E-05	0.00094	0.000951	0.000021
Total Metals	Calcium, total	mg/L	0.2	1030	1070	114
Total Metals	Chromium, total	mg/L	0.0005	<0.00050	0.00095	<0.00050
Total Metals	Cobalt, total	mg/L	0.0001	0.0101	0.0102	0.00028
Total Metals	Copper, total	mg/L	0.0004	0.00577	0.00603	0.0018
Total Metals	Iron, total	mg/L	0.01	0.026	0.027	0.049
Total Metals	Lead, total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Total Metals	Lithium, total	mg/L	0.0001	0.00067	0.00067	0.00025
Total Metals	Magnesium, total	mg/L	0.01	275	275	13.3
Total Metals	Manganese, total	mg/L	0.0002	39.3	38.8	0.128
Total Metals	Mercury, total	mg/L	1E-05	<0.000010	<0.000010	<0.000010
Total Metals	Molybdenum, total	mg/L	0.0001	0.00212	0.0021	0.00116
Total Metals	Nickel, total	mg/L	0.0004	0.0149	0.0152	0.00134
Total Metals	Phosphorus, total	mg/L	0.05	<0.050	<0.050	<0.050
Total Metals	Potassium, total	mg/L	0.1	24.6	25.6	1.1
Total Metals	Selenium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Silicon, total	mg/L	1	8.1	8.7	6.8
Total Metals	Silver, total	mg/L	5E-05	0.000079	0.000072	<0.000050
Total Metals	Sodium, total	mg/L	0.1	1850	1840	12.8
Total Metals	Strontium, total	mg/L	0.001	4.84	4.97	0.276
Total Metals	Sulfur, total	mg/L	3	713	738	30.8

CARO Analytical Services
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LAB ID				8062614-07	8062614-08	8062614-09
CLIENT ID				LE-1	LE-1	SW1
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Total Metals	Tellurium, total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Total Metals	Thallium, total	mg/L	2E-05	0.000098	0.000095	<0.000020
Total Metals	Thorium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Total Metals	Tin, total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Total Metals	Titanium, total	mg/L	0.005	<0.0050	<0.0050	<0.0050
Total Metals	Tungsten, total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Total Metals	Uranium, total	mg/L	2E-05	0.000308	0.000301	0.00199
Total Metals	Vanadium, total	mg/L	0.001	<0.0010	<0.0010	0.0011
Total Metals	Zinc, total	mg/L	0.004	0.0655	0.0682	<0.0040
Total Metals	Zirconium, total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
BCMOE Aggregate Hydrocarbons	EPHw10-19	ug/L	250	533	521	<250
BCMOE Aggregate Hydrocarbons	EPHw19-32	ug/L	250	392	362	<250
BCMOE Aggregate Hydrocarbons	LEPHw	ug/L	250	533	521	<250
BCMOE Aggregate Hydrocarbons	HEPHw	ug/L	250	392	362	<250
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Acenaphthylene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Acridine	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benz(a)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(a)pyrene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(b+j)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050

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Project P17-932
Project Info [none]

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LAB ID				8062614-07	8062614-08	8062614-09
CLIENT ID				LE-1	LE-1	SW1
DATE SAMPLED				2018-06-26	2018-06-26	2018-06-26
DATE RECEIVED				2018-06-27	2018-06-27	2018-06-27
MATRIX				Water	Water	Water
General Method	Analyte	Units	MRL			
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(g,h,i)perylene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo(k)fluoranthene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	2-Chloronaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Chrysene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Dibenz(a,h)anthracene	ug/L	0.01	<0.010	<0.010	<0.010
Polycyclic Aromatic Hydrocarbons (PAH)	Fluoranthene	ug/L	0.03	<0.030	<0.030	<0.030
Polycyclic Aromatic Hydrocarbons (PAH)	Fluorene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	Indeno(1,2,3-cd)pyrene	ug/L	0.05	<0.050	<0.050	<0.050
Polycyclic Aromatic Hydrocarbons (PAH)	1-Methylnaphthalene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	ug/L	0.1	0.181	0.152	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Naphthalene	ug/L	0.2	<0.200	<0.200	<0.200
Polycyclic Aromatic Hydrocarbons (PAH)	Phenanthrene	ug/L	0.1	<0.100	<0.100	<0.100
Polycyclic Aromatic Hydrocarbons (PAH)	Pyrene	ug/L	0.02	<0.020	<0.020	<0.020
Polycyclic Aromatic Hydrocarbons (PAH)	Quinoline	ug/L	0.05	<0.050	<0.050	<0.050

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 8062614

RECEIVED / TEMP 2018-06-27 13:35 / 20°C

REPORTED 2018-07-06 16:08

COC NUMBER June 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.

We've Got Chemistry



It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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



1-888-311-8846 | www.caro.ca

#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 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8062614-01) Matrix: Water Sampled: 2018-06-26 09:45					
Anions					
Chloride	41.4	0.10	mg/L	2018-06-29	
Fluoride	0.11	0.10	mg/L	2018-06-29	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	79.2	1.0	mg/L	2018-06-29	
General Parameters					
Alkalinity, Total (as CaCO ₃)	637	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO ₃)	637	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	9.0	5.0	CU	2018-06-28	
Conductivity (EC)	1310	2.0	µS/cm	2018-07-03	
pH	7.39	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	6.8	2.0	mg/L	2018-07-03	
Turbidity	10.3	0.10	NTU	2018-06-28	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	536	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	0.00376	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0742	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0645	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-07-06	
Calcium, dissolved	160	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00197	0.00010	mg/L	2018-07-06	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-07-06	
Iron, dissolved	1.86	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.0109	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	33.0	0.010	mg/L	2018-07-06	
Manganese, dissolved	1.91	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00063	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00335	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
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MW6 (8062614-01) | Matrix: Water | Sampled: 2018-06-26 09:45, Continued

Dissolved Metals, Continued

Potassium, dissolved	3.56	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	11.1	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	62.0	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.544	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	22.7	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.00657	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	0.00017	0.00010	mg/L	2018-07-06	

Total Metals

Aluminum, total	0.169	0.0050	mg/L	2018-07-04	
Antimony, total	0.00036	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00393	0.00050	mg/L	2018-07-04	
Barium, total	0.0813	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0745	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000139	0.000010	mg/L	2018-07-04	
Calcium, total	181	0.20	mg/L	2018-07-04	
Chromium, total	0.00063	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00234	0.00010	mg/L	2018-07-04	
Copper, total	0.00191	0.00040	mg/L	2018-07-04	
Iron, total	2.23	0.010	mg/L	2018-07-04	
Lead, total	0.00076	0.00020	mg/L	2018-07-04	
Lithium, total	0.0116	0.00010	mg/L	2018-07-04	
Magnesium, total	35.6	0.010	mg/L	2018-07-04	
Manganese, total	1.99	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00096	0.00010	mg/L	2018-07-04	
Nickel, total	0.00443	0.00040	mg/L	2018-07-04	
Phosphorus, total	< 0.050	0.050	mg/L	2018-07-04	
Potassium, total	3.74	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	11.7	1.0	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
MW6 (8062614-01) Matrix: Water Sampled: 2018-06-26 09:45, Continued					
Total Metals, Continued					
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	66.3	0.10	mg/L	2018-07-04	
Strontium, total	0.596	0.0010	mg/L	2018-07-04	
Sulfur, total	22.3	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	0.000042	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	0.00066	0.00020	mg/L	2018-07-04	
Titanium, total	0.0087	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.00733	0.000020	mg/L	2018-07-04	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-07-04	
Zinc, total	0.0085	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00026	0.00010	mg/L	2018-07-04	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-06-30	
EPHw19-32	270	250	µg/L	2018-06-30	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	270	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	79	60-140	%	2018-06-30	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-07-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-03	
Acridine	< 0.050	0.050	µg/L	2018-07-03	
Anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Chrysene	< 0.050	0.050	µg/L	2018-07-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-03	
Fluorene	< 0.050	0.050	µg/L	2018-07-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Naphthalene	< 0.200	0.200	µg/L	2018-07-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-03	
Pyrene	< 0.020	0.020	µg/L	2018-07-03	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW6 (8062614-01) | Matrix: Water | Sampled: 2018-06-26 09:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Quinoline	< 0.050	0.050	µg/L	2018-07-03	
Surrogate: Acridine-d9	74	50-140	%	2018-07-03	
Surrogate: Naphthalene-d8	97	50-140	%	2018-07-03	
Surrogate: Perylene-d12	94	50-140	%	2018-07-03	

MW3S (8062614-02) | Matrix: Water | Sampled: 2018-06-26 11:15

Anions

Chloride	9.58	0.10	mg/L	2018-06-29	
Fluoride	< 0.10	0.10	mg/L	2018-06-29	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	39.9	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	127	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	127	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	5.9	5.0	CU	2018-06-28	
Conductivity (EC)	349	2.0	µS/cm	2018-07-03	
pH	7.84	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	10.2	2.0	mg/L	2018-07-03	
Turbidity	6.77	0.10	NTU	2018-06-28	

Calculated Parameters

Hardness, Total (as CaCO3)	135	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	0.00101	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0262	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0177	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000015	0.000010	mg/L	2018-07-06	
Calcium, dissolved	43.1	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00055	0.00010	mg/L	2018-07-06	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-07-06	
Iron, dissolved	0.037	0.010	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
MW3S (8062614-02) Matrix: Water Sampled: 2018-06-26 11:15, Continued					
<i>Dissolved Metals, Continued</i>					
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.00010	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	6.71	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.345	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00553	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00123	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	
Potassium, dissolved	0.87	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	6.0	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	12.9	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.213	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	12.6	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000947	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	0.0858	0.0050	mg/L	2018-07-04	
Antimony, total	< 0.00020	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00110	0.00050	mg/L	2018-07-04	
Barium, total	0.0284	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0197	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000400	0.000010	mg/L	2018-07-04	
Calcium, total	46.5	0.20	mg/L	2018-07-04	
Chromium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00068	0.00010	mg/L	2018-07-04	
Copper, total	0.00050	0.00040	mg/L	2018-07-04	
Iron, total	0.133	0.010	mg/L	2018-07-04	
Lead, total	< 0.00020	0.00020	mg/L	2018-07-04	
Lithium, total	0.00016	0.00010	mg/L	2018-07-04	
Magnesium, total	7.25	0.010	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3S (8062614-02) | Matrix: Water | Sampled: 2018-06-26 11:15, Continued

Total Metals, Continued

Manganese, total	0.372	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00633	0.00010	mg/L	2018-07-04	
Nickel, total	0.00158	0.00040	mg/L	2018-07-04	
Phosphorus, total	0.068	0.050	mg/L	2018-07-04	
Potassium, total	0.95	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	6.4	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	14.3	0.10	mg/L	2018-07-04	
Strontium, total	0.241	0.0010	mg/L	2018-07-04	
Sulfur, total	13.8	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	0.000028	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	< 0.0050	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.00104	0.000020	mg/L	2018-07-04	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-07-04	
Zinc, total	0.0047	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00020	0.00010	mg/L	2018-07-04	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-30	
EPHw19-32	< 250	250	µg/L	2018-06-30	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	78	60-140	%	2018-06-30	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-07-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-03	
Acridine	< 0.050	0.050	µg/L	2018-07-03	
Anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Chrysene	< 0.050	0.050	µg/L	2018-07-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-03	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3S (8062614-02) | Matrix: Water | Sampled: 2018-06-26 11:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Fluoranthene	< 0.030	0.030	µg/L	2018-07-03	
Fluorene	< 0.050	0.050	µg/L	2018-07-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Naphthalene	< 0.200	0.200	µg/L	2018-07-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-03	
Pyrene	< 0.020	0.020	µg/L	2018-07-03	
Quinoline	< 0.050	0.050	µg/L	2018-07-03	
Surrogate: Acridine-d9	68	50-140	%	2018-07-03	
Surrogate: Naphthalene-d8	94	50-140	%	2018-07-03	
Surrogate: Perylene-d12	87	50-140	%	2018-07-03	

MW3D (8062614-03) | Matrix: Water | Sampled: 2018-06-26 11:45

Anions

Chloride	2.69	0.10	mg/L	2018-06-29	
Fluoride	0.12	0.10	mg/L	2018-06-29	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	20.3	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	104	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	104	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	8.0	5.0	CU	2018-06-28	
Conductivity (EC)	250	2.0	µS/cm	2018-07-03	
pH	7.56	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	8.2	2.0	mg/L	2018-07-03	
Turbidity	7.84	0.10	NTU	2018-06-28	

Calculated Parameters

Hardness, Total (as CaCO3)	95.9	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	0.00131	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0187	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
MW3D (8062614-03) Matrix: Water Sampled: 2018-06-26 11:45, Continued					
<i>Dissolved Metals, Continued</i>					
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0199	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000013	0.000010	mg/L	2018-07-06	
Calcium, dissolved	29.9	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00034	0.00010	mg/L	2018-07-06	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-07-06	
Iron, dissolved	0.089	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	5.11	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.287	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00610	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00112	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	0.058	0.050	mg/L	2018-07-06	
Potassium, dissolved	0.60	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	5.9	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	10.4	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.181	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	7.1	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000595	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	0.0909	0.0050	mg/L	2018-07-04	
Antimony, total	< 0.00020	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00134	0.00050	mg/L	2018-07-04	
Barium, total	0.0190	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0224	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000099	0.000010	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3D (8062614-03) | Matrix: Water | Sampled: 2018-06-26 11:45, Continued

Total Metals, Continued

Calcium, total	32.9	0.20	mg/L	2018-07-04	
Chromium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00042	0.00010	mg/L	2018-07-04	
Copper, total	< 0.00040	0.00040	mg/L	2018-07-04	
Iron, total	0.172	0.010	mg/L	2018-07-04	
Lead, total	< 0.00020	0.00020	mg/L	2018-07-04	
Lithium, total	0.00013	0.00010	mg/L	2018-07-04	
Magnesium, total	5.42	0.010	mg/L	2018-07-04	
Manganese, total	0.300	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00673	0.00010	mg/L	2018-07-04	
Nickel, total	0.00135	0.00040	mg/L	2018-07-04	
Phosphorus, total	0.090	0.050	mg/L	2018-07-04	
Potassium, total	0.62	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	6.0	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	10.9	0.10	mg/L	2018-07-04	
Strontium, total	0.200	0.0010	mg/L	2018-07-04	
Sulfur, total	7.2	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	< 0.000020	0.000020	mg/L	2018-07-04	
Thorium, total	0.00015	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	< 0.0050	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.000717	0.000020	mg/L	2018-07-04	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-07-04	
Zinc, total	< 0.0040	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00020	0.00010	mg/L	2018-07-04	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-30	
EPHw19-32	< 250	250	µg/L	2018-06-30	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	77	60-140	%	2018-06-30	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-07-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-03	
Acridine	< 0.050	0.050	µg/L	2018-07-03	
Anthracene	< 0.010	0.010	µg/L	2018-07-03	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW3D (8062614-03) | Matrix: Water | Sampled: 2018-06-26 11:45, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Chrysene	< 0.050	0.050	µg/L	2018-07-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-03	
Fluorene	< 0.050	0.050	µg/L	2018-07-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Naphthalene	< 0.200	0.200	µg/L	2018-07-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-03	
Pyrene	< 0.020	0.020	µg/L	2018-07-03	
Quinoline	< 0.050	0.050	µg/L	2018-07-03	
Surrogate: Acridine-d9	60	50-140	%	2018-07-03	
Surrogate: Naphthalene-d8	85	50-140	%	2018-07-03	
Surrogate: Perylene-d12	79	50-140	%	2018-07-03	

MW2 (8062614-04) | Matrix: Water | Sampled: 2018-06-26 12:45

Anions

Chloride	5.67	0.10	mg/L	2018-06-29	
Fluoride	0.11	0.10	mg/L	2018-06-29	
Nitrate (as N)	< 0.010	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	16.7	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	119	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	119	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	8.6	5.0	CU	2018-06-28	
Conductivity (EC)	287	2.0	µS/cm	2018-07-03	
pH	7.73	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	21.8	2.0	mg/L	2018-07-03	
Turbidity	13.4	0.10	NTU	2018-06-28	

Calculated Parameters

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
MW2 (8062614-04) Matrix: Water Sampled: 2018-06-26 12:45, Continued					
<i>Calculated Parameters, Continued</i>					
Hardness, Total (as CaCO ₃)	110	0.500	mg/L	N/A	
<i>Dissolved Metals</i>					
Aluminum, dissolved	0.0053	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	0.00185	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0282	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0186	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-07-06	
Calcium, dissolved	32.8	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00030	0.00010	mg/L	2018-07-06	
Copper, dissolved	< 0.00040	0.00040	mg/L	2018-07-06	
Iron, dissolved	0.230	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	6.75	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.445	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00356	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00072	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	0.105	0.050	mg/L	2018-07-06	
Potassium, dissolved	0.67	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	6.5	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	8.90	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.157	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	5.8	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000670	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	

Total Metals

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
MW2 (8062614-04) Matrix: Water Sampled: 2018-06-26 12:45, Continued					
<i>Total Metals, Continued</i>					
Aluminum, total	0.372	0.0050	mg/L	2018-07-04	
Antimony, total	0.00030	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00192	0.00050	mg/L	2018-07-04	
Barium, total	0.0305	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0215	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000032	0.000010	mg/L	2018-07-04	
Calcium, total	39.5	0.20	mg/L	2018-07-04	
Chromium, total	0.00064	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00059	0.00010	mg/L	2018-07-04	
Copper, total	0.00073	0.00040	mg/L	2018-07-04	
Iron, total	0.813	0.010	mg/L	2018-07-04	
Lead, total	0.00028	0.00020	mg/L	2018-07-04	
Lithium, total	0.00015	0.00010	mg/L	2018-07-04	
Magnesium, total	7.22	0.010	mg/L	2018-07-04	
Manganese, total	0.454	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00397	0.00010	mg/L	2018-07-04	
Nickel, total	0.00112	0.00040	mg/L	2018-07-04	
Phosphorus, total	0.155	0.050	mg/L	2018-07-04	
Potassium, total	0.70	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	6.9	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	9.17	0.10	mg/L	2018-07-04	
Strontium, total	0.170	0.0010	mg/L	2018-07-04	
Sulfur, total	5.3	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	< 0.000020	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	0.0210	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.000827	0.000020	mg/L	2018-07-04	
Vanadium, total	0.0019	0.0010	mg/L	2018-07-04	
Zinc, total	0.0047	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00016	0.00010	mg/L	2018-07-04	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-06-30	S09
EPHw19-32	< 250	250	µg/L	2018-06-30	S09
LEPHw	< 250	250	µg/L	N/A	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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MW2 (8062614-04) | Matrix: Water | Sampled: 2018-06-26 12:45, Continued

BCMOE Aggregate Hydrocarbons, Continued

HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)		60-140	%	2018-06-30	S09

Polycyclic Aromatic Hydrocarbons (PAH)

					S05
Acenaphthene	< 0.050	0.050	µg/L	2018-07-03	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-03	
Acridine	< 0.050	0.050	µg/L	2018-07-03	
Anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-03	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-03	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-03	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Chrysene	< 0.050	0.050	µg/L	2018-07-03	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-03	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-03	
Fluorene	< 0.050	0.050	µg/L	2018-07-03	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-03	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-03	
Naphthalene	< 0.200	0.200	µg/L	2018-07-03	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-03	
Pyrene	< 0.020	0.020	µg/L	2018-07-03	
Quinoline	< 0.050	0.050	µg/L	2018-07-03	

SB1 (8062614-05) | Matrix: Water | Sampled: 2018-06-26 10:45

Anions

Chloride	5.76	0.10	mg/L	2018-06-29	
Fluoride	0.13	0.10	mg/L	2018-06-29	
Nitrate (as N)	0.536	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	81.8	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	68.7	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	68.7	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	< 5.0	5.0	CU	2018-06-28	
Conductivity (EC)	345	2.0	µS/cm	2018-07-03	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8062614-05) Matrix: Water Sampled: 2018-06-26 10:45, Continued					
<i>General Parameters, Continued</i>					
pH	7.40	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	110	2.0	mg/L	2018-07-03	
Turbidity	51.9	0.10	NTU	2018-06-28	
<i>Calculated Parameters</i>					
Hardness, Total (as CaCO3)	140	0.500	mg/L	N/A	
<i>Dissolved Metals</i>					
Aluminum, dissolved	0.0057	0.0050	mg/L	2018-07-06	
Antimony, dissolved	0.00023	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0064	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0060	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000011	0.000010	mg/L	2018-07-06	
Calcium, dissolved	49.1	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Copper, dissolved	0.00074	0.00040	mg/L	2018-07-06	
Iron, dissolved	< 0.010	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	4.06	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.00049	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00042	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00079	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	
Potassium, dissolved	0.40	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	2.8	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	4.37	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.116	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	30.1	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000391	0.000020	mg/L	2018-07-06	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8062614-05) Matrix: Water Sampled: 2018-06-26 10:45, Continued					
<i>Dissolved Metals, Continued</i>					
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	3.37	0.0050	mg/L	2018-07-04	
Antimony, total	0.00030	0.00020	mg/L	2018-07-04	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-07-04	
Barium, total	0.0252	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0071	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000027	0.000010	mg/L	2018-07-04	
Calcium, total	57.1	0.20	mg/L	2018-07-04	
Chromium, total	0.00446	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00401	0.00010	mg/L	2018-07-04	
Copper, total	0.0111	0.00040	mg/L	2018-07-04	
Iron, total	4.05	0.010	mg/L	2018-07-04	
Lead, total	0.00456	0.00020	mg/L	2018-07-04	
Lithium, total	0.00125	0.00010	mg/L	2018-07-04	
Magnesium, total	5.34	0.010	mg/L	2018-07-04	
Manganese, total	0.120	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00049	0.00010	mg/L	2018-07-04	
Nickel, total	0.00446	0.00040	mg/L	2018-07-04	
Phosphorus, total	0.079	0.050	mg/L	2018-07-04	
Potassium, total	0.64	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	7.2	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	4.66	0.10	mg/L	2018-07-04	
Strontium, total	0.135	0.0010	mg/L	2018-07-04	
Sulfur, total	26.3	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	< 0.000020	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	0.184	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.000617	0.000020	mg/L	2018-07-04	
Vanadium, total	0.0100	0.0010	mg/L	2018-07-04	
Zinc, total	0.0124	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00017	0.00010	mg/L	2018-07-04	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SB1 (8062614-05) Matrix: Water Sampled: 2018-06-26 10:45, Continued					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2018-07-02	
EPHw19-32	< 250	250	µg/L	2018-07-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	94	60-140	%	2018-07-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-07-05	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-05	
Acridine	< 0.050	0.050	µg/L	2018-07-05	
Anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Chrysene	< 0.050	0.050	µg/L	2018-07-05	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-05	
Fluorene	< 0.050	0.050	µg/L	2018-07-05	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-05	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Naphthalene	< 0.200	0.200	µg/L	2018-07-05	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-05	
Pyrene	< 0.020	0.020	µg/L	2018-07-05	
Quinoline	< 0.050	0.050	µg/L	2018-07-05	
Surrogate: Acridine-d9	82	50-140	%	2018-07-05	
Surrogate: Naphthalene-d8	100	50-140	%	2018-07-05	
Surrogate: Perylene-d12	92	50-140	%	2018-07-05	

SB2 (8062614-06) | Matrix: Water | Sampled: 2018-06-26 10:30

Anions

Chloride	35.0	0.10	mg/L	2018-06-29	
Fluoride	< 0.10	0.10	mg/L	2018-06-29	
Nitrate (as N)	0.314	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	67.7	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	238	1.0	mg/L	2018-06-28	
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TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8062614-06) Matrix: Water Sampled: 2018-06-26 10:30, Continued					
General Parameters, Continued					
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO ₃)	238	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	< 5.0	5.0	CU	2018-06-28	
Conductivity (EC)	663	2.0	µS/cm	2018-07-03	
pH	7.17	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	48.8	2.0	mg/L	2018-07-03	
Turbidity	22.9	0.10	NTU	2018-06-28	

Calculated Parameters

Hardness, Total (as CaCO ₃)	264	0.500	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0094	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0198	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2018-07-06	
Calcium, dissolved	86.4	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Copper, dissolved	0.00079	0.00040	mg/L	2018-07-06	
Iron, dissolved	< 0.010	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.00013	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	11.6	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.00127	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00087	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00054	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	
Potassium, dissolved	1.51	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	5.7	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	24.1	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.263	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	23.8	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8062614-06) Matrix: Water Sampled: 2018-06-26 10:30, Continued					
<i>Dissolved Metals, Continued</i>					
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.00163	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	1.55	0.0050	mg/L	2018-07-04	
Antimony, total	< 0.00020	0.00020	mg/L	2018-07-04	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-07-04	
Barium, total	0.0172	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.0223	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000012	0.000010	mg/L	2018-07-04	
Calcium, total	96.5	0.20	mg/L	2018-07-04	
Chromium, total	0.00195	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00131	0.00010	mg/L	2018-07-04	
Copper, total	0.00583	0.00040	mg/L	2018-07-04	
Iron, total	1.77	0.010	mg/L	2018-07-04	
Lead, total	0.00057	0.00020	mg/L	2018-07-04	
Lithium, total	0.00072	0.00010	mg/L	2018-07-04	
Magnesium, total	12.6	0.010	mg/L	2018-07-04	
Manganese, total	0.0617	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00096	0.00010	mg/L	2018-07-04	
Nickel, total	0.00186	0.00040	mg/L	2018-07-04	
Phosphorus, total	< 0.050	0.050	mg/L	2018-07-04	
Potassium, total	1.75	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	8.0	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	24.8	0.10	mg/L	2018-07-04	
Strontium, total	0.297	0.0010	mg/L	2018-07-04	
Sulfur, total	22.8	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	< 0.000020	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SB2 (8062614-06) Matrix: Water Sampled: 2018-06-26 10:30, Continued					
<i>Total Metals, Continued</i>					
Titanium, total	0.0975	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.00190	0.000020	mg/L	2018-07-04	
Vanadium, total	0.0045	0.0010	mg/L	2018-07-04	
Zinc, total	0.0077	0.0040	mg/L	2018-07-04	
Zirconium, total	0.00019	0.00010	mg/L	2018-07-04	
<i>BCMOE Aggregate Hydrocarbons</i>					
EPHw10-19	< 250	250	µg/L	2018-07-02	
EPHw19-32	< 250	250	µg/L	2018-07-02	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	88	60-140	%	2018-07-02	
<i>Polycyclic Aromatic Hydrocarbons (PAH)</i>					
Acenaphthene	< 0.050	0.050	µg/L	2018-07-05	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-05	
Acridine	< 0.050	0.050	µg/L	2018-07-05	
Anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Chrysene	< 0.050	0.050	µg/L	2018-07-05	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-05	
Fluorene	< 0.050	0.050	µg/L	2018-07-05	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-05	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Naphthalene	< 0.200	0.200	µg/L	2018-07-05	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-05	
Pyrene	< 0.020	0.020	µg/L	2018-07-05	
Quinoline	< 0.050	0.050	µg/L	2018-07-05	
Surrogate: Acridine-d9	64	50-140	%	2018-07-05	
Surrogate: Naphthalene-d8	102	50-140	%	2018-07-05	
Surrogate: Perylene-d12	74	50-140	%	2018-07-05	

LE-1 (8062614-07) | Matrix: Water | Sampled: 2018-06-26 13:15

Anions

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8062614-07) Matrix: Water Sampled: 2018-06-26 13:15, Continued					
Anions, Continued					
Chloride	3570	0.10	mg/L	2018-06-29	
Fluoride	< 1.00	0.10	mg/L	2018-06-29	
Nitrate (as N)	1.92	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.100	0.010	mg/L	2018-06-29	
Sulfate	1840	1.0	mg/L	2018-06-29	
General Parameters					
Alkalinity, Total (as CaCO ₃)	55.3	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO ₃)	55.3	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	8.1	5.0	CU	2018-06-28	
Conductivity (EC)	12700	2.0	µS/cm	2018-07-03	
pH	7.03	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-07-03	
Turbidity	< 0.10	0.10	NTU	2018-06-28	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	3300	8.24	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	0.0327	0.0050	mg/L	2018-07-06	
Antimony, dissolved	0.00023	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0603	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.315	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000906	0.000010	mg/L	2018-07-06	
Calcium, dissolved	924	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00918	0.00010	mg/L	2018-07-06	
Copper, dissolved	0.00522	0.00040	mg/L	2018-07-06	
Iron, dissolved	< 0.010	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.00064	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	239	0.010	mg/L	2018-07-03	
Manganese, dissolved	32.4	0.00020	mg/L	2018-07-03	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00185	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.0134	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8062614-07) | Matrix: Water | Sampled: 2018-06-26 13:15, Continued

Dissolved Metals, Continued

Potassium, dissolved	25.1	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	8.3	1.0	mg/L	2018-07-06	
Silver, dissolved	0.000088	0.000050	mg/L	2018-07-06	
Sodium, dissolved	1490	0.10	mg/L	2018-07-03	
Strontium, dissolved	4.46	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	709	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	0.000097	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000277	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	0.0609	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	

Total Metals

Aluminum, total	0.148	0.0050	mg/L	2018-07-04	
Antimony, total	0.00037	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00051	0.00050	mg/L	2018-07-04	
Barium, total	0.0629	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.350	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000940	0.000010	mg/L	2018-07-04	
Calcium, total	1030	0.20	mg/L	2018-07-04	
Chromium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Cobalt, total	0.0101	0.00010	mg/L	2018-07-04	
Copper, total	0.00577	0.00040	mg/L	2018-07-04	
Iron, total	0.026	0.010	mg/L	2018-07-04	
Lead, total	< 0.00020	0.00020	mg/L	2018-07-04	
Lithium, total	0.00067	0.00010	mg/L	2018-07-04	
Magnesium, total	275	0.010	mg/L	2018-07-04	
Manganese, total	39.3	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00212	0.00010	mg/L	2018-07-04	
Nickel, total	0.0149	0.00040	mg/L	2018-07-04	
Phosphorus, total	< 0.050	0.050	mg/L	2018-07-04	
Potassium, total	24.6	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	8.1	1.0	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8062614-07) Matrix: Water Sampled: 2018-06-26 13:15, Continued					
Total Metals, Continued					
Silver, total	0.000079	0.000050	mg/L	2018-07-04	
Sodium, total	1850	0.10	mg/L	2018-07-04	
Strontium, total	4.84	0.0010	mg/L	2018-07-04	
Sulfur, total	713	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	0.000098	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	< 0.0050	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.000308	0.000020	mg/L	2018-07-04	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-07-04	
Zinc, total	0.0655	0.0040	mg/L	2018-07-04	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-07-04	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	533	250	µg/L	2018-07-02	
EPHw19-32	392	250	µg/L	2018-07-02	
LEPHw	533	250	µg/L	N/A	
HEPHw	392	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	84	60-140	%	2018-07-02	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2018-07-05	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-05	
Acridine	< 0.050	0.050	µg/L	2018-07-05	
Anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Chrysene	< 0.050	0.050	µg/L	2018-07-05	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-05	
Fluorene	< 0.050	0.050	µg/L	2018-07-05	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-05	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
2-Methylnaphthalene	0.181	0.100	µg/L	2018-07-05	
Naphthalene	< 0.200	0.200	µg/L	2018-07-05	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-05	
Pyrene	< 0.020	0.020	µg/L	2018-07-05	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8062614-07) | Matrix: Water | Sampled: 2018-06-26 13:15, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Quinoline	< 0.050	0.050	µg/L	2018-07-05	
Surrogate: Acridine-d9	87	50-140	%	2018-07-05	
Surrogate: Naphthalene-d8	97	50-140	%	2018-07-05	
Surrogate: Perylene-d12	55	50-140	%	2018-07-05	

LE-1 (8062614-08) | Matrix: Water | Sampled: 2018-06-26 13:20

Anions

Chloride	3600	0.10	mg/L	2018-06-29	
Fluoride	< 1.00	0.10	mg/L	2018-06-29	
Nitrate (as N)	1.92	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.100	0.010	mg/L	2018-06-29	
Sulfate	1860	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	56.1	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	56.1	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Colour, True	8.8	5.0	CU	2018-06-28	
Conductivity (EC)	12700	2.0	µS/cm	2018-07-03	
pH	7.14	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-07-03	
Turbidity	< 0.10	0.10	NTU	2018-06-28	

Calculated Parameters

Hardness, Total (as CaCO3)	3290	8.24	mg/L	N/A	
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Dissolved Metals

Aluminum, dissolved	0.0468	0.0050	mg/L	2018-07-06	
Antimony, dissolved	0.00021	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Barium, dissolved	0.0597	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.321	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000878	0.000010	mg/L	2018-07-06	
Calcium, dissolved	938	0.20	mg/L	2018-07-06	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	0.00911	0.00010	mg/L	2018-07-06	
Copper, dissolved	0.00521	0.00040	mg/L	2018-07-06	
Iron, dissolved	< 0.010	0.010	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
LE-1 (8062614-08) Matrix: Water Sampled: 2018-06-26 13:20, Continued					
<i>Dissolved Metals, Continued</i>					
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.00068	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	230	0.010	mg/L	2018-07-03	
Manganese, dissolved	31.1	0.00020	mg/L	2018-07-03	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00190	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.0135	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	
Potassium, dissolved	25.0	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	8.3	1.0	mg/L	2018-07-06	
Silver, dissolved	0.000067	0.000050	mg/L	2018-07-06	
Sodium, dissolved	1440	0.10	mg/L	2018-07-03	
Strontium, dissolved	4.47	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	726	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	0.000090	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.000265	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	0.0608	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	0.148	0.0050	mg/L	2018-07-04	
Antimony, total	0.00033	0.00020	mg/L	2018-07-04	
Arsenic, total	0.00052	0.00050	mg/L	2018-07-04	
Barium, total	0.0633	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	
Boron, total	0.361	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000951	0.000010	mg/L	2018-07-04	
Calcium, total	1070	0.20	mg/L	2018-07-04	
Chromium, total	0.00095	0.00050	mg/L	2018-07-04	
Cobalt, total	0.0102	0.00010	mg/L	2018-07-04	
Copper, total	0.00603	0.00040	mg/L	2018-07-04	
Iron, total	0.027	0.010	mg/L	2018-07-04	
Lead, total	< 0.00020	0.00020	mg/L	2018-07-04	
Lithium, total	0.00067	0.00010	mg/L	2018-07-04	
Magnesium, total	275	0.010	mg/L	2018-07-04	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8062614-08) | Matrix: Water | Sampled: 2018-06-26 13:20, Continued

Total Metals, Continued

Manganese, total	38.8	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00210	0.00010	mg/L	2018-07-04	
Nickel, total	0.0152	0.00040	mg/L	2018-07-04	
Phosphorus, total	< 0.050	0.050	mg/L	2018-07-04	
Potassium, total	25.6	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	8.7	1.0	mg/L	2018-07-04	
Silver, total	0.000072	0.000050	mg/L	2018-07-04	
Sodium, total	1840	0.10	mg/L	2018-07-04	
Strontium, total	4.97	0.0010	mg/L	2018-07-04	
Sulfur, total	738	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	0.000095	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	< 0.0050	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.000301	0.000020	mg/L	2018-07-04	
Vanadium, total	< 0.0010	0.0010	mg/L	2018-07-04	
Zinc, total	0.0682	0.0040	mg/L	2018-07-04	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-07-04	

BCMOE Aggregate Hydrocarbons

EPHw10-19	521	250	µg/L	2018-07-02	
EPHw19-32	362	250	µg/L	2018-07-02	
LEPHw	521	250	µg/L	N/A	
HEPHw	362	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	84	60-140	%	2018-07-02	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-07-05	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-05	
Acridine	< 0.050	0.050	µg/L	2018-07-05	
Anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Chrysene	< 0.050	0.050	µg/L	2018-07-05	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-05	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
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LE-1 (8062614-08) | Matrix: Water | Sampled: 2018-06-26 13:20, Continued

Polycyclic Aromatic Hydrocarbons (PAH), Continued

Fluoranthene	< 0.030	0.030	µg/L	2018-07-05	
Fluorene	< 0.050	0.050	µg/L	2018-07-05	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-05	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
2-Methylnaphthalene	0.152	0.100	µg/L	2018-07-05	
Naphthalene	< 0.200	0.200	µg/L	2018-07-05	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-05	
Pyrene	< 0.020	0.020	µg/L	2018-07-05	
Quinoline	< 0.050	0.050	µg/L	2018-07-05	
Surrogate: Acridine-d9	83	50-140	%	2018-07-05	
Surrogate: Naphthalene-d8	104	50-140	%	2018-07-05	
Surrogate: Perylene-d12	52	50-140	%	2018-07-05	

SW1 (8062614-09) | Matrix: Water | Sampled: 2018-06-26 12:15

Anions

Chloride	23.9	0.10	mg/L	2018-06-29	
Fluoride	< 0.10	0.10	mg/L	2018-06-29	
Nitrate (as N)	0.248	0.010	mg/L	2018-06-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2018-06-29	
Sulfate	88.3	1.0	mg/L	2018-06-29	

General Parameters

Alkalinity, Total (as CaCO3)	208	1.0	mg/L	2018-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Bicarbonate (as CaCO3)	208	1.0	mg/L	2018-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2018-06-28	
Chromium, Hexavalent	< 0.0010	0.0010	mg/L	2018-07-04	
Colour, True	< 5.0	5.0	CU	2018-06-28	
Conductivity (EC)	620	2.0	µS/cm	2018-07-03	
pH	7.39	0.10	pH units	2018-07-03	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2018-07-03	
Turbidity	< 0.10	0.10	NTU	2018-06-28	

Calculated Parameters

Chromium, Trivalent	< 0.00100	0.00100	mg/L	N/A	
Hardness, Total (as CaCO3)	280	0.500	mg/L	N/A	

Dissolved Metals

Aluminum, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8062614-09) Matrix: Water Sampled: 2018-06-26 12:15, Continued					
<i>Dissolved Metals, Continued</i>					
Barium, dissolved	0.0174	0.0050	mg/L	2018-07-06	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Boron, dissolved	0.0225	0.0050	mg/L	2018-07-06	
Cadmium, dissolved	0.000020	0.000010	mg/L	2018-07-06	
Calcium, dissolved	91.7	0.20	mg/L	2018-07-06	
Chromium, dissolved	0.00078	0.00050	mg/L	2018-07-06	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Copper, dissolved	0.00126	0.00040	mg/L	2018-07-06	
Iron, dissolved	< 0.010	0.010	mg/L	2018-07-06	
Lead, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Lithium, dissolved	0.00018	0.00010	mg/L	2018-07-06	
Magnesium, dissolved	12.3	0.010	mg/L	2018-07-06	
Manganese, dissolved	0.0742	0.00020	mg/L	2018-07-06	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2018-07-03	
Molybdenum, dissolved	0.00102	0.00010	mg/L	2018-07-06	
Nickel, dissolved	0.00105	0.00040	mg/L	2018-07-06	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2018-07-06	
Potassium, dissolved	1.00	0.10	mg/L	2018-07-06	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Silicon, dissolved	6.4	1.0	mg/L	2018-07-06	
Silver, dissolved	< 0.000050	0.000050	mg/L	2018-07-06	
Sodium, dissolved	11.4	0.10	mg/L	2018-07-06	
Strontium, dissolved	0.244	0.0010	mg/L	2018-07-06	
Sulfur, dissolved	30.2	3.0	mg/L	2018-07-06	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2018-07-06	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2018-07-06	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
Tin, dissolved	< 0.00020	0.00020	mg/L	2018-07-06	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2018-07-06	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Uranium, dissolved	0.00167	0.000020	mg/L	2018-07-06	
Vanadium, dissolved	< 0.0010	0.0010	mg/L	2018-07-06	
Zinc, dissolved	0.0046	0.0040	mg/L	2018-07-06	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2018-07-06	
<i>Total Metals</i>					
Aluminum, total	0.0557	0.0050	mg/L	2018-07-04	
Antimony, total	< 0.00020	0.00020	mg/L	2018-07-04	
Arsenic, total	< 0.00050	0.00050	mg/L	2018-07-04	
Barium, total	0.0185	0.0050	mg/L	2018-07-04	
Beryllium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Bismuth, total	< 0.00010	0.00010	mg/L	2018-07-04	

TEST RESULTS

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
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SW1 (8062614-09) | Matrix: Water | Sampled: 2018-06-26 12:15, Continued

Total Metals, Continued

Boron, total	0.0269	0.0050	mg/L	2018-07-04	
Cadmium, total	0.000021	0.000010	mg/L	2018-07-04	
Calcium, total	114	0.20	mg/L	2018-07-04	
Chromium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Cobalt, total	0.00028	0.00010	mg/L	2018-07-04	
Copper, total	0.00180	0.00040	mg/L	2018-07-04	
Iron, total	0.049	0.010	mg/L	2018-07-04	
Lead, total	< 0.00020	0.00020	mg/L	2018-07-04	
Lithium, total	0.00025	0.00010	mg/L	2018-07-04	
Magnesium, total	13.3	0.010	mg/L	2018-07-04	
Manganese, total	0.128	0.00020	mg/L	2018-07-04	
Mercury, total	< 0.000010	0.000010	mg/L	2018-07-04	
Molybdenum, total	0.00116	0.00010	mg/L	2018-07-04	
Nickel, total	0.00134	0.00040	mg/L	2018-07-04	
Phosphorus, total	< 0.050	0.050	mg/L	2018-07-04	
Potassium, total	1.10	0.10	mg/L	2018-07-04	
Selenium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Silicon, total	6.8	1.0	mg/L	2018-07-04	
Silver, total	< 0.000050	0.000050	mg/L	2018-07-04	
Sodium, total	12.8	0.10	mg/L	2018-07-04	
Strontium, total	0.276	0.0010	mg/L	2018-07-04	
Sulfur, total	30.8	3.0	mg/L	2018-07-04	
Tellurium, total	< 0.00050	0.00050	mg/L	2018-07-04	
Thallium, total	< 0.000020	0.000020	mg/L	2018-07-04	
Thorium, total	< 0.00010	0.00010	mg/L	2018-07-04	
Tin, total	< 0.00020	0.00020	mg/L	2018-07-04	
Titanium, total	< 0.0050	0.0050	mg/L	2018-07-04	
Tungsten, total	< 0.0010	0.0010	mg/L	2018-07-04	
Uranium, total	0.00199	0.000020	mg/L	2018-07-04	
Vanadium, total	0.0011	0.0010	mg/L	2018-07-04	
Zinc, total	< 0.0040	0.0040	mg/L	2018-07-04	
Zirconium, total	< 0.00010	0.00010	mg/L	2018-07-04	

BCMOE Aggregate Hydrocarbons

EPHw10-19	< 250	250	µg/L	2018-07-03	
EPHw19-32	< 250	250	µg/L	2018-07-03	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	92	60-140	%	2018-07-03	

Polycyclic Aromatic Hydrocarbons (PAH)

Acenaphthene	< 0.050	0.050	µg/L	2018-07-05	
Acenaphthylene	< 0.200	0.200	µg/L	2018-07-05	

TEST RESULTS

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WORK ORDER REPORTED 8062614
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Analyte	Result	RL	Units	Analyzed	Qualifier
SW1 (8062614-09) Matrix: Water Sampled: 2018-06-26 12:15, Continued					
<i>Polycyclic Aromatic Hydrocarbons (PAH), Continued</i>					
Acridine	< 0.050	0.050	µg/L	2018-07-05	
Anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benz(a)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2018-07-05	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2018-07-05	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2018-07-05	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Chrysene	< 0.050	0.050	µg/L	2018-07-05	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2018-07-05	
Fluoranthene	< 0.030	0.030	µg/L	2018-07-05	
Fluorene	< 0.050	0.050	µg/L	2018-07-05	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2018-07-05	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2018-07-05	
Naphthalene	< 0.200	0.200	µg/L	2018-07-05	
Phenanthrene	< 0.100	0.100	µg/L	2018-07-05	
Pyrene	< 0.020	0.020	µg/L	2018-07-05	
Quinoline	< 0.050	0.050	µg/L	2018-07-05	
Surrogate: Acridine-d9	33	50-140	%	2018-07-05	S02
Surrogate: Naphthalene-d8	98	50-140	%	2018-07-05	
Surrogate: Perylene-d12	59	50-140	%	2018-07-05	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

S02 Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

S05 The surrogate recoveries for this sample are not available.

S09 The surrogate recovery for this sample is outside of established control limits .

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Allterra Construction
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WORK ORDER REPORTED 8062614
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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, dissolved in Water	EPA 245.7*	BrCl ₂ Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	Richmond
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
Anions, Batch B8F2411									
Blank (B8F2411-BLK1)			Prepared: 2018-06-29, Analyzed: 2018-06-29						
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							
Blank (B8F2411-BLK2)			Prepared: 2018-06-30, Analyzed: 2018-06-30						
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							
Blank (B8F2411-BLK3)			Prepared: 2018-06-30, Analyzed: 2018-06-30						
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 (B8F2411-BS1)			Prepared: 2018-06-29, Analyzed: 2018-06-29						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.63	0.10 mg/L	4.00		91	88-108			
Nitrate (as N)	3.93	0.010 mg/L	4.00		98	93-108			
Nitrite (as N)	1.97	0.010 mg/L	2.00		99	85-114			
Sulfate	14.7	1.0 mg/L	16.0		92	91-109			
LCS (B8F2411-BS2)			Prepared: 2018-06-30, Analyzed: 2018-06-30						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.70	0.10 mg/L	4.00		93	88-108			
Nitrate (as N)	3.94	0.010 mg/L	4.00		98	93-108			
Nitrite (as N)	1.96	0.010 mg/L	2.00		98	85-114			
Sulfate	15.1	1.0 mg/L	16.0		94	91-109			
LCS (B8F2411-BS3)			Prepared: 2018-06-30, Analyzed: 2018-06-30						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B8F2411, Continued									
LCS (B8F2411-BS3), Continued				Prepared: 2018-06-30, Analyzed: 2018-06-30					
Fluoride	3.66	0.10 mg/L	4.00		92	88-108			
Nitrate (as N)	3.98	0.010 mg/L	4.00		99	93-108			
Nitrite (as N)	1.96	0.010 mg/L	2.00		98	85-114			
Sulfate	14.7	1.0 mg/L	16.0		92	91-109			

BCMOE Aggregate Hydrocarbons, Batch B8F2472

Blank (B8F2472-BLK1)				Prepared: 2018-06-29, Analyzed: 2018-06-30					
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	318	µg/L	442		72	60-140			
LCS (B8F2472-BS2)				Prepared: 2018-06-29, Analyzed: 2018-06-30					
EPHw10-19	13000	250 µg/L	15500		84	70-130			
EPHw19-32	17800	250 µg/L	22100		81	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	323	µg/L	442		73	60-140			

BCMOE Aggregate Hydrocarbons, Batch B8G0003

Blank (B8G0003-BLK1)				Prepared: 2018-07-01, Analyzed: 2018-07-02					
EPHw10-19	< 250	250 µg/L							
EPHw19-32	< 250	250 µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	385	µg/L	442		87	60-140			
LCS (B8G0003-BS2)				Prepared: 2018-07-01, Analyzed: 2018-07-02					
EPHw10-19	13100	250 µg/L	15500		85	70-130			
EPHw19-32	19100	250 µg/L	22100		86	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	443	µg/L	442		100	60-140			

Dissolved Metals, Batch B8F2528

Blank (B8F2528-BLK1)				Prepared: 2018-07-06, Analyzed: 2018-07-06					
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							
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							
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							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B8F2528, Continued									
Blank (B8F2528-BLK1), Continued					Prepared: 2018-07-06, Analyzed: 2018-07-06				
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 (B8F2528-BS1)					Prepared: 2018-07-06, Analyzed: 2018-07-06				
Aluminum, dissolved	0.0212	0.0050 mg/L	0.0200		106	80-120			
Antimony, dissolved	0.0188	0.00020 mg/L	0.0200		94	80-120			
Arsenic, dissolved	0.0179	0.00050 mg/L	0.0200		89	80-120			
Barium, dissolved	0.0171	0.0050 mg/L	0.0200		86	80-120			
Beryllium, dissolved	0.0176	0.00010 mg/L	0.0200		88	80-120			
Bismuth, dissolved	0.0180	0.00010 mg/L	0.0200		90	80-120			
Boron, dissolved	0.0189	0.0050 mg/L	0.0200		94	80-120			
Cadmium, dissolved	0.0182	0.000010 mg/L	0.0200		91	80-120			
Calcium, dissolved	1.90	0.20 mg/L	2.00		95	80-120			
Chromium, dissolved	0.0174	0.00050 mg/L	0.0200		87	80-120			
Cobalt, dissolved	0.0177	0.00010 mg/L	0.0200		88	80-120			
Copper, dissolved	0.0185	0.00040 mg/L	0.0200		92	80-120			
Iron, dissolved	1.80	0.010 mg/L	2.00		90	80-120			
Lead, dissolved	0.0181	0.00020 mg/L	0.0200		90	80-120			
Lithium, dissolved	0.0186	0.00010 mg/L	0.0200		93	80-120			
Magnesium, dissolved	1.92	0.010 mg/L	2.00		96	80-120			
Manganese, dissolved	0.0176	0.00020 mg/L	0.0200		88	80-120			
Molybdenum, dissolved	0.0175	0.00010 mg/L	0.0200		88	80-120			
Nickel, dissolved	0.0179	0.00040 mg/L	0.0200		89	80-120			
Phosphorus, dissolved	1.82	0.050 mg/L	2.00		91	80-120			
Potassium, dissolved	1.88	0.10 mg/L	2.00		94	80-120			
Selenium, dissolved	0.0197	0.00050 mg/L	0.0200		98	80-120			
Silicon, dissolved	2.0	1.0 mg/L	2.00		98	80-120			
Silver, dissolved	0.0177	0.000050 mg/L	0.0200		89	80-120			
Sodium, dissolved	1.96	0.10 mg/L	2.00		98	80-120			
Strontium, dissolved	0.0173	0.0010 mg/L	0.0200		86	80-120			
Sulfur, dissolved	4.6	3.0 mg/L	5.00		92	80-120			
Tellurium, dissolved	0.0188	0.00050 mg/L	0.0200		94	80-120			
Thallium, dissolved	0.0182	0.000020 mg/L	0.0200		91	80-120			
Thorium, dissolved	0.0177	0.00010 mg/L	0.0200		89	80-120			
Tin, dissolved	0.0185	0.00020 mg/L	0.0200		92	80-120			
Titanium, dissolved	0.0185	0.0050 mg/L	0.0200		92	80-120			
Tungsten, dissolved	0.0172	0.0010 mg/L	0.0200		86	80-120			
Uranium, dissolved	0.0224	0.000020 mg/L	0.0200		112	80-120			
Vanadium, dissolved	0.0168	0.0010 mg/L	0.0200		84	80-120			
Zinc, dissolved	0.0206	0.0040 mg/L	0.0200		103	80-120			
Zirconium, dissolved	0.0194	0.00010 mg/L	0.0200		97	80-120			

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Dissolved Metals, Batch B8F2528, Continued									
Reference (B8F2528-SRM1)				Prepared: 2018-07-06, Analyzed: 2018-07-06					
Aluminum, dissolved	0.221	0.0050 mg/L	0.233		95	79-114			
Antimony, dissolved	0.0417	0.00020 mg/L	0.0430		97	89-123			
Arsenic, dissolved	0.423	0.00050 mg/L	0.438		97	87-113			
Barium, dissolved	3.06	0.0050 mg/L	3.35		91	85-114			
Beryllium, dissolved	0.204	0.00010 mg/L	0.213		96	79-122			
Boron, dissolved	1.59	0.0050 mg/L	1.74		91	79-117			
Cadmium, dissolved	0.212	0.000010 mg/L	0.224		95	89-112			
Calcium, dissolved	7.35	0.20 mg/L	7.69		96	85-120			
Chromium, dissolved	0.413	0.00050 mg/L	0.437		94	87-113			
Cobalt, dissolved	0.122	0.00010 mg/L	0.128		95	90-117			
Copper, dissolved	0.802	0.00040 mg/L	0.844		95	90-115			
Iron, dissolved	1.20	0.010 mg/L	1.29		93	86-112			
Lead, dissolved	0.106	0.00020 mg/L	0.112		95	90-113			
Lithium, dissolved	0.101	0.00010 mg/L	0.104		97	77-127			
Magnesium, dissolved	6.64	0.010 mg/L	6.92		96	84-116			
Manganese, dissolved	0.324	0.00020 mg/L	0.345		94	85-113			
Molybdenum, dissolved	0.393	0.00010 mg/L	0.426		92	87-112			
Nickel, dissolved	0.802	0.00040 mg/L	0.840		95	90-114			
Phosphorus, dissolved	0.450	0.050 mg/L	0.495		91	74-119			
Potassium, dissolved	3.11	0.10 mg/L	3.19		98	78-119			
Selenium, dissolved	0.0343	0.00050 mg/L	0.0331		103	89-123			
Sodium, dissolved	18.5	0.10 mg/L	19.1		97	81-117			
Strontium, dissolved	0.831	0.0010 mg/L	0.916		91	82-111			
Thallium, dissolved	0.0367	0.000020 mg/L	0.0393		93	90-113			
Uranium, dissolved	0.241	0.000020 mg/L	0.266		91	87-113			
Vanadium, dissolved	0.796	0.0010 mg/L	0.869		92	85-110			
Zinc, dissolved	0.853	0.0040 mg/L	0.881		97	88-114			

Dissolved Metals, Batch B8G0044

Blank (B8G0044-BLK1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Mercury, dissolved	< 0.000010	0.000010 mg/L							
Duplicate (B8G0044-DUP1)				Source: 8062614-03		Prepared: 2018-07-03, Analyzed: 2018-07-03			
Mercury, dissolved	< 0.000010	0.000010 mg/L		< 0.000010			20		
Matrix Spike (B8G0044-MS1)				Source: 8062614-04		Prepared: 2018-07-03, Analyzed: 2018-07-03			
Mercury, dissolved	0.000221	0.000010 mg/L	0.000250	< 0.000010	89	70-130			
Reference (B8G0044-SRM1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Mercury, dissolved	0.00429	0.000010 mg/L	0.00489		88	80-120			

General Parameters, Batch B8F2284

Blank (B8F2284-BLK1)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Turbidity	< 0.10	0.10 NTU							

General Parameters, Batch B8F2360

Blank (B8F2360-BLK1)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
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							

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General Parameters, Batch B8F2360, Continued									
Blank (B8F2360-BLK1), Continued				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Blank (B8F2360-BLK2)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
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							
LCS (B8F2360-BS1)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Alkalinity, Total (as CaCO ₃)	102	1.0 mg/L	100		102	92-106			
LCS (B8F2360-BS2)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Alkalinity, Total (as CaCO ₃)	9.6	1.0 mg/L	10.0		96	92-106			
General Parameters, Batch B8F2418									
Blank (B8F2418-BLK1)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Colour, True	< 5.0	5.0 CU							
Blank (B8F2418-BLK2)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Colour, True	< 5.0	5.0 CU							
LCS (B8F2418-BS1)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Colour, True	10	5.0 CU	10.0		105	85-115			
LCS (B8F2418-BS2)				Prepared: 2018-06-28, Analyzed: 2018-06-28					
Colour, True	9.0	5.0 CU	10.0		90	85-115			
General Parameters, Batch B8G0043									
Blank (B8G0043-BLK1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Solids, Total Suspended	< 2.0	2.0 mg/L							
LCS (B8G0043-BS1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Solids, Total Suspended	98.0	10.0 mg/L	100		98	83-107			
General Parameters, Batch B8G0046									
Reference (B8G0046-SRM1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
pH	6.13	0.10 pH units	6.20		99	97.5-102.5			
Reference (B8G0046-SRM2)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
pH	6.13	0.10 pH units	6.20		99	97.5-102.5			
General Parameters, Batch B8G0112									
Blank (B8G0112-BLK1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B8G0112-BS1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Conductivity (EC)	147	2.0 µS/cm	147		100	90-110			
Reference (B8G0112-SRM1)				Prepared: 2018-07-03, Analyzed: 2018-07-03					
Conductivity (EC)	1010	2.0 µS/cm	1000		101	95-105			

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General Parameters, Batch B8G0145

Blank (B8G0145-BLK1)			Prepared: 2018-07-04, Analyzed: 2018-07-04						
Chromium, Hexavalent	< 0.0010	0.0010 mg/L							
LCS (B8G0145-BS1)			Prepared: 2018-07-04, Analyzed: 2018-07-04						
Chromium, Hexavalent	0.100	0.0010 mg/L	0.100		100	90-111			
Matrix Spike (B8G0145-MS1)			Prepared: 2018-07-04, Analyzed: 2018-07-04						
Chromium, Hexavalent	0.0978	0.0010 mg/L	0.100	< 0.0010	98	70-116			

Polycyclic Aromatic Hydrocarbons (PAH), Batch B8F2472

Blank (B8F2472-BLK1)			Prepared: 2018-06-29, Analyzed: 2018-07-03						
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	2.39	µg/L	4.44		54	50-140			
Surrogate: Naphthalene-d8	4.06	µg/L	4.47		91	50-140			
Surrogate: Perylene-d12	4.22	µg/L	4.47		94	50-140			

LCS (B8F2472-BS1)			Prepared: 2018-06-29, Analyzed: 2018-07-02						
Acenaphthene	4.46	0.050 µg/L	4.40		101	58-125			
Acenaphthylene	4.44	0.200 µg/L	4.40		101	54-128			
Acridine	3.48	0.050 µg/L	4.44		78	50-112			
Anthracene	4.26	0.010 µg/L	4.44		96	66-125			
Benz(a)anthracene	4.00	0.010 µg/L	4.44		90	59-123			
Benzo(a)pyrene	4.40	0.010 µg/L	4.40		100	62-116			
Benzo(b+j)fluoranthene	8.62	0.050 µg/L	8.89		97	69-121			
Benzo(g,h,i)perylene	4.79	0.050 µg/L	4.40		109	58-129			
Benzo(k)fluoranthene	4.38	0.050 µg/L	4.44		99	67-128			
2-Chloronaphthalene	4.21	0.100 µg/L	4.44		95	50-140			
Chrysene	4.17	0.050 µg/L	4.42		94	58-125			
Dibenz(a,h)anthracene	4.19	0.010 µg/L	4.42		95	58-126			
Fluoranthene	4.22	0.030 µg/L	4.36		97	67-133			
Fluorene	4.15	0.050 µg/L	4.40		94	55-122			
Indeno(1,2,3-cd)pyrene	4.08	0.050 µg/L	4.44		92	62-126			
1-Methylnaphthalene	4.21	0.100 µg/L	4.38		96	53-125			
2-Methylnaphthalene	4.16	0.100 µg/L	4.36		95	52-122			
Naphthalene	3.78	0.200 µg/L	4.44		85	50-130			

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8F2472, Continued									
LCS (B8F2472-BS1), Continued					Prepared: 2018-06-29, Analyzed: 2018-07-02				
Phenanthrene	4.13	0.100 µg/L	4.40		94	67-127			
Pyrene	4.27	0.020 µg/L	4.44		96	68-133			
Quinoline	5.89	0.050 µg/L	4.44		133	51-140			
Surrogate: Acridine-d9	3.19	µg/L	4.44		72	50-140			
Surrogate: Naphthalene-d8	4.69	µg/L	4.47		105	50-140			
Surrogate: Perylene-d12	4.48	µg/L	4.47		100	50-140			
LCS Dup (B8F2472-BSD1)					Prepared: 2018-06-29, Analyzed: 2018-07-02				
Acenaphthene	4.00	0.050 µg/L	4.40		91	58-125	11	16	
Acenaphthylene	4.02	0.200 µg/L	4.40		91	54-128	10	16	
Acridine	3.48	0.050 µg/L	4.44		78	50-112	< 1	26	
Anthracene	4.12	0.010 µg/L	4.44		93	66-125	3	14	
Benz(a)anthracene	3.80	0.010 µg/L	4.44		86	59-123	5	23	
Benzo(a)pyrene	4.20	0.010 µg/L	4.40		96	62-116	5	16	
Benzo(b+j)fluoranthene	8.20	0.050 µg/L	8.89		92	69-121	5	14	
Benzo(g,h,i)perylene	4.43	0.050 µg/L	4.40		101	58-129	8	25	
Benzo(k)fluoranthene	4.16	0.050 µg/L	4.44		94	67-128	5	18	
2-Chloronaphthalene	3.78	0.100 µg/L	4.44		85	50-140	11	30	
Chrysene	3.96	0.050 µg/L	4.42		90	58-125	5	24	
Dibenz(a,h)anthracene	3.92	0.010 µg/L	4.42		89	58-126	7	23	
Fluoranthene	4.12	0.030 µg/L	4.36		95	67-133	2	18	
Fluorene	3.74	0.050 µg/L	4.40		85	55-122	10	16	
Indeno(1,2,3-cd)pyrene	3.94	0.050 µg/L	4.44		89	62-126	3	22	
1-Methylnaphthalene	3.83	0.100 µg/L	4.38		88	53-125	9	16	
2-Methylnaphthalene	3.82	0.100 µg/L	4.36		88	52-122	9	17	
Naphthalene	3.53	0.200 µg/L	4.44		79	50-130	7	18	
Phenanthrene	4.01	0.100 µg/L	4.40		91	67-127	3	14	
Pyrene	4.20	0.020 µg/L	4.44		94	68-133	2	18	
Quinoline	5.81	0.050 µg/L	4.44		131	51-140	1	12	
Surrogate: Acridine-d9	3.08	µg/L	4.44		69	50-140			
Surrogate: Naphthalene-d8	3.99	µg/L	4.47		89	50-140			
Surrogate: Perylene-d12	4.11	µg/L	4.47		92	50-140			

Polycyclic Aromatic Hydrocarbons (PAH), Batch B8G0003

Blank (B8G0003-BLK1)			Prepared: 2018-07-01, Analyzed: 2018-07-04						
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							

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B8G0003, Continued									
Blank (B8G0003-BLK1), Continued					Prepared: 2018-07-01, Analyzed: 2018-07-04				
Pyrene	< 0.020	0.020 µg/L							
Quinoline	< 0.050	0.050 µg/L							
Surrogate: Acridine-d9	3.19	µg/L	4.44		72	50-140			
Surrogate: Naphthalene-d8	4.13	µg/L	4.47		92	50-140			
Surrogate: Perylene-d12	3.66	µg/L	4.47		82	50-140			
LCS (B8G0003-BS1)					Prepared: 2018-07-01, Analyzed: 2018-07-04				
Acenaphthene	3.93	0.050 µg/L	4.40		89	58-125			
Acenaphthylene	3.94	0.200 µg/L	4.40		90	54-128			
Acridine	3.15	0.050 µg/L	4.44		71	50-112			
Anthracene	3.59	0.010 µg/L	4.44		81	66-125			
Benz(a)anthracene	4.89	0.010 µg/L	4.44		110	59-123			
Benzo(a)pyrene	3.62	0.010 µg/L	4.40		82	62-116			
Benzo(b+j)fluoranthene	7.78	0.050 µg/L	8.89		88	69-121			
Benzo(g,h,i)perylene	3.43	0.050 µg/L	4.40		78	58-129			
Benzo(k)fluoranthene	4.13	0.050 µg/L	4.44		93	67-128			
2-Chloronaphthalene	4.03	0.100 µg/L	4.44		91	50-140			
Chrysene	3.75	0.050 µg/L	4.42		85	58-125			
Dibenz(a,h)anthracene	3.23	0.010 µg/L	4.42		73	58-126			
Fluoranthene	3.91	0.030 µg/L	4.36		90	67-133			
Fluorene	3.82	0.050 µg/L	4.40		87	55-122			
Indeno(1,2,3-cd)pyrene	3.16	0.050 µg/L	4.44		71	62-126			
1-Methylnaphthalene	3.65	0.100 µg/L	4.38		83	53-125			
2-Methylnaphthalene	3.61	0.100 µg/L	4.36		83	52-122			
Naphthalene	3.52	0.200 µg/L	4.44		79	50-130			
Phenanthrene	4.02	0.100 µg/L	4.40		91	67-127			
Pyrene	3.88	0.020 µg/L	4.44		87	68-133			
Quinoline	5.75	0.050 µg/L	4.44		129	51-140			
Surrogate: Acridine-d9	3.20	µg/L	4.44		72	50-140			
Surrogate: Naphthalene-d8	3.75	µg/L	4.47		84	50-140			
Surrogate: Perylene-d12	4.16	µg/L	4.47		93	50-140			
LCS Dup (B8G0003-BS1)					Prepared: 2018-07-01, Analyzed: 2018-07-04				
Acenaphthene	4.32	0.050 µg/L	4.40		98	58-125	9	16	
Acenaphthylene	4.41	0.200 µg/L	4.40		100	54-128	11	16	
Acridine	3.67	0.050 µg/L	4.44		83	50-112	15	26	
Anthracene	3.90	0.010 µg/L	4.44		88	66-125	8	14	
Benz(a)anthracene	4.85	0.010 µg/L	4.44		109	59-123	< 1	23	
Benzo(a)pyrene	3.88	0.010 µg/L	4.40		88	62-116	7	16	
Benzo(b+j)fluoranthene	7.00	0.050 µg/L	8.89		79	69-121	11	14	
Benzo(g,h,i)perylene	3.25	0.050 µg/L	4.40		74	58-129	5	25	
Benzo(k)fluoranthene	3.98	0.050 µg/L	4.44		89	67-128	4	18	
2-Chloronaphthalene	4.65	0.100 µg/L	4.44		105	50-140	14	30	
Chrysene	4.33	0.050 µg/L	4.42		98	58-125	14	24	
Dibenz(a,h)anthracene	3.18	0.010 µg/L	4.42		72	58-126	2	23	
Fluoranthene	4.37	0.030 µg/L	4.36		100	67-133	11	18	
Fluorene	4.28	0.050 µg/L	4.40		97	55-122	11	16	
Indeno(1,2,3-cd)pyrene	2.98	0.050 µg/L	4.44		67	62-126	6	22	
1-Methylnaphthalene	4.12	0.100 µg/L	4.38		94	53-125	12	16	
2-Methylnaphthalene	4.25	0.100 µg/L	4.36		98	52-122	16	17	
Naphthalene	4.16	0.200 µg/L	4.44		93	50-130	17	18	
Phenanthrene	4.08	0.100 µg/L	4.40		93	67-127	1	14	
Pyrene	4.09	0.020 µg/L	4.44		92	68-133	5	18	
Quinoline	5.88	0.050 µg/L	4.44		132	51-140	2	12	
Surrogate: Acridine-d9	3.78	µg/L	4.44		85	50-140			
Surrogate: Naphthalene-d8	4.37	µg/L	4.47		98	50-140			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Polycyclic Aromatic Hydrocarbons (PAH), Batch B8G0003, Continued

LCS Dup (B8G0003-BSD1), Continued

Prepared: 2018-07-01, Analyzed: 2018-07-04

Surrogate: Perylene-d12	3.61	µg/L	4.47	81	50-140
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Total Metals, Batch B8G0029

Blank (B8G0029-BLK1)

Prepared: 2018-07-03, Analyzed: 2018-07-04

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
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

Blank (B8G0029-BLK2)

Prepared: 2018-07-03, Analyzed: 2018-07-04

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

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8G0029, Continued									
Blank (B8G0029-BLK2), Continued					Prepared: 2018-07-03, Analyzed: 2018-07-04				
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							
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 (B8G0029-BS1)					Prepared: 2018-07-03, Analyzed: 2018-07-04				
Aluminum, total	0.0224	0.0050 mg/L	0.0200		112	80-120			
Antimony, total	0.0216	0.00020 mg/L	0.0200		108	80-120			
Arsenic, total	0.0191	0.00050 mg/L	0.0200		96	80-120			
Barium, total	0.0190	0.0050 mg/L	0.0200		95	80-120			
Beryllium, total	0.0211	0.00010 mg/L	0.0200		106	80-120			
Bismuth, total	0.0225	0.00010 mg/L	0.0200		113	80-120			
Boron, total	0.0239	0.0050 mg/L	0.0200		120	80-120			
Cadmium, total	0.0194	0.000010 mg/L	0.0200		97	80-120			
Calcium, total	2.19	0.20 mg/L	2.00		110	80-120			
Chromium, total	0.0195	0.00050 mg/L	0.0200		98	80-120			
Cobalt, total	0.0198	0.00010 mg/L	0.0200		99	80-120			
Copper, total	0.0208	0.00040 mg/L	0.0200		104	80-120			
Iron, total	2.05	0.010 mg/L	2.00		103	80-120			
Lead, total	0.0226	0.00020 mg/L	0.0200		113	80-120			
Lithium, total	0.0229	0.00010 mg/L	0.0200		114	80-120			
Magnesium, total	2.14	0.010 mg/L	2.00		107	80-120			
Manganese, total	0.0196	0.00020 mg/L	0.0200		98	80-120			
Molybdenum, total	0.0201	0.00010 mg/L	0.0200		100	80-120			
Nickel, total	0.0199	0.00040 mg/L	0.0200		100	80-120			
Phosphorus, total	1.94	0.050 mg/L	2.00		97	80-120			
Potassium, total	2.07	0.10 mg/L	2.00		103	80-120			
Selenium, total	0.0208	0.00050 mg/L	0.0200		104	80-120			
Silicon, total	2.1	1.0 mg/L	2.00		104	80-120			
Silver, total	0.0202	0.000050 mg/L	0.0200		101	80-120			
Sodium, total	2.16	0.10 mg/L	2.00		108	80-120			
Strontium, total	0.0201	0.0010 mg/L	0.0200		101	80-120			
Sulfur, total	4.9	3.0 mg/L	5.00		99	80-120			
Tellurium, total	0.0200	0.00050 mg/L	0.0200		100	80-120			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8G0029, Continued									
LCS (B8G0029-BS1), Continued				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Thallium, total	0.0225	0.000020 mg/L	0.0200		112	80-120			
Thorium, total	0.0221	0.00010 mg/L	0.0200		110	80-120			
Tin, total	0.0211	0.00020 mg/L	0.0200		105	80-120			
Titanium, total	0.0209	0.0050 mg/L	0.0200		104	80-120			
Tungsten, total	0.0168	0.0010 mg/L	0.0200		84	80-120			
Uranium, total	0.0221	0.000020 mg/L	0.0200		111	80-120			
Vanadium, total	0.0191	0.0010 mg/L	0.0200		96	80-120			
Zinc, total	0.0240	0.0040 mg/L	0.0200		120	80-120			
Zirconium, total	0.0223	0.00010 mg/L	0.0200		112	80-120			
LCS (B8G0029-BS2)				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Aluminum, total	0.0231	0.0050 mg/L	0.0200		116	80-120			
Antimony, total	0.0217	0.00020 mg/L	0.0200		109	80-120			
Arsenic, total	0.0196	0.00050 mg/L	0.0200		98	80-120			
Barium, total	0.0191	0.0050 mg/L	0.0200		96	80-120			
Beryllium, total	0.0189	0.00010 mg/L	0.0200		94	80-120			
Bismuth, total	0.0204	0.00010 mg/L	0.0200		102	80-120			
Boron, total	0.0203	0.0050 mg/L	0.0200		102	80-120			
Cadmium, total	0.0192	0.000010 mg/L	0.0200		96	80-120			
Calcium, total	1.96	0.20 mg/L	2.00		98	80-120			
Chromium, total	0.0196	0.00050 mg/L	0.0200		98	80-120			
Cobalt, total	0.0198	0.00010 mg/L	0.0200		99	80-120			
Copper, total	0.0207	0.00040 mg/L	0.0200		103	80-120			
Iron, total	2.01	0.010 mg/L	2.00		100	80-120			
Lead, total	0.0203	0.00020 mg/L	0.0200		102	80-120			
Lithium, total	0.0202	0.00010 mg/L	0.0200		101	80-120			
Magnesium, total	2.14	0.010 mg/L	2.00		107	80-120			
Manganese, total	0.0200	0.00020 mg/L	0.0200		100	80-120			
Molybdenum, total	0.0203	0.00010 mg/L	0.0200		102	80-120			
Nickel, total	0.0201	0.00040 mg/L	0.0200		100	80-120			
Phosphorus, total	1.99	0.050 mg/L	2.00		99	80-120			
Potassium, total	2.06	0.10 mg/L	2.00		103	80-120			
Selenium, total	0.0204	0.00050 mg/L	0.0200		102	80-120			
Silicon, total	2.0	1.0 mg/L	2.00		101	80-120			
Silver, total	0.0201	0.000050 mg/L	0.0200		101	80-120			
Sodium, total	2.15	0.10 mg/L	2.00		108	80-120			
Strontium, total	0.0203	0.0010 mg/L	0.0200		101	80-120			
Sulfur, total	4.8	3.0 mg/L	5.00		96	80-120			
Tellurium, total	0.0201	0.00050 mg/L	0.0200		101	80-120			
Thallium, total	0.0202	0.000020 mg/L	0.0200		101	80-120			
Thorium, total	0.0200	0.00010 mg/L	0.0200		100	80-120			
Tin, total	0.0213	0.00020 mg/L	0.0200		106	80-120			
Titanium, total	0.0208	0.0050 mg/L	0.0200		104	80-120			
Tungsten, total	0.0171	0.0010 mg/L	0.0200		85	80-120			
Uranium, total	0.0225	0.000020 mg/L	0.0200		112	80-120			
Vanadium, total	0.0191	0.0010 mg/L	0.0200		96	80-120			
Zinc, total	0.0219	0.0040 mg/L	0.0200		110	80-120			
Zirconium, total	0.0223	0.00010 mg/L	0.0200		112	80-120			
Duplicate (B8G0029-DUP1)				Source: 8062614-02		Prepared: 2018-07-03, Analyzed: 2018-07-04			
Aluminum, total	0.0891	0.0050 mg/L		0.0858			4	20	
Antimony, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Arsenic, total	0.00107	0.00050 mg/L		0.00110				15	
Barium, total	0.0286	0.0050 mg/L		0.0284			< 1	9	
Beryllium, total	< 0.00010	0.00010 mg/L		< 0.00010				16	
Bismuth, total	< 0.00010	0.00010 mg/L		< 0.00010				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8G0029, Continued									
Duplicate (B8G0029-DUP1), Continued		Source: 8062614-02		Prepared: 2018-07-03, Analyzed: 2018-07-04					
Boron, total	0.0199	0.0050 mg/L		0.0197				20	
Cadmium, total	0.000392	0.000010 mg/L		0.000400			2	20	
Calcium, total	48.8	0.20 mg/L		46.5			5	12	
Chromium, total	< 0.00050	0.00050 mg/L		< 0.00050				12	
Cobalt, total	0.00069	0.00010 mg/L		0.00068			< 1	13	
Copper, total	0.00058	0.00040 mg/L		0.00050				20	
Iron, total	0.133	0.010 mg/L		0.133			< 1	18	
Lead, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Lithium, total	0.00018	0.00010 mg/L		0.00016				19	
Magnesium, total	7.22	0.010 mg/L		7.25			< 1	10	
Manganese, total	0.372	0.00020 mg/L		0.372			< 1	13	
Molybdenum, total	0.00622	0.00010 mg/L		0.00633			2	20	
Nickel, total	0.00153	0.00040 mg/L		0.00158				20	
Phosphorus, total	0.066	0.050 mg/L		0.068				20	
Potassium, total	0.94	0.10 mg/L		0.95			1	13	
Selenium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Silicon, total	6.2	1.0 mg/L		6.4			3	11	
Silver, total	< 0.000050	0.000050 mg/L		< 0.000050				18	
Sodium, total	13.9	0.10 mg/L		14.3			3	10	
Strontium, total	0.239	0.0010 mg/L		0.241			1	9	
Sulfur, total	12.8	3.0 mg/L		13.8				20	
Tellurium, total	< 0.00050	0.00050 mg/L		< 0.00050				20	
Thallium, total	0.000031	0.000020 mg/L		0.000028				20	
Thorium, total	0.00011	0.00010 mg/L		< 0.00010				18	
Tin, total	< 0.00020	0.00020 mg/L		< 0.00020				20	
Titanium, total	< 0.0050	0.0050 mg/L		< 0.0050				20	
Tungsten, total	< 0.0010	0.0010 mg/L		< 0.0010				20	
Uranium, total	0.00109	0.000020 mg/L		0.00104			5	14	
Vanadium, total	< 0.0010	0.0010 mg/L		< 0.0010				17	
Zinc, total	0.0046	0.0040 mg/L		0.0047				8	
Zirconium, total	0.00019	0.00010 mg/L		0.00020				20	
Reference (B8G0029-SRM1)		Prepared: 2018-07-03, Analyzed: 2018-07-04							
Aluminum, total	0.119	0.0050 mg/L	0.116		102	79-114			
Antimony, total	0.0234	0.00020 mg/L	0.0215		109	89-123			
Arsenic, total	0.226	0.00050 mg/L	0.219		103	87-113			
Barium, total	1.63	0.0050 mg/L	1.68		97	85-114			
Beryllium, total	0.107	0.00010 mg/L	0.106		100	79-122			
Boron, total	0.905	0.0050 mg/L	0.870		104	79-117			
Cadmium, total	0.112	0.000010 mg/L	0.112		100	89-112			
Calcium, total	4.03	0.20 mg/L	3.84		105	85-120			
Chromium, total	0.223	0.00050 mg/L	0.218		102	87-113			
Cobalt, total	0.0673	0.00010 mg/L	0.0640		105	90-117			
Copper, total	0.449	0.00040 mg/L	0.422		106	90-115			
Iron, total	0.659	0.010 mg/L	0.645		102	86-112			
Lead, total	0.0585	0.00020 mg/L	0.0560		104	90-113			
Lithium, total	0.0557	0.00010 mg/L	0.0520		107	77-127			
Magnesium, total	3.68	0.010 mg/L	3.46		106	84-116			
Manganese, total	0.175	0.00020 mg/L	0.172		102	85-113			
Molybdenum, total	0.223	0.00010 mg/L	0.213		105	87-112			
Nickel, total	0.444	0.00040 mg/L	0.420		106	90-114			
Phosphorus, total	0.248	0.050 mg/L	0.248		100	74-119			
Potassium, total	1.66	0.10 mg/L	1.60		104	78-200			
Selenium, total	0.0185	0.00050 mg/L	0.0166		112	89-123			
Sodium, total	10.1	0.10 mg/L	9.55		106	81-117			
Strontium, total	0.471	0.0010 mg/L	0.458		103	82-111			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Allterra Construction
P17-932

WORK ORDER REPORTED 8062614
2018-07-06 16:08

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B8G0029, Continued									
Reference (B8G0029-SRM1), Continued				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Thallium, total	0.0205	0.000020 mg/L	0.0196		104	90-113			
Uranium, total	0.133	0.000020 mg/L	0.133		100	87-113			
Vanadium, total	0.436	0.0010 mg/L	0.434		100	85-110			
Zinc, total	0.453	0.0040 mg/L	0.440		103	88-114			
Reference (B8G0029-SRM2)				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Aluminum, total	0.116	0.0050 mg/L	0.116		100	79-114			
Antimony, total	0.0233	0.00020 mg/L	0.0215		108	89-123			
Arsenic, total	0.224	0.00050 mg/L	0.219		102	87-113			
Barium, total	1.62	0.0050 mg/L	1.68		97	85-114			
Beryllium, total	0.105	0.00010 mg/L	0.106		99	79-122			
Boron, total	0.881	0.0050 mg/L	0.870		101	79-117			
Cadmium, total	0.110	0.000010 mg/L	0.112		98	89-112			
Calcium, total	4.03	0.20 mg/L	3.84		105	85-120			
Chromium, total	0.220	0.00050 mg/L	0.218		101	87-113			
Cobalt, total	0.0662	0.00010 mg/L	0.0640		103	90-117			
Copper, total	0.441	0.00040 mg/L	0.422		105	90-115			
Iron, total	0.652	0.010 mg/L	0.645		101	86-112			
Lead, total	0.0572	0.00020 mg/L	0.0560		102	90-113			
Lithium, total	0.0542	0.00010 mg/L	0.0520		104	77-127			
Magnesium, total	3.60	0.010 mg/L	3.46		104	84-116			
Manganese, total	0.173	0.00020 mg/L	0.172		100	85-113			
Molybdenum, total	0.219	0.00010 mg/L	0.213		103	87-112			
Nickel, total	0.436	0.00040 mg/L	0.420		104	90-114			
Phosphorus, total	0.224	0.050 mg/L	0.248		91	74-119			
Potassium, total	1.62	0.10 mg/L	1.60		102	78-200			
Selenium, total	0.0181	0.00050 mg/L	0.0166		109	89-123			
Sodium, total	9.85	0.10 mg/L	9.55		103	81-117			
Strontium, total	0.461	0.0010 mg/L	0.458		101	82-111			
Thallium, total	0.0199	0.000020 mg/L	0.0196		101	90-113			
Uranium, total	0.130	0.000020 mg/L	0.133		98	87-113			
Vanadium, total	0.429	0.0010 mg/L	0.434		99	85-110			
Zinc, total	0.450	0.0040 mg/L	0.440		102	88-114			
Total Metals, Batch B8G0092									
Blank (B8G0092-BLK1)				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Mercury, total	< 0.000010	0.000010 mg/L							
Reference (B8G0092-SRM1)				Prepared: 2018-07-03, Analyzed: 2018-07-04					
Mercury, total	0.00425	0.000010 mg/L	0.00489		87	80-120			

Submission Key F177-SAE-583R

SUBMITTED :6/26/2018 6:07:40 PM

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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: 9 TAT: 5	CARO Analytical Services #110 - 4011 Viking Way Richmond, BC V6V 2K9 Phone: (604) 279-1499 Fax: (604) 279-1599	Number: June 2018 Shipped via: Harbour Air Tracking #: SDG:

#	Client information	Analyses	Containers
# 1	MW6 06/26/2018 9:45 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 06/26/2018 11:15 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)
# 3	MW3D 06/26/2018 11:45 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)

Submission Key F177-SAE-583R		SUBMITTED :6/26/2018 6:07:40 PM		Page 2 of 3
# 4	MW2 06/26/2018 12:45 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)	
# 5	SB1 06/26/2018 10:45 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)	
# 6	SB2 06/26/2018 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)	
# 7	LE-1 06/26/2018 13:15 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)	

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#	LE-1	Analyses	Containers
8	06/26/2018 13:20 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)

#	SW1	Analyses	Containers
9	06/26/2018 12:15 Grab / Water	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	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)

Relinquished by	Date/Time	Accepted by	Date/Time