1805555

GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

GC/MS Semivolatiles:
The sample was analyzed using GC/MS following the current revision of SOP 506 based on SW-846 Method 8270D.

All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria with the following exceptions:

Spiked Compound	QC Sample	Direction
Acenaphthalene	LCSD	Low and RPD High
Benzo(B)fluoranthene	LCSD	High and RPD High
Benzo(K)fluoranthene	LCSD	High and RPD High
Indeno(1,2,3-CD)pyrene	LCS/LCSD	RPD High
Dibenzo(A,H)anthracene	LCS/LCSD	RPD High
Benzo(G,H)perylene	LCS/LCSD	RPD High

The laboratory control sample duplicate (LCSD) associated with these samples was observed to have an anomalous color upon concentration of the extract. The LCSD was analyzed multiple times with recoveries outside control limits. This unknown issue with the extract seems to be isolated to the LCSD as all other quality control criteria were met. No further action was taken.

All remaining acceptance criteria were met.

DRO:
The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

Metals:

The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

All acceptance criteria were met.

Inorganics:

The sample was analyzed following EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

Analyte	Method	SOP #
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H+ B	1126
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Total Nitrates	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

Client: Western Water and Land, Inc. **Date:** *13-Jun-18*
Project: 30000.04.80 TEP Mar/Apr 317B **Work Order:** 1805555
Sample ID: B29 **Lab ID:** 1805555-1
Legal Location: **Matrix:** SURFACEWAT
Collection Date: 5/24/2018 09:40 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			**SM2320B**	Prep Date: **5/31/2018**		PrepBy: **AEJ**
BICARBONATE AS CaCO3	**95**		**20**	**MG/L**	1	5/31/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/31/2018
TOTAL ALKALINITY AS CaCO3	**95**		**20**	**MG/L**	1	5/31/2018
Diesel Range Organics			**SW8015M**	Prep Date: **5/29/2018**		PrepBy: **LML**
Diesel Range Organics	ND		0.58	MG/L	1	5/30/2018 16:10
Surr: O-TERPHENYL	*95*		*63-126*	*%REC*	1	5/30/2018 16:10
GC/MS Semi-volatiles			**SW8270**	Prep Date: **5/29/2018**		PrepBy: **BCH**
NAPHTHALENE	ND		10	UG/L	1	6/5/2018 16:29
2-METHYLNAPHTHALENE	ND		10	UG/L	1	6/5/2018 16:29
ACENAPHTHYLENE	ND		10	UG/L	1	6/5/2018 16:29
ACENAPHTHENE	ND		10	UG/L	1	6/5/2018 16:29
FLUORENE	ND		10	UG/L	1	6/5/2018 16:29
PHENANTHRENE	ND		10	UG/L	1	6/5/2018 16:29
ANTHRACENE	ND		10	UG/L	1	6/5/2018 16:29
FLUORANTHENE	ND		10	UG/L	1	6/5/2018 16:29
PYRENE	ND		10	UG/L	1	6/5/2018 16:29
BENZO(A)ANTHRACENE	ND		10	UG/L	1	6/5/2018 16:29
CHRYSENE	ND		10	UG/L	1	6/5/2018 16:29
BENZO(B)FLUORANTHENE	ND		10	UG/L	1	6/5/2018 16:29
BENZO(K)FLUORANTHENE	ND		10	UG/L	1	6/5/2018 16:29
BENZO(A)PYRENE	ND		10	UG/L	1	6/5/2018 16:29
INDENO(1,2,3-CD)PYRENE	ND		10	UG/L	1	6/5/2018 16:29
DIBENZO(A,H)ANTHRACENE	ND		10	UG/L	1	6/5/2018 16:29
BENZO(G,H,I)PERYLENE	ND		10	UG/L	1	6/5/2018 16:29
Surr: NITROBENZENE-D5	*75*		*53-111*	*%REC*	1	6/5/2018 16:29
Surr: 2-FLUOROBIPHENYL	*79*		*55-108*	*%REC*	1	6/5/2018 16:29
Surr: TERPHENYL-D14	*68*		*34-139*	*%REC*	1	6/5/2018 16:29
GC/MS Volatiles			**SW8260_25**	Prep Date: **6/7/2018**		PrepBy: **CJW**
BENZENE	ND		1	UG/L	1	6/7/2018 14:35
TOLUENE	ND		1	UG/L	1	6/7/2018 14:35
ETHYLBENZENE	ND		1	UG/L	1	6/7/2018 14:35
M+P-XYLENE	ND		1	UG/L	1	6/7/2018 14:35
O-XYLENE	ND		1	UG/L	1	6/7/2018 14:35
TOTAL XYLENES	ND		1	UG/L	1	6/7/2018 14:35
Surr: 4-BROMOFLUOROBENZENE	*101*		*85-115*	*%REC*	1	6/7/2018 14:35
Surr: DIBROMOFLUOROMETHANE	*102*		*84-118*	*%REC*	1	6/7/2018 14:35
Surr: TOLUENE-D8	*98*		*85-115*	*%REC*	1	6/7/2018 14:35
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	6/7/2018 14:35
Ion Chromatography			**EPA300.0**	Prep Date: **5/25/2018**		PrepBy: **HMA**
BROMIDE	ND		0.2	MG/L	1	5/25/2018 18:36
CHLORIDE	**61**		**2**	**MG/L**	10	5/30/2018 09:44
FLUORIDE	**0.14**		**0.1**	**MG/L**	1	5/25/2018 18:36
NITRATE/NITRITE AS N	**0.17**	J	**0.1**	**MG/L**	1	5/25/2018 18:36
NITRATE AS N	**0.068**	J	**0.2**	**MG/L**	1	5/25/2018 18:36

Client:	Western Water and Land, Inc.	**Date:**	*13-Jun-18*
Project:	30000.04.80 TEP Mar/Apr 317B	**Work Order:**	1805555
Sample ID:	B29	**Lab ID:**	1805555-1
Legal Location:		**Matrix:**	SURFACEWAT
Collection Date:	5/24/2018 09:40	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NITRITE AS N	**0.1**	J	**0.1**	**MG/L**	1	5/25/2018 18:36
SULFATE	**48**		**1**	**MG/L**	1	5/25/2018 18:36
Dissolved Metals by 200.8			**EPA200.8**		Prep Date: **5/31/2018**	PrepBy: **JML**
BARIUM	**0.039**		**0.001**	**MG/L**	10	6/4/2018 15:21
BORON	**0.018**	J	**0.05**	**MG/L**	10	6/4/2018 15:21
CALCIUM	**37**		**1**	**MG/L**	10	6/4/2018 15:21
IRON	**0.014**	J	**0.1**	**MG/L**	10	6/4/2018 15:21
MAGNESIUM	**8.2**		**0.1**	**MG/L**	10	6/4/2018 15:21
MANGANESE	**0.0036**		**0.002**	**MG/L**	10	6/4/2018 15:21
POTASSIUM	**1.6**		**1**	**MG/L**	10	6/4/2018 15:21
SELENIUM	ND		0.001	MG/L	10	6/4/2018 15:21
SODIUM	**41**		**1**	**MG/L**	10	6/4/2018 15:21
STRONTIUM	**0.25**		**0.001**	**MG/L**	10	6/4/2018 15:21
pH			**SM4500-H**		Prep Date: **5/25/2018**	PrepBy: **AEJ**
PH	**7.37**		**0.1**	**pH**	1	5/25/2018
Specific Conductance in Water			**SM2510B**		Prep Date: **5/25/2018**	PrepBy: **AEJ**
SPECIFIC CONDUCTIVITY	**494**		**1**	**umhos/cm**	1	5/25/2018
Total Dissolved Solids			**SM2540C**		Prep Date: **5/29/2018**	PrepBy: **AEJ**
TOTAL DISSOLVED SOLIDS	**250**		**20**	**MG/L**	1	5/30/2018

Client:	Western Water and Land, Inc.	**Date:**	*13-Jun-18*
Project:	30000.04.80 TEP Mar/Apr 317B	**Work Order:**	1805555
Sample ID:	Trip Blank	**Lab ID:**	1805555-2
Legal Location:		**Matrix:**	WATER
Collection Date:	5/24/2018	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles		**SW8260_25**		Prep Date: **6/7/2018**		PrepBy: **CJW**
BENZENE	ND		1	UG/L	1	6/7/2018 14:59
TOLUENE	ND		1	UG/L	1	6/7/2018 14:59
ETHYLBENZENE	ND		1	UG/L	1	6/7/2018 14:59
M+P-XYLENE	ND		1	UG/L	1	6/7/2018 14:59
O-XYLENE	ND		1	UG/L	1	6/7/2018 14:59
TOTAL XYLENES	ND		1	UG/L	1	6/7/2018 14:59
Surr: 4-BROMOFLUOROBENZENE	*103*		*85-115*	*%REC*	1	6/7/2018 14:59
Surr: DIBROMOFLUOROMETHANE	*102*		*84-118*	*%REC*	1	6/7/2018 14:59
Surr: TOLUENE-D8	*99*		*85-115*	*%REC*	1	6/7/2018 14:59
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	6/7/2018 14:59

Client:	Western Water and Land, Inc.	**Date:**	*13-Jun-18*
Project:	30000.04.80 TEP Mar/Apr 317B	**Work Order:**	1805555
Sample ID:	Trip Blank	**Lab ID:**	1805555-2
Legal Location:		**Matrix:**	WATER
Collection Date:	5/24/2018	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
U or ND - Result is less than the sample specific MDC.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
Y2 - Chemical Yield outside default limits.
W - DER is greater than Warning Limit of 1.42
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
G - Sample density differs by more than 15% of LCS density.
D - DER is greater than Control Limit
M - Requested MDC not met.
LT - Result is less than requested MDC but greater than achieved MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
L - LCS Recovery below lower control limit.
H - LCS Recovery above upper control limit.
P - LCS, Matrix Spike Recovery within control limits.
N - Matrix Spike Recovery outside control limits
NC - Not Calculated for duplicate results less than 5 times MDC
B - Analyte concentration greater than MDC.
B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
U or ND - Indicates that the compound was analyzed for but not detected.
E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
M - Duplicate injection precision was not met.
N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
* - Duplicate analysis (relative percent difference) not within control limits.
S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
E - Analyte concentration exceeds the upper level of the calibration range.
J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
A - A tentatively identified compound is a suspected aldol-condensation product.
X - The analyte was diluted below an accurate quantitation level.
* - The spike recovery is equal to or outside the control criteria used.
+ - The relative percent difference (RPD) equals or exceeds the control criteria.
G - A pattern resembling gasoline was detected in this sample.
D - A pattern resembling diesel was detected in this sample.
M - A pattern resembling motor oil was detected in this sample.
C - A pattern resembling crude oil was detected in this sample.
4 - A pattern resembling JP-4 was detected in this sample.
5 - A pattern resembling JP-5 was detected in this sample.
H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC180529-82-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC180529-82** Units: **MG/L** Analysis Date: **5/30/2018 17:37**

Client ID: Run ID: **HC180530-8A** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.52	0.574	7.98		107	36-150				20	
Surr: O-TERPHENYL	1.59		1.6		100	63-126					

MB Sample ID: **HC180529-82** Units: **MG/L** Analysis Date: **5/30/2018 14:43**

Client ID: Run ID: **HC180530-8A** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	%REC	Control Limit	Qual
Diesel Range Organics	ND	0.57			
Surr: O-TERPHENYL	1.43		90	63-126	

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **IP180531-3-3** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS Sample ID: **IM180531-3** Units: **MG/L** Analysis Date: **6/4/2018 15:09**

Client ID: Run ID: **IM180604-10A5** Prep Date: **5/31/2018** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.103	0.001	0.1		103	85-115				20	
BORON	0.99	0.05	1		99	85-115				20	
CALCIUM	9.89	1	10		99	85-115				20	
IRON	5.06	0.1	5		101	85-115				20	
MAGNESIUM	10.3	0.1	10		103	85-115				20	
MANGANESE	0.11	0.002	0.1		110	85-115				20	
POTASSIUM	5.2	1	5		104	85-115				20	
SELENIUM	0.0959	0.001	0.1		96	85-115				20	
SODIUM	10.4	1	10		104	85-115				20	
STRONTIUM	0.1	0.001	0.1		100	85-115				20	

MB Sample ID: **FP180529-3** Units: **MG/L** Analysis Date: **6/4/2018 15:03**

Client ID: Run ID: **IM180604-10A5** Prep Date: **5/31/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
BARIUM	-0.00024	0.001	J
BORON	0.0082	0.05	J
CALCIUM	ND	1	
IRON	-0.0024	0.1	J
MAGNESIUM	ND	0.1	
MANGANESE	0.0017	0.002	J
POTASSIUM	ND	1	
SELENIUM	ND	0.001	
SODIUM	0.03	1	J
STRONTIUM	ND	0.001	

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **EX180529-2-2** Instrument ID **HPSV4** Method: **SW8270**

LCS Sample ID: **EX180529-2** Units: **UG/L** Analysis Date: **6/5/2018 10:17**

Client ID: Run ID: **SV180605-444** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NAPHTHALENE	37.7	10	50		75	60-100				20	
2-METHYLNAPHTHALENE	38.1	10	50		76	62-100				20	
ACENAPHTHYLENE	40.6	10	50		81	67-108				20	
ACENAPHTHENE	40.4	10	50		81	60-108				20	
FLUORENE	41.9	10	50		84	64-116				20	
PHENANTHRENE	43.2	10	50		86	64-113				20	
ANTHRACENE	43	10	50		86	72-108				20	
FLUORANTHENE	43.4	10	50		87	63-122				20	
PYRENE	41	10	50		82	60-113				20	
BENZO(A)ANTHRACENE	43.3	10	50		87	69-107				20	
CHRYSENE	43.6	10	50		87	68-114				20	
BENZO(B)FLUORANTHENE	44.5	10	50		89	67-111				20	
BENZO(K)FLUORANTHENE	43.4	10	50		87	65-118				20	
BENZO(A)PYRENE	41.1	10	50		82	62-104				20	
INDENO(1,2,3-CD)PYRENE	44.3	10	50		89	54-124				20	
DIBENZO(A,H)ANTHRACENE	42.3	10	50		85	57-126				20	
BENZO(G,H,I)PERYLENE	37.6	10	50		75	52-124				20	
Surr: NITROBENZENE-D5	40.3		50		81	53-111					
Surr: 2-FLUOROBIPHENYL	38.5		50		77	55-108					
Surr: TERPHENYL-D14	36.4		50		73	34-139					

QC BATCH REPORT

Batch ID: **EX180529-2-2** Instrument ID **HPSV4** Method: **SW8270**

LCSD Sample ID: **EX180529-2** Units: **UG/L** Analysis Date: **6/5/2018 10:37**

Client ID: Run ID: **SV180605-444** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NAPHTHALENE	39.2	10	50		78	60-100		37.7	4	20	
2-METHYLNAPHTHALENE	40.1	10	50		80	62-100		38.1	5	20	
ACENAPHTHYLENE	28.9	10	50		58	67-108		40.6	34	20	*+
ACENAPHTHENE	41.3	10	50		83	60-108		40.4	2	20	
FLUORENE	43.2	10	50		86	64-116		41.9	3	20	
PHENANTHRENE	43.8	10	50		88	64-113		43.2	2	20	
ANTHRACENE	41.9	10	50		84	72-108		43	3	20	
FLUORANTHENE	44.7	10	50		89	63-122		43.4	3	20	
PYRENE	41.8	10	50		84	60-113		41	2	20	
BENZO(A)ANTHRACENE	43.6	10	50		87	69-107		43.3	1	20	
CHRYSENE	45.3	10	50		91	68-114		43.6	4	20	
BENZO(B)FLUORANTHENE	61.9	10	50		124	67-111		44.5	33	20	*+
BENZO(K)FLUORANTHENE	59.9	10	50		120	65-118		43.4	32	20	*+
BENZO(A)PYRENE	48.3	10	50		97	62-104		41.1	16	20	
INDENO(1,2,3-CD)PYRENE	60.5	10	50		121	54-124		44.3	31	20	+
DIBENZO(A,H)ANTHRACENE	58.7	10	50		117	57-126		42.3	32	20	+
BENZO(G,H,I)PERYLENE	50.2	10	50		100	52-124		37.6	29	20	+
Surr: NITROBENZENE-D5	42.3		50		85	53-111			5		
Surr: 2-FLUOROBIPHENYL	39.8		50		80	55-108			3		
Surr: TERPHENYL-D14	38.6		50		77	34-139			6		

QC BATCH REPORT

Batch ID: **EX180529-2-2** Instrument ID **HPSV4** Method: **SW8270**

MB Sample ID: **EX180529-2** Units: **UG/L** Analysis Date: **6/5/2018 09:56**

Client ID: Run ID: **SV180605-444** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit			Qual
NAPHTHALENE	ND	10			
2-METHYLNAPHTHALENE	ND	10			
ACENAPHTHYLENE	ND	10			
ACENAPHTHENE	ND	10			
FLUORENE	ND	10			
PHENANTHRENE	ND	10			
ANTHRACENE	ND	10			
FLUORANTHENE	ND	10			
PYRENE	ND	10			
BENZO(A)ANTHRACENE	ND	10			
CHRYSENE	ND	10			
BENZO(B)FLUORANTHENE	ND	10			
BENZO(K)FLUORANTHENE	ND	10			
BENZO(A)PYRENE	ND	10			
INDENO(1,2,3-CD)PYRENE	ND	10			
DIBENZO(A,H)ANTHRACENE	ND	10			
BENZO(G,H,I)PERYLENE	ND	10			
Surr: NITROBENZENE-D5	36.6		73	53-111	
Surr: 2-FLUOROBIPHENYL	39.6		79	55-108	
Surr: TERPHENYL-D14	39.1		78	34-139	

The following samples were analyzed in this batch: 1805555-1

Batch ID: **VL180607-4-2** Instrument ID **HPV2** Method: **SW8260_25**

LCS Sample ID: **VL180607-4** Units: **%REC** Analysis Date: **6/7/2018 10:09**

Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.9		25		100	85-115					
Surr: DIBROMOFLUOROMETHANE	25.1		25		100	84-118					
Surr: TOLUENE-D8	24.6		25		98	85-115					
BENZENE	9.78	1	10		98	83-117				20	
TOLUENE	9.46	1	10		95	82-113				20	
ETHYLBENZENE	9.52	1	10		95	81-113				20	
M+P-XYLENE	18.9	1	20		95	82-115				20	
O-XYLENE	9.55	1	10		96	81-115				20	

LCSD Sample ID: **VL180607-4** Units: **%REC** Analysis Date: **6/7/2018 10:32**

Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.8		25		99	85-115			0		
Surr: DIBROMOFLUOROMETHANE	24.8		25		99	84-118			1		
Surr: TOLUENE-D8	24.7		25		99	85-115			1		
BENZENE	9.46	1	10		95	83-117		9.78	3	20	
TOLUENE	9.27	1	10		93	82-113		9.46	2	20	
ETHYLBENZENE	9.3	1	10		93	81-113		9.52	2	20	
M+P-XYLENE	18.2	1	20		91	82-115		18.9	4	20	
O-XYLENE	9.28	1	10		93	81-115		9.55	3	20	

MB Sample ID: **VL180607-4** Units: **%REC** Analysis Date: **6/7/2018 12:30**

Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	%REC	Control Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.3		101	85-115	
Surr: DIBROMOFLUOROMETHANE	25.1		100	84-118	
Surr: TOLUENE-D8	24.9		100	85-115	
BENZENE	ND	1			
TOLUENE	ND	1			
ETHYLBENZENE	ND	1			
M+P-XYLENE	ND	1			
O-XYLENE	ND	1			
TOTAL XYLENES	ND	1			

The following samples were analyzed in this batch: 1805555-1 1805555-2

QC BATCH REPORT

Batch ID: **VL180607-4-4** Instrument ID **HPV2** Method: **SW8260_25**

LCS Sample ID: **VL180607-8** Units: **UG/L** Analysis Date: **6/7/2018 11:20**
Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	928	100	1000		93	80-120				20	

LCSD Sample ID: **VL180607-8** Units: **UG/L** Analysis Date: **6/7/2018 11:43**
Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	911	100	1000		91	80-120		928	2	20	

MB Sample ID: **VL180607-4** Units: **UG/L** Analysis Date: **6/7/2018 12:30**
Client ID: Run ID: **VL180607-4A** Prep Date: **6/7/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
GASOLINE RANGE ORGANICS	ND	100	

The following samples were analyzed in this batch: 1805555-1 1805555-2

QC BATCH REPORT

Batch ID: **AK180531-1-2** Instrument ID **Balance** Method: **SM2320B**

DUP Sample ID: **1805555-1** Units: **MG/L** Analysis Date: **5/31/2018**
Client ID: **B29** Run ID: **AK180531-1** Prep Date: **5/31/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	95.7	20						95		15	
CARBONATE AS CaCO3	ND	20						20		15	
TOTAL ALKALINITY AS CaCO3	95.7	20						95		15	

LCS Sample ID: **AK180531-1** Units: **MG/L** Analysis Date: **5/31/2018**
Client ID: Run ID: **AK180531-1** Prep Date: **5/31/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	102	5	100		101	85-115				15	

MB Sample ID: **AK180531-1** Units: **MG/L** Analysis Date: **5/31/2018**
Client ID: Run ID: **AK180531-1** Prep Date: **5/31/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
BICARBONATE AS CaCO3	ND	5	
CARBONATE AS CaCO3	ND	5	
TOTAL ALKALINITY AS CaCO3	ND	5	

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **IC180525-1-4** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC180525-1** Units: **MG/L** Analysis Date: **5/25/2018 10:53**

Client ID: Run ID: **IC180525-1A4** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10.1	0.2	10		101	90-110				15	
CHLORIDE	10.1	0.2	10		101	90-110				15	
FLUORIDE	5.04	0.1	5		101	90-110				15	
NITRATE AS N	10.1	0.2	10		101	90-110				15	
NITRITE AS N	5.23	0.1	5		105	90-110				15	
SULFATE	50.8	1	50		102	90-110				15	

MB Sample ID: **IC180525-1** Units: **MG/L** Analysis Date: **5/25/2018 11:08**

Client ID: Run ID: **IC180525-1A4** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
BROMIDE	ND	0.2	
CHLORIDE	ND	0.2	
FLUORIDE	ND	0.1	
NITRATE/NITRITE AS N	ND	0.1	
NITRATE AS N	ND	0.2	
NITRITE AS N	ND	0.1	
SULFATE	ND	1	

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **PH180525-1-1** Instrument ID **pH-1** Method: **SM4500-H**

CCV Sample ID: **CCV** Units: **pH** Analysis Date: **5/25/2018**
Client ID: Run ID: **PH180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.05	0.1	7			6.9-7.1					

DUP Sample ID: **1805555-1** Units: **pH** Analysis Date: **5/25/2018**
Client ID: **B29** Run ID: **PH180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.47	0.1						7.37			

ICV Sample ID: **ICV** Units: **pH** Analysis Date: **5/25/2018**
Client ID: Run ID: **PH180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	6.98	0.1	7			6.9-7.1					

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **SC180525-1-1** Instrument ID **pH-1** Method: **SM2510B**

CCV Sample ID: **CCV** Units: **umhos/cm** Analysis Date: **5/25/2018**
Client ID: Run ID: **SC180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1410	1	1410		100	?71.7-1554					

DUP Sample ID: **1805555-1** Units: **umhos/cm** Analysis Date: **5/25/2018**
Client ID: **B29** Run ID: **SC180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	497	1						494	1	10	

ICV Sample ID: **ICV** Units: **umhos/cm** Analysis Date: **5/25/2018**
Client ID: Run ID: **SC180525-1A1** Prep Date: **5/25/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	744	1	718		104	646.2-789.7					

The following samples were analyzed in this batch: 1805555-1

QC BATCH REPORT

Batch ID: **TD180529-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD180529-1** Units: **MG/L** Analysis Date: **5/30/2018**
Client ID: Run ID: **TD180530-1a1** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	388	20	400		97	85-115				5	

MB Sample ID: **TD180529-1** Units: **MG/L** Analysis Date: **5/30/2018**
Client ID: Run ID: **TD180530-1a1** Prep Date: **5/29/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
TOTAL DISSOLVED SOLIDS	ND	20	

The following samples were analyzed in this batch: 1805555-1