



2007104

GC/MS Volatiles:

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

All acceptance criteria were met.

Dissolved Gasses:

The sample was prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All 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.

The method blank associated with this project was below the reporting limit, but above the MDL for diesel range organics. This compound was not detected in the associated sample. No further action was taken.

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

Spiked Compound	QC Sample	Direction
Diesel Range Organics	LCSD	High and RPD High

The above compound was not detected above the reporting limit in the sample. As no sample quantitations are compromised and reporting limits are defensible, data are submitted.

All surrogate recoveries were within acceptance criteria with the following exception:

Surrogate	Sample	Direction
O-terphenyl	LCSD	High

No target compounds were detected above the reporting limit in the sample. No further action was taken.



All remaining acceptance criteria were met.

BART:

The Biological Activity Reaction Test was completed with the Iron-Related Bacteria, Sulfate-Reducing Bacteria, and Slime-Forming Bacteria kit manufactured by Hach Company. The analysis was performed following the manufacturer provided instructions. If the target analyte is not detected (absent), then the sample will be reported with “ND” in the result field. If the target analyte is detected (present), then the sample will be reported with the estimated colony forming units/mL (cfu/mL) as provided by the manufacturer based on the day reaction was observed.

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.

The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.

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:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
Total phosphorus	SM4500-P	1119
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.

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: GV 86-2 BWQ
 Sample ID: Firth 112927
 Legal Location:
 Collection Date: 7/8/2020 10:10

Date: 24-Jul-20
 Work Order: 2007104
 Lab ID: 2007104-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B		Prep Date: 7/14/2020		PrepBy: KJS
BICARBONATE AS CaCO3	330		20	MG/L	1		7/14/2020
CARBONATE AS CaCO3	ND		20	MG/L	1		7/14/2020
TOTAL ALKALINITY AS CaCO3	330		20	MG/L	1		7/14/2020
BIOLOGICAL ACTIVITY REACTION TEST			BART		Prep Date: 7/13/2020		PrepBy: JML
IRON RELATED BACTERIA	140000		1	cfu/ml	1		7/21/2020
SLIME FORMING BACTERIA	440000		1	cfu/ml	1		7/21/2020
SULFATE REDUCING BACTERIA	115000		1	cfu/ml	1		7/21/2020
DIESEL RANGE ORGANICS			SW8015M		Prep Date: 7/14/2020		PrepBy: JRS
Diesel Range Organics	ND		1	MG/L	1	0.36	7/22/2020 19:12
Surr: O-TERPHENYL	88		69-120	%REC	1		7/22/2020 19:12
DISSOLVED GASSES			RSK175		Prep Date: 7/14/2020		PrepBy: ASZ
METHANE	ND		1	UG/L	1	1	7/14/2020 16:56
ETHANE	ND		2	UG/L	1	2	7/14/2020 16:56
PROPANE	ND		1	UG/L	1	1	7/14/2020 16:56
GC/MS VOLATILES			SW8260_25		Prep Date: 7/20/2020		PrepBy: C1A
BENZENE	ND		1	UG/L	1	0.3	7/20/2020 18:06
TOLUENE	ND		1	UG/L	1	0.34	7/20/2020 18:06
ETHYLBENZENE	ND		1	UG/L	1	0.33	7/20/2020 18:06
M+P-XYLENE	ND		1	UG/L	1	0.55	7/20/2020 18:06
O-XYLENE	ND		1	UG/L	1	0.34	7/20/2020 18:06
TOTAL XYLENES	ND		1	UG/L	1		7/20/2020 18:06
Surr: 4-BROMOFLUOROBENZENE	98		80-120	%REC	1		7/20/2020 18:06
Surr: DIBROMOFLUOROMETHANE	107		80-120	%REC	1		7/20/2020 18:06
Surr: TOLUENE-D8	102		80-120	%REC	1		7/20/2020 18:06
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	51	7/20/2020 18:06
ION CHROMATOGRAPHY			EPA300.0		Prep Date: 7/9/2020		PrepBy: KJS
BROMIDE	ND		0.2	MG/L	1	0.064	7/9/2020 11:28
CHLORIDE	6		0.2	MG/L	1	0.076	7/9/2020 11:28
FLUORIDE	0.23		0.1	MG/L	1	0.039	7/9/2020 11:28
NITRATE/NITRITE AS N	1.3		0.15	MG/L	1		7/9/2020 11:28
NITRATE AS N	1.3		0.2	MG/L	1	0.092	7/9/2020 11:28
NITRITE AS N	ND		0.15	MG/L	1	0.069	7/9/2020 11:28
SULFATE	15		1	MG/L	1	0.53	7/9/2020 11:28
METALS BY 200.8			EPA200.8		Prep Date: 7/16/2020		PrepBy: JML
BARIUM	0.11		0.001	MG/L	10	0.00049	7/20/2020 14:47
BORON	0.071		0.05	MG/L	10	0.026	7/20/2020 14:47
CALCIUM	34		1	MG/L	10	0.18	7/20/2020 14:47
IRON	ND		0.15	MG/L	10	0.071	7/20/2020 14:47
MAGNESIUM	32		0.1	MG/L	10	0.023	7/20/2020 14:47
MANGANESE	ND		0.004	MG/L	10	0.0021	7/20/2020 14:47

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: GV 86-2 BWQ
Sample ID: Firth 112927
Legal Location:
Collection Date: 7/8/2020 10:10

Date: 24-Jul-20
Work Order: 2007104
Lab ID: 2007104-1
Matrix: WATER

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
POTASSIUM	1.7		1	MG/L	10	0.2	7/20/2020 14:47
SELENIUM	ND		0.0015	MG/L	10	0.00067	7/20/2020 14:47
SODIUM	62		1	MG/L	10	0.13	7/20/2020 14:47
STRONTIUM	0.78		0.001	MG/L	10	0.00024	7/20/2020 14:47
PH			SM4500-H		Prep Date: 7/10/2020		PrepBy: KJS
PH	8.42		0.1	pH	1		7/10/2020
SPECIFIC CONDUCTANCE IN WATER			SM2510B		Prep Date: 7/13/2020		PrepBy: KJS
SPECIFIC CONDUCTIVITY	626		1	umhos/cm	1		7/13/2020
TOTAL DISSOLVED SOLIDS			SM2540C		Prep Date: 7/14/2020		PrepBy: LMC
TOTAL DISSOLVED SOLIDS	380		20	MG/L	1		7/17/2020
TOTAL PHOSPHORUS AS P			SM4500-P		Prep Date: 7/13/2020		PrepBy: LMC
TOTAL PHOSPHORUS	0.052		0.05	MG/L	1	0.016	7/15/2020

Client: Western Water and Land, Inc.
Project: GV 86-2 BWQ
Sample ID: Firth 112927
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Work Order: 2007104
Lab ID: 2007104-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
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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.
- 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

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Date: 7/24/2020 11:54

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 2007104

Project: GV 86-2 BWQ

Batch ID: **HC200714-82-1**

Instrument ID **FUELS-1**

Method: **SW8015M**

LCS Sample ID: **HC200714-82** Units: **MG/L** Analysis Date: **7/22/2020 18:30**

Client ID: Run ID: **HC200714-82A** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.08	1.07	8.33		97	53-120				20	
Surr: O-TERPHENYL	1.62		1.67		97	69-120					

LCSD Sample ID: **HC200714-82** Units: **MG/L** Analysis Date: **7/22/2020 18:51**

Client ID: Run ID: **HC200714-82A** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	10.1	1.07	8.33		121	53-120		8.08	22	20	*+
Surr: O-TERPHENYL	2.05		1.67		123	69-120			24		*

MB Sample ID: **HC200714-82** Units: **MG/L** Analysis Date: **7/22/2020 18:09**

Client ID: Run ID: **HC200714-82A** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	MDL							Qual
Diesel Range Organics	0.38	1.1	0.37							J
Surr: O-TERPHENYL	1.48				89	69-120				

The following samples were analyzed in this batch:

2007104-1

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **HC200714-91-3** Instrument ID **MEE-1** Method: **RSK175**

LCS		Sample ID: HC200714-91			Units: UG/L		Analysis Date: 7/14/2020 14:49				
Client ID:		Run ID: HC200714-91A			Prep Date: 7/14/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	128	1	142		90	76-125				25	
ETHANE	250	2	267		94	70-120				25	
PROPANE	369	1	391		94	72-120				25	

LCSD		Sample ID: HC200714-91			Units: UG/L		Analysis Date: 7/14/2020 16:19				
Client ID:		Run ID: HC200714-91A			Prep Date: 7/14/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	137	1	142		96	76-125		128	7	25	
ETHANE	263	2	267		99	70-120		250	5	25	
PROPANE	386	1	391		99	72-120		369	5	25	

MB		Sample ID: HC200714-91			Units: UG/L		Analysis Date: 7/14/2020 14:52				
Client ID:		Run ID: HC200714-91A			Prep Date: 7/14/2020		DF: 1				
Analyte	Result	ReportLimit	MDL								
METHANE	ND	1	1								
ETHANE	ND	2	2								
PROPANE	ND	1	1								

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **IP200716-3-3** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM200716-3		Units: MG/L			Analysis Date: 7/20/2020 14:35				
Client ID:		Run ID: IM200720-11A2			Prep Date: 7/16/2020			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.106	0.001	0.1		106	85-115				20	
BORON	0.954	0.05	1		95	85-115				20	
CALCIUM	10.7	1	10		107	85-115				20	
IRON	5.36	0.15	5		107	85-115				20	
MAGNESIUM	9.93	0.1	10		99	85-115				20	
MANGANESE	0.107	0.004	0.1		107	85-115				20	
POTASSIUM	4.88	1	5		98	85-115				20	
SELENIUM	0.104	0.0015	0.1		104	85-115				20	
SODIUM	9.7	1	10		97	85-115				20	
STRONTIUM	0.107	0.001	0.1		107	85-115				20	

LCSD		Sample ID: IM200716-3		Units: MG/L			Analysis Date: 7/20/2020 14:41				
Client ID:		Run ID: IM200720-11A2			Prep Date: 7/16/2020			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.102	0.001	0.1		102	85-115		0.106	4	20	
BORON	0.954	0.05	1		95	85-115		0.954	0	20	
CALCIUM	11.2	1	10		112	85-115		10.7	4	20	
IRON	5.28	0.15	5		106	85-115		5.36	2	20	
MAGNESIUM	9.71	0.1	10		97	85-115		9.93	2	20	
MANGANESE	0.106	0.004	0.1		106	85-115		0.107	1	20	
POTASSIUM	4.89	1	5		98	85-115		4.88	0	20	
SELENIUM	0.104	0.0015	0.1		104	85-115		0.104	1	20	
SODIUM	9.74	1	10		97	85-115		9.7	0	20	
STRONTIUM	0.107	0.001	0.1		107	85-115		0.107	1	20	

Client: Western Water and Land, Inc.
Work Order: 2007104
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **IP200716-3-3** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP200713-3** Units: **MG/L** Analysis Date: **7/20/2020 14:29**
Client ID: Run ID: **IM200720-11A2** Prep Date: **7/16/2020** DF: **10**

Analyte	Result	ReportLimit	MDL	Qual
BARIUM	ND	0.001	0.00049	
BORON	ND	0.05	0.026	
CALCIUM	ND	1	0.18	
IRON	ND	0.15	0.071	
MAGNESIUM	ND	0.1	0.023	
MANGANESE	ND	0.004	0.0021	
POTASSIUM	ND	1	0.2	
SELENIUM	ND	0.0015	0.00067	
SODIUM	ND	1	0.13	
STRONTIUM	-0.0011	0.001	0.00024	

The following samples were analyzed in this batch:

2007104-1

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: VL200720-3-2 Instrument ID: HPV3 Method: SW8260_25

LCS		Sample ID: VL200720-3			Units: %REC		Analysis Date: 7/20/2020 10:58				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		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	80-120					
Surr: DIBROMOFLUOROMETHANE	25		25		100	80-120					
Surr: TOLUENE-D8	25		25		100	80-120					
BENZENE	10	1	10		100	80-120				20	
TOLUENE	9.66	1	10		97	80-120				20	
ETHYLBENZENE	9.19	1	10		92	80-120				20	
M+P-XYLENE	20	1	20		100	80-120				20	
O-XYLENE	9.82	1	10		98	80-120				20	

LCSD		Sample ID: VL200720-3			Units: %REC		Analysis Date: 7/20/2020 11:18				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.5		25		102	80-120			3		
Surr: DIBROMOFLUOROMETHANE	25.1		25		100	80-120			0		
Surr: TOLUENE-D8	25.3		25		101	80-120			1		
BENZENE	10.3	1	10		103	80-120		10	3	20	
TOLUENE	9.99	1	10		100	80-120		9.66	3	20	
ETHYLBENZENE	9.31	1	10		93	80-120		9.19	1	20	
M+P-XYLENE	19.7	1	20		98	80-120		20	2	20	
O-XYLENE	9.93	1	10		99	80-120		9.82	1	20	

MB		Sample ID: VL200720-3			Units: %REC		Analysis Date: 7/20/2020 12:46				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		DF: 1				
Analyte	Result	ReportLimit	MDL								Qual
Surr: 4-BROMOFLUOROBENZENE	24.5				98	80-120					
Surr: DIBROMOFLUOROMETHANE	25.9				104	80-120					
Surr: TOLUENE-D8	25.2				101	80-120					
BENZENE	ND	1	0.3								
TOLUENE	ND	1	0.34								
ETHYLBENZENE	ND	1	0.33								
M+P-XYLENE	ND	1	0.55								
O-XYLENE	ND	1	0.34								
TOTAL XYLENES	ND	1									

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: VL200720-3-6 Instrument ID HPV3 Method: SW8260_25

LCS		Sample ID: VL200720-33			Units: UG/L		Analysis Date: 7/20/2020 12:00				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	930	100	1000		93	75-121				20	

LCSD		Sample ID: VL200720-33			Units: UG/L		Analysis Date: 7/20/2020 12:20				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	986	100	1000		99	75-121		930	6	20	

MB		Sample ID: VL200720-3			Units: UG/L		Analysis Date: 7/20/2020 12:46				
Client ID:		Run ID: VL200720-3A			Prep Date: 7/20/2020		DF: 1				
Analyte	Result	ReportLimit	MDL								
GASOLINE RANGE ORGANICS	ND	100	51								

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **AK200714-1-2** Instrument ID **NONE** Method: **SM2320B**

LCS		Sample ID: AK200714-1			Units: MG/L		Analysis Date: 7/14/2020				
Client ID:		Run ID: AK200714-1a1			Prep Date: 7/14/2020		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	99	5	100		99	85-115				15	

LCSD		Sample ID: AK200714-1			Units: MG/L		Analysis Date: 7/14/2020				
Client ID:		Run ID: AK200714-1a1			Prep Date: 7/14/2020		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	98.9	5	100		99	85-115		99	0	15	

MB		Sample ID: AK200714-1			Units: MG/L		Analysis Date: 7/14/2020				
Client ID:		Run ID: AK200714-1a1			Prep Date: 7/14/2020		DF: 1				
Analyte	Result	ReportLimit	MDL								
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									
TOTAL ALKALINITY AS CaCO3	ND	5									

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **IC200709-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS		Sample ID: IC200709-1			Units: MG/L		Analysis Date: 7/9/2020 11:02				
Client ID:		Run ID: IC200709-1a2			Prep Date: 7/9/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10.5	0.2	10		105	90-110				15	
CHLORIDE	10.3	0.2	10		103	90-110				15	
FLUORIDE	5.14	0.1	5		103	90-110				15	
NITRATE AS N	10.3	0.2	10		103	90-110				15	
NITRITE AS N	5.14	0.15	5		103	90-110				15	
SULFATE	50.9	1	50		102	90-110				15	

LCSD		Sample ID: IC200709-1			Units: MG/L		Analysis Date: 7/9/2020 13:40				
Client ID:		Run ID: IC200709-1a2			Prep Date: 7/9/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10.4	0.2	10		104	90-110		10.5	2	15	
CHLORIDE	10.2	0.2	10		102	90-110		10.3	0	15	
FLUORIDE	5.02	0.1	5		100	90-110		5.14	2	15	
NITRATE AS N	10.2	0.2	10		102	90-110		10.3	1	15	
NITRITE AS N	5.14	0.15	5		103	90-110		5.14	0	15	
SULFATE	50.9	1	50		102	90-110		50.9	0	15	

MB		Sample ID: IC200709-1			Units: MG/L		Analysis Date: 7/9/2020 11:15					
Client ID:		Run ID: IC200709-1a2			Prep Date: 7/9/2020		DF: 1					
Analyte	Result	ReportLimit	MDL									Qual
BROMIDE	ND	0.2	0.064									
CHLORIDE	ND	0.2	0.076									
FLUORIDE	ND	0.1	0.039									
NITRATE AS N	ND	0.2	0.092									
NITRITE AS N	ND	0.15	0.069									
SULFATE	ND	1	0.53									

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
Work Order: 2007104
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **pH200710-1-1** Instrument ID **pH-2** Method: **SM4500-H**

CCV	Sample ID: ccv						Units: pH	Analysis Date: 7/10/2020				
Client ID:		Run ID: pH200710-1a1			Prep Date: 7/10/2020			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
PH	6.92	0.1	7			6.9-7.1						

ICV	Sample ID: icv						Units: pH	Analysis Date: 7/10/2020				
Client ID:		Run ID: pH200710-1a1			Prep Date: 7/10/2020			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
PH	7.07	0.1	7			6.9-7.1						

The following samples were analyzed in this batch:

2007104-1

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **SC200713-1-2** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: ccv1			Units: umhos/cm		Analysis Date: 7/13/2020				
Client ID:		Run ID: SC200713-1a1			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1360	1	1410		97	90-110					

CCV		Sample ID: ccv2			Units: umhos/cm		Analysis Date: 7/13/2020				
Client ID:		Run ID: SC200713-1a1			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1360	1	1410		96	90-110					

CCV		Sample ID: ccv3			Units: umhos/cm		Analysis Date: 7/13/2020				
Client ID:		Run ID: SC200713-1a1			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1330	1	1410		94	90-110					

ICV		Sample ID: icv			Units: umhos/cm		Analysis Date: 7/13/2020				
Client ID:		Run ID: SC200713-1a1			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	672	1	718		94	90-110					

The following samples were analyzed in this batch:

2007104-1

Client: Western Water and Land, Inc.
Work Order: 2007104
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **TD200714-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD200714-1** Units: **MG/L** Analysis Date: **7/17/2020**
 Client ID: Run ID: **TD200717-1A1** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	414	20	400		104	85-115				14	

MB Sample ID: **TD200714-1** Units: **MG/L** Analysis Date: **7/17/2020**
 Client ID: Run ID: **TD200717-1A1** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL DISSOLVED SOLIDS	ND	20		

The following samples were analyzed in this batch:

2007104-1

Client: Western Water and Land, Inc.
 Work Order: 2007104
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: TP200713-1-2 Instrument ID Spec Method: SM4500-P

LCS		Sample ID: TP200713-1			Units: MG/L		Analysis Date: 7/15/2020				
Client ID:		Run ID: TP200715-1A2			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.581	0.05	0.5		116	80-120				20	

LCSD		Sample ID: TP200713-1			Units: MG/L		Analysis Date: 7/15/2020				
Client ID:		Run ID: TP200715-1A2			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.573	0.05	0.5		115	80-120		0.581	1	20	

MB		Sample ID: TP200713-1			Units: MG/L		Analysis Date: 7/15/2020					
Client ID:		Run ID: TP200715-1A2			Prep Date: 7/13/2020		DF: 1					
Analyte	Result	ReportLimit	MDL									Qual
TOTAL PHOSPHORUS	0.03	0.05	0.016									J

MS		Sample ID: 2007104-1			Units: MG/L		Analysis Date: 7/15/2020				
Client ID: Firth 112927		Run ID: TP200715-1A2			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.306	0.05	0.25	0.052	102	80-120				20	

MSD		Sample ID: 2007104-1			Units: MG/L		Analysis Date: 7/15/2020				
Client ID: Firth 112927		Run ID: TP200715-1A2			Prep Date: 7/13/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.311	0.05	0.25	0.052	104	80-120		0.306	2	20	

The following samples were analyzed in this batch: