



2103516

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.

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.

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.

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
Specific conductance	SM2510B	1128
Total phosphorus	SM4500-P	1119
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.

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: Speakman A Pad
 Sample ID: Metcalf 69030-F
 Legal Location:
 Collection Date: 3/25/2021 15:30

Date: 19-Apr-21
 Work Order: 2103516
 Lab ID: 2103516-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B		Prep Date: 4/8/2021		PrepBy: TXS
BICARBONATE AS CaCO3	600		20	MG/L	1		4/8/2021
CARBONATE AS CaCO3	270		20	MG/L	1		4/8/2021
TOTAL ALKALINITY AS CaCO3	870		20	MG/L	1		4/8/2021
BIOLOGICAL ACTIVITY REACTION TEST			BART		Prep Date: 3/30/2021		PrepBy: TXS
IRON RELATED BACTERIA	2200		1	cfu/ml	1		4/7/2021
SLIME FORMING BACTERIA	2500		1	cfu/ml	1		4/7/2021
SULFATE REDUCING BACTERIA	500000		1	cfu/ml	1		4/7/2021
DIESEL RANGE ORGANICS			SW8015M		Prep Date: 3/29/2021		PrepBy: ASZ
Diesel Range Organics	ND		1	MG/L	1	0.52	3/30/2021 08:33
Surr: O-TERPHENYL	103		69-120	%REC	1		3/30/2021 08:33
DISSOLVED GASSES			RSK175		Prep Date: 3/29/2021		PrepBy: ASZ
METHANE	1.3		1	UG/L	1	1	3/29/2021 12:48
ETHANE	ND		2	UG/L	1	2	3/29/2021 12:48
PROPANE	ND		1	UG/L	1	1	3/29/2021 12:48
GC/MS VOLATILES			SW8260_25		Prep Date: 3/27/2021		PrepBy: TWK
BENZENE	ND		1	UG/L	1	0.3	3/28/2021 06:53
TOLUENE	ND		1	UG/L	1	0.34	3/28/2021 06:53
ETHYLBENZENE	ND		1	UG/L	1	0.33	3/28/2021 06:53
M+P-XYLENE	ND		1	UG/L	1	0.55	3/28/2021 06:53
O-XYLENE	ND		1	UG/L	1	0.34	3/28/2021 06:53
TOTAL XYLENES	ND		1	UG/L	1		3/28/2021 06:53
Surr: 4-BROMOFLUOROBENZENE	99		80-120	%REC	1		3/28/2021 06:53
Surr: DIBROMOFLUOROMETHANE	100		80-120	%REC	1		3/28/2021 06:53
Surr: TOLUENE-D8	98		80-120	%REC	1		3/28/2021 06:53
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	51	3/28/2021 06:53
ION CHROMATOGRAPHY			EPA300.0		Prep Date: 3/26/2021		PrepBy: LMC
BROMIDE	ND		1	MG/L	5	0.32	3/26/2021 23:05
CHLORIDE	610		10	MG/L	50	3.8	3/26/2021 23:19
FLUORIDE	0.92		0.5	MG/L	5	0.2	3/26/2021 23:05
NITRATE/NITRITE AS N	ND		0.15	MG/L	1		3/26/2021 23:05
NITRATE AS N	ND		1	MG/L	5	0.46	3/26/2021 23:05
NITRITE AS N	ND		0.75	MG/L	5	0.34	3/26/2021 23:05
SULFATE	3800		50	MG/L	50	26	3/26/2021 23:19
DISSOLVED METALS BY 200.8			EPA200.8		Prep Date: 4/1/2021		PrepBy: TXS
BARIUM	0.017		0.001	MG/L	10	0.00049	4/2/2021 11:06
BORON	0.8		0.05	MG/L	10	0.026	4/2/2021 11:06
CALCIUM	42		1	MG/L	10	0.18	4/2/2021 11:06
IRON	ND		0.15	MG/L	10	0.071	4/2/2021 11:06
MAGNESIUM	440		0.1	MG/L	10	0.023	4/2/2021 11:06
MANGANESE	0.078		0.004	MG/L	10	0.0021	4/2/2021 11:06

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: Speakman A Pad
Sample ID: Metcalf 69030-F
Legal Location:
Collection Date: 3/25/2021 15:30

Date: 19-Apr-21
Work Order: 2103516
Lab ID: 2103516-1
Matrix: WATER

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
POTASSIUM	15		1	MG/L	10	0.2	4/2/2021 11:06
SELENIUM	0.0015	J	0.0015	MG/L	10	0.00067	4/2/2021 11:06
SODIUM	1500		1	MG/L	10	0.13	4/2/2021 11:06
STRONTIUM	0.66		0.001	MG/L	10	0.00024	4/2/2021 11:06
PH			SM4500-H		Prep Date: 4/16/2021		PrepBy: LRB
PH	8.99		0.1	pH	1		4/16/2021
SPECIFIC CONDUCTANCE IN WATER			SM2510B		Prep Date: 4/16/2021		PrepBy: LRB
SPECIFIC CONDUCTIVITY	7980		1	umhos/cm	1		4/16/2021
TOTAL DISSOLVED SOLIDS			SM2540C		Prep Date: 4/1/2021		PrepBy: LMC
TOTAL DISSOLVED SOLIDS	5700		200	MG/L	1		4/12/2021
TOTAL PHOSPHORUS AS P			SM4500-P		Prep Date: 3/29/2021		PrepBy: LMC
TOTAL PHOSPHORUS	0.088		0.05	MG/L	1	0.016	3/30/2021

Client: Western Water and Land, Inc.
Project: Speakman A Pad
Sample ID: Metcalf 69030-F
Legal Location:
Collection Date: 3/25/2021 15:30

Date: 19-Apr-21
Work Order: 2103516
Lab ID: 2103516-1
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: 4/19/2021 10:19

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 2103516

Project: Speakman A Pad

Batch ID: **HC210329-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC210329-81** Units: **MG/L** Analysis Date: **3/29/2021 12:54**

Client ID: Run ID: **HC210329-81A** Prep Date: **3/29/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.92	1.07	8.33		95	53-120				20	
Surr: O-TERPHENYL	1.78		1.67		107	69-120					

LCSD Sample ID: **HC210329-81** Units: **MG/L** Analysis Date: **3/29/2021 13:15**

Client ID: Run ID: **HC210329-81A** Prep Date: **3/29/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.05	1.07	8.33		97	53-120		7.92	2	20	
Surr: O-TERPHENYL	1.81		1.67		108	69-120			2		

MB Sample ID: **HC210329-81** Units: **MG/L** Analysis Date: **3/29/2021 11:49**

Client ID: Run ID: **HC210329-81A** Prep Date: **3/29/2021** DF: **1**

Analyte	Result	ReportLimit	MDL							Qual
Diesel Range Organics	ND	1.1	0.54							
Surr: O-TERPHENYL	1.59				96	69-120				

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **HC210329-91-1** Instrument ID **MEE-1** Method: **RSK175**

LCS		Sample ID: HC210329-91			Units: UG/L		Analysis Date: 3/29/2021 10:54				
Client ID:		Run ID: HC210329-91A			Prep Date: 3/29/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	134	1	142		94	76-125				25	
ETHANE	246	2	267		92	70-120				25	
PROPANE	361	1	391		92	72-120				25	

LCSD		Sample ID: HC210329-91			Units: UG/L		Analysis Date: 3/29/2021 11:49				
Client ID:		Run ID: HC210329-91A			Prep Date: 3/29/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	144	1	142		102	76-125		134	7	25	
ETHANE	263	2	267		99	70-120		246	7	25	
PROPANE	384	1	391		98	72-120		361	6	25	

MB		Sample ID: HC210329-91			Units: UG/L		Analysis Date: 3/29/2021 10:59				
Client ID:		Run ID: HC210329-91A			Prep Date: 3/29/2021		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: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **IP210401-1-1** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM210401-1			Units: MG/L		Analysis Date: 4/2/2021 10:45				
Client ID:		Run ID: IM210402-10A3			Prep Date: 4/1/2021		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0906	0.001	0.1		91	85-115				20	
BORON	0.927	0.05	1		93	85-115				20	
CALCIUM	9.59	1	10		96	85-115				20	
IRON	4.58	0.15	5		92	85-115				20	
MAGNESIUM	9.16	0.1	10		92	85-115				20	
MANGANESE	0.0922	0.004	0.1		92	85-115				20	
POTASSIUM	4.96	1	5		99	85-115				20	
SELENIUM	0.0927	0.0015	0.1		93	85-115				20	
SODIUM	10.5	1	10		105	85-115				20	
STRONTIUM	0.0927	0.001	0.1		93	85-115				20	

LCSD		Sample ID: IM210401-1			Units: MG/L		Analysis Date: 4/2/2021 10:51				
Client ID:		Run ID: IM210402-10A3			Prep Date: 4/1/2021		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0866	0.001	0.1		87	85-115		0.0906	5	20	
BORON	0.923	0.05	1		92	85-115		0.927	0	20	
CALCIUM	9.61	1	10		96	85-115		9.59	0	20	
IRON	4.5	0.15	5		90	85-115		4.58	2	20	
MAGNESIUM	9.06	0.1	10		91	85-115		9.16	1	20	
MANGANESE	0.0905	0.004	0.1		90	85-115		0.0922	2	20	
POTASSIUM	4.9	1	5		98	85-115		4.96	1	20	
SELENIUM	0.0903	0.0015	0.1		90	85-115		0.0927	3	20	
SODIUM	10.4	1	10		104	85-115		10.5	1	20	
STRONTIUM	0.0927	0.001	0.1		93	85-115		0.0927	0	20	

Client: Western Water and Land, Inc.
Work Order: 2103516
Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **IP210401-1-1** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP210329-1** Units: **MG/L** Analysis Date: **4/2/2021 10:42**
Client ID: Run ID: **IM210402-10A3** Prep Date: **4/1/2021** DF: **10**

Analyte	Result	ReportLimit	MDL	Qual
BARIUM	ND	0.001	0.00049	
BORON	-0.034	0.05	0.026	J
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	ND	0.001	0.00024	

The following samples were analyzed in this batch:

2103516-1

Client: Western Water and Land, Inc.
 Work Order: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: VL210327-3-4 Instrument ID: HPV3 Method: SW8260_25

LCS		Sample ID: VL210327-3			Units: %REC		Analysis Date: 3/28/2021 00:45				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	23.9		25		96	80-120					
Surr: DIBROMOFLUOROMETHANE	24.6		25		99	80-120					
Surr: TOLUENE-D8	24.6		25		99	80-120					
BENZENE	9.27	1	10		93	80-120				20	
TOLUENE	9.3	1	10		93	80-120				20	
ETHYLBENZENE	9.58	1	10		96	80-120				20	
M+P-XYLENE	17.7	1	20		89	80-120				20	
O-XYLENE	9.31	1	10		93	80-120				20	

LCSD		Sample ID: VL210327-3			Units: %REC		Analysis Date: 3/28/2021 01:09				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.4		25		97	80-120			2		
Surr: DIBROMOFLUOROMETHANE	24.8		25		99	80-120			1		
Surr: TOLUENE-D8	24.4		25		97	80-120			1		
BENZENE	9.14	1	10		91	80-120		9.27	1	20	
TOLUENE	9.03	1	10		90	80-120		9.3	3	20	
ETHYLBENZENE	9.16	1	10		92	80-120		9.58	5	20	
M+P-XYLENE	17.3	1	20		87	80-120		17.7	2	20	
O-XYLENE	9.17	1	10		92	80-120		9.31	1	20	

MB		Sample ID: VL210327-3			Units: %REC		Analysis Date: 3/28/2021 03:22				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		DF: 1				
Analyte	Result	ReportLimit	MDL								Qual
Surr: 4-BROMOFLUOROBENZENE	25.2				101	80-120					
Surr: DIBROMOFLUOROMETHANE	24.8				99	80-120					
Surr: TOLUENE-D8	24.6				99	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: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: VL210327-3-5 Instrument ID HPV3 Method: SW8260_25

LCS		Sample ID: VL210327-33			Units: UG/L		Analysis Date: 3/28/2021 01:58				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1030	100	1000		103	75-121				20	

LCSD		Sample ID: VL210327-33			Units: UG/L		Analysis Date: 3/28/2021 02:33				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	981	100	1000		98	75-121		1030	5	20	

MB		Sample ID: VL210327-3			Units: UG/L		Analysis Date: 3/28/2021 03:22				
Client ID:		Run ID: VL210327-3A			Prep Date: 3/27/2021		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: 2103516
Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **AK210408-1-1** Instrument ID **NONE** Method: **SM2320B**

LCS Sample ID: **AK210408-1** Units: **MG/L** Analysis Date: **4/8/2021**
 Client ID: Run ID: **AK210408-1A1** Prep Date: **4/8/2021** 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	99.6	5	100		99	85-115				15	

MB Sample ID: **AK210408-1** Units: **MG/L** Analysis Date: **4/8/2021**
 Client ID: Run ID: **AK210408-1A1** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	MDL	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:

2103516-1

Client: Western Water and Land, Inc.
 Work Order: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **IC210326-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS		Sample ID: IC210326-1			Units: MG/L		Analysis Date: 3/26/2021 18:39				
Client ID:		Run ID: IC210326-2A3			Prep Date: 3/26/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.79	0.2	10		98	90-110				15	
CHLORIDE	9.72	0.2	10		97	90-110				15	
FLUORIDE	4.94	0.1	5		99	90-110				15	
NITRATE AS N	10.4	0.2	10		104	90-110				15	
NITRITE AS N	4.88	0.15	4.98		98	90-110				15	
SULFATE	49.5	1	50		99	90-110				15	

LCSD		Sample ID: IC210326-1			Units: MG/L		Analysis Date: 3/26/2021 21:20				
Client ID:		Run ID: IC210326-2A3			Prep Date: 3/26/2021		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		9.79	3	15	
CHLORIDE	10.3	0.2	10		103	90-110		9.72	6	15	
FLUORIDE	5.15	0.1	5		103	90-110		4.94	4	15	
NITRATE AS N	10.5	0.2	10		105	90-110		10.4	1	15	
NITRITE AS N	5.13	0.15	4.98		103	90-110		4.88	5	15	
SULFATE	51.5	1	50		103	90-110		49.5	4	15	

MB		Sample ID: IC210326-1			Units: MG/L		Analysis Date: 3/26/2021 16:13				
Client ID:		Run ID: IC210326-2A3			Prep Date: 3/26/2021		DF: 1				
Analyte	Result	ReportLimit	MDL								
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: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **PH210416-1-1** Instrument ID **NONE** Method: **SM4500-H**

CCV		Sample ID: CCV1			Units: pH		Analysis Date: 4/16/2021				
Client ID:		Run ID: PH210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.1	0.1	7			6.9-7.1					

CCV		Sample ID: CCV2			Units: pH		Analysis Date: 4/16/2021				
Client ID:		Run ID: PH210416-1A1			Prep Date: 4/16/2021		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					

CCV		Sample ID: CCV3			Units: pH		Analysis Date: 4/16/2021				
Client ID:		Run ID: PH210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.1	0.1	7			6.9-7.1					

ICV		Sample ID: ICV			Units: pH		Analysis Date: 4/16/2021				
Client ID:		Run ID: PH210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.1	0.1	7			6.9-7.1					

The following samples were analyzed in this batch:

2103516-1

Client: Western Water and Land, Inc.
 Work Order: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **SC210416-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: CCV1			Units: umhos/cm		Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1310	1	1410		93	90-110					

CCV		Sample ID: CCV2			Units: umhos/cm		Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1490	1	1410		106	90-110					

CCV		Sample ID: CCV3			Units: umhos/cm		Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1480	1	1410		105	90-110					

ICV		Sample ID: ICV			Units: umhos/cm		Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	707	1	718		98	90-110					

The following samples were analyzed in this batch:

2103516-1

Client: Western Water and Land, Inc.
Work Order: 2103516
Project: Speakman A Pad

QC BATCH REPORT

Batch ID: **TD210401-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD210401-1** Units: **MG/L** Analysis Date: **4/12/2021**
 Client ID: Run ID: **TD210412-1A1** Prep Date: **4/1/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	379	20	400		95	85-115				14	

MB Sample ID: **TD210401-1** Units: **MG/L** Analysis Date: **4/12/2021**
 Client ID: Run ID: **TD210412-1A1** Prep Date: **4/1/2021** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL DISSOLVED SOLIDS	ND	20		

The following samples were analyzed in this batch:

2103516-1

Client: Western Water and Land, Inc.
 Work Order: 2103516
 Project: Speakman A Pad

QC BATCH REPORT

Batch ID: TP210329-1-1 Instrument ID Spec Method: SM4500-P

LCS		Sample ID: TP210329-1			Units: MG/L		Analysis Date: 3/30/2021				
Client ID:		Run ID: TP210330-1A2			Prep Date: 3/29/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.547	0.05	0.5		109	80-120				20	

LCSD		Sample ID: TP210329-1			Units: MG/L		Analysis Date: 3/30/2021				
Client ID:		Run ID: TP210330-1A2			Prep Date: 3/29/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.517	0.05	0.5		103	80-120		0.547	6	20	

MB		Sample ID: TP210329-1			Units: MG/L		Analysis Date: 3/30/2021				
Client ID:		Run ID: TP210330-1A2			Prep Date: 3/29/2021		DF: 1				
Analyte	Result	ReportLimit	MDL								
TOTAL PHOSPHORUS	ND	0.05	0.016								

The following samples were analyzed in this batch: