



2010144

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.

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

Surrogate	Sample	Direction
O-terphenyl	LCS	High

Because the sensitivity of the analytical system increased and the sample was less than the reporting limit for DRO, no further action was taken. DRO was in control in both the LCS and LCSD.

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.

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: Starkey CWMF
 Sample ID: Puckett 185334
 Legal Location:
 Collection Date: 10/6/2020 11:45

Date: 29-Oct-20
 Work Order: 2010144
 Lab ID: 2010144-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B		Prep Date: 10/10/2020 PrepBy: KJS		
BICARBONATE AS CaCO3	460		20	MG/L	1		10/10/2020
CARBONATE AS CaCO3	ND		20	MG/L	1		10/10/2020
TOTAL ALKALINITY AS CaCO3	460		20	MG/L	1		10/10/2020
BIOLOGICAL ACTIVITY REACTION TEST			BART		Prep Date: 10/12/2020 PrepBy: JML		
IRON RELATED BACTERIA	35000		1	cfu/ml	1		10/20/2020
SLIME FORMING BACTERIA	440000		1	cfu/ml	1		10/20/2020
SULFATE REDUCING BACTERIA	6000		1	cfu/ml	1		10/20/2020
DIESEL RANGE ORGANICS			SW8015M		Prep Date: 10/8/2020 PrepBy: JRS		
Diesel Range Organics	0.74	J	1	MG/L	1	0.52	10/10/2020 14:23
Surr: O-TERPHENYL	94		69-120	%REC	1		10/10/2020 14:23
DISSOLVED GASSES			RSK175		Prep Date: 10/12/2020 PrepBy: ASZ		
METHANE	ND		1	UG/L	1	1	10/12/2020 18:44
ETHANE	ND		2	UG/L	1	2	10/12/2020 18:44
PROPANE	ND		1	UG/L	1	1	10/12/2020 18:44
GC/MS VOLATILES			SW8260_25		Prep Date: 10/19/2020 PrepBy: TWK		
BENZENE	ND		1	UG/L	1	0.3	10/20/2020 02:22
TOLUENE	ND		1	UG/L	1	0.34	10/20/2020 02:22
ETHYLBENZENE	ND		1	UG/L	1	0.33	10/20/2020 02:22
M+P-XYLENE	ND		1	UG/L	1	0.55	10/20/2020 02:22
O-XYLENE	ND		1	UG/L	1	0.34	10/20/2020 02:22
TOTAL XYLENES	ND		1	UG/L	1		10/20/2020 02:22
Surr: 4-BROMOFLUOROBENZENE	104		80-120	%REC	1		10/20/2020 02:22
Surr: DIBROMOFLUOROMETHANE	101		80-120	%REC	1		10/20/2020 02:22
Surr: TOLUENE-D8	100		80-120	%REC	1		10/20/2020 02:22
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	51	10/20/2020 02:22
ION CHROMATOGRAPHY			EPA300.0		Prep Date: 10/7/2020 PrepBy: KJS		
BROMIDE	0.078	J	0.2	MG/L	1	0.064	10/7/2020 15:59
CHLORIDE	34		2	MG/L	10	0.76	10/7/2020 16:13
FLUORIDE	1.4		0.1	MG/L	1	0.039	10/7/2020 15:59
NITRATE/NITRITE AS N	4.2		0.15	MG/L	1		10/7/2020 15:59
NITRATE AS N	4.2		0.2	MG/L	1	0.092	10/7/2020 15:59
NITRITE AS N	ND		0.15	MG/L	1	0.069	10/7/2020 15:59
SULFATE	200		10	MG/L	10	5.3	10/7/2020 16:13
METALS BY 200.8			EPA200.8		Prep Date: 10/23/2020 PrepBy: JML		
BARIUM	0.033		0.001	MG/L	10	0.00049	10/28/2020 15:39
BORON	0.19		0.05	MG/L	10	0.026	10/28/2020 15:39
CALCIUM	120		1	MG/L	10	0.18	10/28/2020 15:39
IRON	ND		0.15	MG/L	10	0.071	10/28/2020 15:39
MAGNESIUM	50		0.1	MG/L	10	0.023	10/28/2020 15:39
MANGANESE	0.12		0.004	MG/L	10	0.0021	10/28/2020 15:39

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: Starkey CWMF
Sample ID: Puckett 185334
Legal Location:
Collection Date: 10/6/2020 11:45

Date: 29-Oct-20
Work Order: 2010144
Lab ID: 2010144-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
POTASSIUM	5.9		1	MG/L	10	0.2	10/28/2020 15:39
SELENIUM	0.011		0.0015	MG/L	10	0.00067	10/28/2020 15:39
SODIUM	110		1	MG/L	10	0.13	10/28/2020 15:39
STRONTIUM	1.6		0.001	MG/L	10	0.00024	10/28/2020 15:39
PH			SM4500-H				Prep Date: 10/8/2020 PrepBy: LMC
PH	7.79		0.1	pH	1		10/8/2020
SPECIFIC CONDUCTANCE IN WATER			SM2510B				Prep Date: 10/8/2020 PrepBy: LMC
SPECIFIC CONDUCTIVITY	1329		1	umhos/cm	1		10/8/2020
TOTAL DISSOLVED SOLIDS			SM2540C				Prep Date: 10/13/2020 PrepBy: LMC
TOTAL DISSOLVED SOLIDS	770		20	MG/L	1		10/16/2020
TOTAL PHOSPHORUS AS P			SM4500-P				Prep Date: 10/9/2020 PrepBy: LMC
TOTAL PHOSPHORUS	0.03	J	0.05	MG/L	1	0.016	10/9/2020

Client: Western Water and Land, Inc.
Project: Starkey CWMF
Sample ID: Puckett 185334
Legal Location:
Collection Date: 10/6/2020 11:45

Date: 29-Oct-20
Work Order: 2010144
Lab ID: 2010144-1
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: 10/29/2020 5:29

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 2010144

Project: Starkey CWMF

Batch ID: **HC201008-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS		Sample ID: HC201008-81			Units: MG/L		Analysis Date: 10/10/2020 11:52				
Client ID:		Run ID: HC201008-81A					Prep Date: 10/8/2020		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.85	1.07	8.33		106	53-120				20	
Surr: O-TERPHENYL	2.11		1.67		127	69-120					*

LCSD		Sample ID: HC201008-81			Units: MG/L		Analysis Date: 10/10/2020 12:14				
Client ID:		Run ID: HC201008-81A					Prep Date: 10/8/2020		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.05	1.07	8.33		97	53-120		8.85	9	20	
Surr: O-TERPHENYL	1.87		1.67		112	69-120			12		

MB		Sample ID: HC201008-81			Units: MG/L		Analysis Date: 10/10/2020 11:31				
Client ID:		Run ID: HC201008-81A					Prep Date: 10/8/2020		DF: 1		
Analyte	Result	ReportLimit	MDL								
Diesel Range Organics	ND	1.1	0.54								
Surr: O-TERPHENYL	1.6			96	69-120						

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **HC201012-91-1** Instrument ID **MEE-1** Method: **RSK175**

LCS		Sample ID: HC201012-91			Units: UG/L		Analysis Date: 10/12/2020 17:38				
Client ID:		Run ID: HC201012-91A			Prep Date: 10/12/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	117	1	142		82	76-125				25	
ETHANE	225	2	267		84	70-120				25	
PROPANE	330	1	391		84	72-120				25	

LCSD		Sample ID: HC201012-91			Units: UG/L		Analysis Date: 10/12/2020 18:38				
Client ID:		Run ID: HC201012-91A			Prep Date: 10/12/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	126	1	142		88	76-125		117	7	25	
ETHANE	239	2	267		90	70-120		225	6	25	
PROPANE	350	1	391		89	72-120		330	6	25	

MB		Sample ID: HC201012-91			Units: UG/L		Analysis Date: 10/12/2020 18:03				
Client ID:		Run ID: HC201012-91A			Prep Date: 10/12/2020		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: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **IP201023-4-6** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM201023-4			Units: MG/L		Analysis Date: 10/28/2020 14:30				
Client ID:		Run ID: IM201028-10A9			Prep Date: 10/23/2020		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	0.975	0.05	1		97	85-115				20	
CALCIUM	10.2	1	10		102	85-115				20	
IRON	5.17	0.15	5		103	85-115				20	
MAGNESIUM	10	0.1	10		100	85-115				20	
MANGANESE	0.0952	0.004	0.1		95	85-115				20	
POTASSIUM	5.26	1	5		105	85-115				20	
SELENIUM	0.106	0.0015	0.1		106	85-115				20	
SODIUM	11.2	1	10		112	85-115				20	
STRONTIUM	0.0999	0.001	0.1		100	85-115				20	

LCSD		Sample ID: IM201023-4			Units: MG/L		Analysis Date: 10/28/2020 14:36				
Client ID:		Run ID: IM201028-10A9			Prep Date: 10/23/2020		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.105	0.001	0.1		105	85-115		0.103	2	20	
BORON	1	0.05	1		100	85-115		0.975	3	20	
CALCIUM	10.3	1	10		103	85-115		10.2	1	20	
IRON	5.22	0.15	5		104	85-115		5.17	1	20	
MAGNESIUM	10.1	0.1	10		101	85-115		10	1	20	
MANGANESE	0.0942	0.004	0.1		94	85-115		0.0952	1	20	
POTASSIUM	5.2	1	5		104	85-115		5.26	1	20	
SELENIUM	0.102	0.0015	0.1		102	85-115		0.106	4	20	
SODIUM	11.3	1	10		113	85-115		11.2	1	20	
STRONTIUM	0.0981	0.001	0.1		98	85-115		0.0999	2	20	

Client: Western Water and Land, Inc.
Work Order: 2010144
Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **IP201023-4-6** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP201013-4** Units: **MG/L** Analysis Date: **10/28/2020 14:24**
Client ID: Run ID: **IM201028-10A9** Prep Date: **10/23/2020** 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	ND	0.001	0.00024	

The following samples were analyzed in this batch:

2010144-1

Client: Western Water and Land, Inc.
 Work Order: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: VL201019-3-2 Instrument ID HPSV3 Method: SW8260_25

LCS		Sample ID: VL201019-3			Units: UG/L		Analysis Date: 10/19/2020 17:42				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1190	100	1000		119	75-121				20	

LCSD		Sample ID: VL201019-3			Units: UG/L		Analysis Date: 10/19/2020 18:02				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1120	100	1000		112	75-121		1190	7	20	

MB		Sample ID: VL201019-3			Units: UG/L		Analysis Date: 10/19/2020 19:24				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		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: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: VL201019-3-4 Instrument ID HPSV3 Method: SW8260_25

LCS		Sample ID: VL201019-3			Units: %REC		Analysis Date: 10/19/2020 17:42				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26.6		25		106	80-120					
Surr: DIBROMOFLUOROMETHANE	25.1		25		100	80-120					
Surr: TOLUENE-D8	24.3		25		97	80-120					
BENZENE	9.6	1	10		96	80-120				20	
TOLUENE	9.11	1	10		91	80-120				20	
ETHYLBENZENE	9.61	1	10		96	80-120				20	
M+P-XYLENE	18.5	1	20		92	80-120				20	
O-XYLENE	9.29	1	10		93	80-120				20	

LCSD		Sample ID: VL201019-3			Units: %REC		Analysis Date: 10/19/2020 18:02				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26.6		25		106	80-120			0		
Surr: DIBROMOFLUOROMETHANE	24.9		25		100	80-120			1		
Surr: TOLUENE-D8	25		25		100	80-120			3		
BENZENE	10.8	1	10		108	80-120		9.6	12	20	
TOLUENE	10.5	1	10		105	80-120		9.11	14	20	
ETHYLBENZENE	11	1	10		110	80-120		9.61	14	20	
M+P-XYLENE	21.7	1	20		109	80-120		18.5	16	20	
O-XYLENE	10.8	1	10		108	80-120		9.29	15	20	

MB		Sample ID: VL201019-3			Units: %REC		Analysis Date: 10/19/2020 19:24				
Client ID:		Run ID: VL201019-3A			Prep Date: 10/19/2020		DF: 1				
Analyte	Result	ReportLimit	MDL								Qual
Surr: 4-BROMOFLUOROBENZENE	26.2				105	80-120					
Surr: DIBROMOFLUOROMETHANE	24.6				99	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: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **AK201010-2-1** Instrument ID **NONE** Method: **SM2320B**

LCS		Sample ID: AK201010-2			Units: MG/L		Analysis Date: 10/10/2020				
Client ID:		Run ID: AK201010-1a1			Prep Date: 10/10/2020		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	5	100		99	85-115				15	

LCSD		Sample ID: AK201010-2			Units: MG/L		Analysis Date: 10/10/2020				
Client ID:		Run ID: AK201010-1a1			Prep Date: 10/10/2020		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	100	5	100		100	85-115		99.5	1	15	

MB		Sample ID: AK201010-2			Units: MG/L		Analysis Date: 10/10/2020				
Client ID:		Run ID: AK201010-1a1			Prep Date: 10/10/2020		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: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **IC201007-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS		Sample ID: IC201007-1			Units: MG/L		Analysis Date: 10/7/2020 11:21				
Client ID:		Run ID: IC201007-1a3			Prep Date: 10/7/2020		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	4.9	0.1	5		98	90-110				15	
NITRATE AS N	10.1	0.2	10		101	90-110				15	
NITRITE AS N	4.97	0.15	4.99		100	90-110				15	
SULFATE	50.6	1	50		101	90-110				15	

LCSD		Sample ID: IC201007-1			Units: MG/L		Analysis Date: 10/7/2020 13:59				
Client ID:		Run ID: IC201007-1a3			Prep Date: 10/7/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.9	0.2	10		99	90-110		10.1	2	15	
CHLORIDE	10.1	0.2	10		101	90-110		10.1	1	15	
FLUORIDE	4.87	0.1	5		97	90-110		4.9	0	15	
NITRATE AS N	10.1	0.2	10		101	90-110		10.1	1	15	
NITRITE AS N	4.99	0.15	4.99		100	90-110		4.97	0	15	
SULFATE	50.3	1	50		101	90-110		50.6	0	15	

MB		Sample ID: IC201007-1			Units: MG/L		Analysis Date: 10/7/2020 11:34				
Client ID:		Run ID: IC201007-1a3			Prep Date: 10/7/2020		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: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **pH201008-1-1** Instrument ID **pH-2** Method: **SM4500-H**

CCV		Sample ID: CCV1			Units: pH		Analysis Date: 10/8/2020				
Client ID:		Run ID: pH201008-1A1			Prep Date: 10/8/2020		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				6.9-7.1					

CCV		Sample ID: CCV2			Units: pH		Analysis Date: 10/8/2020				
Client ID:		Run ID: pH201008-1A1			Prep Date: 10/8/2020		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				6.9-7.1					

ICV		Sample ID: ICV			Units: pH		Analysis Date: 10/8/2020				
Client ID:		Run ID: pH201008-1A1			Prep Date: 10/8/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.02	0.1				6.9-7.1					

The following samples were analyzed in this batch:

2010144-1

Client: Western Water and Land, Inc.
 Work Order: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **SC201008-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV	Sample ID: CCV					Units: umhos/cm	Analysis Date: 10/8/2020				
Client ID:		Run ID: SC201008-1A1				Prep Date: 10/8/2020		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1420	1	1410		101	90-110					

ICV	Sample ID: ICV					Units: umhos/cm	Analysis Date: 10/8/2020				
Client ID:		Run ID: SC201008-1A1				Prep Date: 10/8/2020		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:

2010144-1

Client: Western Water and Land, Inc.
Work Order: 2010144
Project: Starkey CWMF

QC BATCH REPORT

Batch ID: **TD201013-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD201013-1** Units: **MG/L** Analysis Date: **10/16/2020**
 Client ID: Run ID: **TD201016-1A1** Prep Date: **10/13/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	389	20	400		97	85-115				14	

MB Sample ID: **TD201013-1** Units: **MG/L** Analysis Date: **10/16/2020**
 Client ID: Run ID: **TD201016-1A1** Prep Date: **10/13/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL DISSOLVED SOLIDS	ND	20		

The following samples were analyzed in this batch:

2010144-1

Client: Western Water and Land, Inc.
 Work Order: 2010144
 Project: Starkey CWMF

QC BATCH REPORT

Batch ID: TP201009-1-1 Instrument ID Spec Method: SM4500-P

LCS		Sample ID: TP201009-1			Units: MG/L		Analysis Date: 10/9/2020				
Client ID:		Run ID: TP201009-1A2			Prep Date: 10/9/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.572	0.05	0.5		114	80-120				20	

LCSD		Sample ID: TP201009-1			Units: MG/L		Analysis Date: 10/9/2020				
Client ID:		Run ID: TP201009-1A2			Prep Date: 10/9/2020		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.559	0.05	0.5		112	80-120		0.572	2	20	

MB		Sample ID: TP201009-1			Units: MG/L		Analysis Date: 10/9/2020					
Client ID:		Run ID: TP201009-1A2			Prep Date: 10/9/2020		DF: 1					
Analyte	Result	ReportLimit	MDL									Qual
TOTAL PHOSPHORUS	0.022	0.05	0.016									J

The following samples were analyzed in this batch: