



Monday, May 22, 2017

Bruce Smith
Western Water and Land, Inc.
743 Horizon Ct., Suite 330
Grand Junction, CO 81506

Re: ALS Workorder: 1704565
Project Name: TEP GM 245-1 BWQ
Project Number:

Dear Mr. Smith:

Two water samples were received from Western Water and Land, Inc., on 4/27/2017. The samples were scheduled for the following analyses:

GC/MS Volatiles
Inorganics
Metals
Total Extractable Petroleum Hydrocarbons (Diesel)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Shiloh J. Summy
Project Manager



1704565

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).

Sample -2 had a pH > 2 at the time of analysis. Sample -1 had a pH < 2 at the time of analysis.

All acceptance criteria were met.

DRO:

The samples were 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 samples were 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 samples were analyzed for dissolved metals. The samples were filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than 2 prior to analysis.

All acceptance criteria were met.

Inorganics:

The samples were 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
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

Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Sulfate	1704565-1MS & MSD

The sulfate concentration in the native sample was above the analytical range; therefore accurate quantitation of MS/MSD recoveries were not possible. The LCS, ICV, and CCV results indicate the procedure was in control for this analyte.

All remaining acceptance criteria were met.

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Sample Number(s) Cross-Reference Table

OrderNum: 1704565

Client Name: Western Water and Land, Inc.

Client Project Name: TEP GM 245-1 BWQ

Client Project Number:

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Hayes Gulch DWN	1704565-1		WATER	26-Apr-17	10:50
Hayes Gulch UP	1704565-2		WATER	26-Apr-17	11:15



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 2026

WORKORDER # **1704565**

PAGE **1** of **1**
 DISPOSAL Lab or Return to Client

DATE **4-26-17**
 TURNAROUND **standard**

SAMPLER **nick**
 PROJECT NO.
 EDD FORMAT
 PURCHASE ORDER
 BILL TO COMPANY **TEP Rocky Mtn LLC**
 INVOICE ATTN TO **Mike Gardner**
 ADDRESS **1058 CR 215**
 CITY/STATE/ZIP **Parachute, CO 81635**
 PHONE **(970) 250-5778**
 FAX
 E-MAIL **mgardner@terreap.com**

PROJECT NAME **TEP GM 245-1 BWQ**
 FACILITY NAME
 FACILITY ID (APII)
 COMPANY NAME **Western Water & Land, Inc.**
 SEND REPORT TO **Bruce Smith**
 ADDRESS **743 Horizon Court, Suite 330**
 CITY/STATE/ZIP **Grand Junction, CO 81506**
 PHONE **(970) 242-0170**
 FAX
 E-MAIL **bsmith@westernwaterandland.com**

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
①	Hayes Guich Down	SW	4-26-17	1050	8	1	IV
②	Hayes Guich UP	SW	4-26-17	1115	8	1	IV

Field Parameters		Temp (°C)	DO (%)	DO (mg/L)	DO (mg/L)	SpC (uS/cm)	SpC (uS/cm)	ORP (mv)	ORP (mv)	Turb (NTUs)	Turb (NTUs)	Disch (gpm)	Disch (gpm)
Hayes Guich DOWN		12.5	8.72	8.77	79.0	819	819	174.3	174.3	723	723	12.59	12.59
Hayes Guich UP		11.7	8.49	8.51	8.51	724	724	172.1	172.1			8.79	8.79

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: **5 of 22**

RELINQUISHED BY: *[Signature]* DATE: **4-26-17** TIME: **1140**
 RECEIVED BY: *[Signature]* DATE: **4-26-17** TIME: **1230**
 RELINQUISHED BY: *[Signature]* DATE: **4-26-17** TIME: **1230**
 RECEIVED BY: *[Signature]* DATE: **4-26-17** TIME: **1029**

Printed Name: **Shelley Goodwin**
 Signature: *[Signature]*
 Received By: *[Signature]*
 Received By: *[Signature]*
 Received By: *[Signature]*

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: WESTERN WATER

Workorder No: 1704565

Project Manager: SJS

Initials: VT Date: 4/27/17

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ___ dusting ___ moderate ___ heavy	N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4	RAD ONLY	<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>5.8</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>12</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO NO Contact: _____ Date/Time: _____

Project Manager Signature / Date: *Shelah Lumm*

1704565

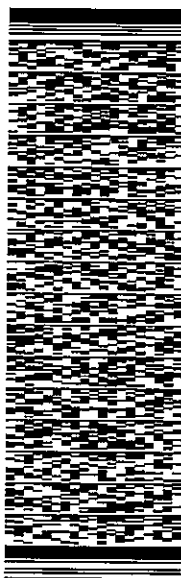
ORIGIN ID: RLA (616) 296-1033
NICK MARTINEZ
ALS ENVIRONMENTAL
127 E. 1ST STREET
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 26APR17
ACT WT: 32.00 LB
CAD: 108058167/INLET3850
DIMS: 13x18x16 IN
BILL RECIPIENT

TO **SAMPLE RECEIVING**
ALS LABORATORY GROUP
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1511 REF: 0226172
NV
PO: PARACHUTE DEPT:

546J2/CFD653C1



J171517621401ur

TRK# 7790 0231 9815 THU - 27 APR 3:00P
0201 STANDARD OVERNIGHT

72 FTCA 80524
CO-US DEN



1-21

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: TEP GM 245-1 BWQ
 Sample ID: Hayes Gulch DWN
 Legal Location:
 Collection Date: 4/26/2017 10:50

Date: 11-May-17
 Work Order: 1704565
 Lab ID: 1704565-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B		Prep Date: 5/4/2017		PrepBy: AMG
BICARBONATE AS CaCO3	260		20	MG/L	1		5/4/2017
CARBONATE AS CaCO3	ND		20	MG/L	1		5/4/2017
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1		5/4/2017
DIESEL RANGE ORGANICS			SW8015M		Prep Date: 5/3/2017		PrepBy: JFN
Diesel Range Organics	0.25	J	0.6	MG/L	1	0.17	5/3/2017 14:57
Surr: O-TERPHENYL	103		63-126	%REC	1		5/3/2017 14:57
GC/MS VOLATILES			SW8260_25		Prep Date: 4/28/2017		PrepBy: JXK
BENZENE	ND		1	UG/L	1	0.32	4/28/2017 17:48
TOLUENE	ND		1	UG/L	1	0.31	4/28/2017 17:48
ETHYLBENZENE	ND		1	UG/L	1	0.31	4/28/2017 17:48
M+P-XYLENE	ND		1	UG/L	1	0.31	4/28/2017 17:48
O-XYLENE	ND		1	UG/L	1	0.31	4/28/2017 17:48
TOTAL XYLENES	ND		1	UG/L	1		4/28/2017 17:48
Surr: 4-BROMOFLUOROBENZENE	100		85-115	%REC	1		4/28/2017 17:48
Surr: DIBROMOFLUOROMETHANE	104		84-118	%REC	1		4/28/2017 17:48
Surr: TOLUENE-D8	99		85-115	%REC	1		4/28/2017 17:48
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	47	4/28/2017 17:48
ION CHROMATOGRAPHY			EPA300.0		Prep Date: 4/28/2017		PrepBy: AMG
BROMIDE	ND		0.2	MG/L	1	0.06	5/1/2017 12:12
CHLORIDE	11		0.2	MG/L	1	0.06	5/1/2017 12:12
FLUORIDE	0.45		0.1	MG/L	1	0.03	5/1/2017 12:12
NITRATE/NITRITE AS N	0.24		0.1	MG/L	1		5/1/2017 12:12
NITRATE AS N	0.24		0.2	MG/L	1	0.06	5/1/2017 12:12
NITRITE AS N	ND		0.1	MG/L	1	0.03	5/1/2017 12:12
SULFATE	110		5	MG/L	5	0.75	5/2/2017 15:10
METALS BY 200.8			EPA200.8		Prep Date: 5/4/2017		PrepBy: JML
BARIUM	0.053		0.001	MG/L	10	0.0006	5/9/2017 13:24
BORON	0.065		0.05	MG/L	10	0.015	5/8/2017 19:50
CALCIUM	49		1	MG/L	10	0.3	5/8/2017 19:50
IRON	0.087	J	0.1	MG/L	10	0.044	5/8/2017 19:50
MAGNESIUM	34		0.1	MG/L	10	0.03	5/8/2017 19:50
MANGANESE	0.0058		0.002	MG/L	10	0.0006	5/8/2017 19:50
POTASSIUM	3.4		1	MG/L	10	0.3	5/8/2017 19:50
SELENIUM	0.0013		0.001	MG/L	10	0.0003	5/8/2017 19:50
SODIUM	62		1	MG/L	10	0.3	5/8/2017 19:50
STRONTIUM	1.2		0.001	MG/L	10	0.00049	5/8/2017 19:50
PH			SM4500-H		Prep Date: 5/1/2017		PrepBy: HMA
PH	8.54		0.1	pH	1		5/1/2017
SPECIFIC CONDUCTANCE IN WATER			SM2510B		Prep Date: 5/1/2017		PrepBy: HMA
SPECIFIC CONDUCTIVITY	687		1	umhos/cm	1		5/1/2017

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: TEP GM 245-1 BWQ
Sample ID: Hayes Gulch DWN
Legal Location:
Collection Date: 4/26/2017 10:50

Date: 11-May-17
Work Order: 1704565
Lab ID: 1704565-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
TOTAL DISSOLVED SOLIDS			SM2540C		Prep Date: 4/28/2017		PrepBy: HMA
TOTAL DISSOLVED SOLIDS	460		20	MG/L	1		5/1/2017

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SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: TEP GM 245-1 BWQ
 Sample ID: Hayes Gulch UP
 Legal Location:
 Collection Date: 4/26/2017 11:15

Date: 11-May-17
 Work Order: 1704565
 Lab ID: 1704565-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B		Prep Date: 5/4/2017		PrepBy: AMG
BICARBONATE AS CaCO3	260		20	MG/L	1		5/4/2017
CARBONATE AS CaCO3	ND		20	MG/L	1		5/4/2017
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1		5/4/2017
DIESEL RANGE ORGANICS			SW8015M		Prep Date: 5/3/2017		PrepBy: JFN
Diesel Range Organics	ND		0.6	MG/L	1	0.17	5/3/2017 15:20
Surr: O-TERPHENYL	94		63-126	%REC	1		5/3/2017 15:20
GC/MS VOLATILES			SW8260_25		Prep Date: 4/28/2017		PrepBy: JXK
BENZENE	ND		1	UG/L	1	0.32	4/28/2017 18:11
TOLUENE	ND		1	UG/L	1	0.31	4/28/2017 18:11
ETHYLBENZENE	ND		1	UG/L	1	0.31	4/28/2017 18:11
M+P-XYLENE	ND		1	UG/L	1	0.31	4/28/2017 18:11
O-XYLENE	ND		1	UG/L	1	0.31	4/28/2017 18:11
TOTAL XYLENES	ND		1	UG/L	1		4/28/2017 18:11
Surr: 4-BROMOFLUOROBENZENE	100		85-115	%REC	1		4/28/2017 18:11
Surr: DIBROMOFLUOROMETHANE	103		84-118	%REC	1		4/28/2017 18:11
Surr: TOLUENE-D8	98		85-115	%REC	1		4/28/2017 18:11
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	47	4/28/2017 18:11
ION CHROMATOGRAPHY			EPA300.0		Prep Date: 4/28/2017		PrepBy: AMG
BROMIDE	ND		0.2	MG/L	1	0.06	5/1/2017 13:27
CHLORIDE	12		0.2	MG/L	1	0.06	5/1/2017 13:27
FLUORIDE	0.48		0.1	MG/L	1	0.03	5/1/2017 13:27
NITRATE/NITRITE AS N	0.22		0.1	MG/L	1		5/1/2017 13:27
NITRATE AS N	0.22		0.2	MG/L	1	0.06	5/1/2017 13:27
NITRITE AS N	ND		0.1	MG/L	1	0.03	5/1/2017 13:27
SULFATE	110		5	MG/L	5	0.75	5/2/2017 15:25
METALS BY 200.8			EPA200.8		Prep Date: 5/4/2017		PrepBy: JML
BARIUM	0.045		0.001	MG/L	10	0.0006	5/9/2017 13:27
BORON	0.068		0.05	MG/L	10	0.015	5/8/2017 19:53
CALCIUM	50		1	MG/L	10	0.3	5/8/2017 19:53
IRON	0.12		0.1	MG/L	10	0.044	5/8/2017 19:53
MAGNESIUM	34		0.1	MG/L	10	0.03	5/8/2017 19:53
MANGANESE	0.0037		0.002	MG/L	10	0.0006	5/8/2017 19:53
POTASSIUM	3.5		1	MG/L	10	0.3	5/8/2017 19:53
SELENIUM	0.0013		0.001	MG/L	10	0.0003	5/8/2017 19:53
SODIUM	62		1	MG/L	10	0.3	5/8/2017 19:53
STRONTIUM	1.2		0.001	MG/L	10	0.00049	5/8/2017 19:53
PH			SM4500-H		Prep Date: 5/1/2017		PrepBy: HMA
PH	8.5		0.1	pH	1		5/1/2017
SPECIFIC CONDUCTANCE IN WATER			SM2510B		Prep Date: 5/1/2017		PrepBy: HMA
SPECIFIC CONDUCTIVITY	697		1	umhos/cm	1		5/1/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: TEP GM 245-1 BWQ
Sample ID: Hayes Gulch UP
Legal Location:
Collection Date: 4/26/2017 11:15

Date: 11-May-17
Work Order: 1704565
Lab ID: 1704565-2
Matrix: WATER

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
TOTAL DISSOLVED SOLIDS			SM2540C		Prep Date: 4/28/2017		PrepBy: HMA
TOTAL DISSOLVED SOLIDS	480		20	MG/L	1		5/1/2017

Client: Western Water and Land, Inc.
Project: TEP GM 245-1 BWQ
Sample ID: Hayes Gulch UP
Legal Location:
Collection Date: 4/26/2017 11:15

Date: 11-May-17
Work Order: 1704565
Lab ID: 1704565-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- 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

ALS -- Fort Collins

Date: 5/11/2017 4:56:

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 1704565

Project: TEP GM 245-1 BWQ

Batch ID: **HC170503-100-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS		Sample ID: HC170503-100		Units: MG/L		Analysis Date: 5/3/2017 15:43					
Client ID:		Run ID: HC170503-8A			Prep Date: 5/3/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.19	0.586	8.14		101	36-150				20	
Surr: O-TERPHENYL	0.789		0.814		97	63-126					

LCSD		Sample ID: HC170503-100		Units: MG/L		Analysis Date: 5/3/2017 16:06					
Client ID:		Run ID: HC170503-8A			Prep Date: 5/3/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.51	0.586	8.14		105	36-150		8.19	4	20	
Surr: O-TERPHENYL	0.788		0.814		97	63-126			0		

MB		Sample ID: HC170503-100		Units: MG/L		Analysis Date: 5/3/2017 12:37					
Client ID:		Run ID: HC170503-8A			Prep Date: 5/3/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.6									
Surr: O-TERPHENYL	0.814		0.84		97	63-126					

The following samples were analyzed in this batch: 1704565-1 1704565-2

Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **IP170504-2-5** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS Sample ID: **IM170504-2** Units: **MG/L** Analysis Date: **5/8/2017 19:32**
 Client ID: Run ID: **IM170508-10A7** Prep Date: **5/4/2017** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BORON	1.01	0.05	1		101	85-115				20	
CALCIUM	10	1	10		100	85-115				20	
IRON	5.02	0.1	5		100	85-115				20	
MAGNESIUM	9.77	0.1	10		98	85-115				20	
MANGANESE	0.102	0.002	0.1		102	85-115				20	
POTASSIUM	5.11	1	5		102	85-115				20	
SELENIUM	0.102	0.001	0.1		102	85-115				20	
SODIUM	10.2	1	10		102	85-115				20	
STRONTIUM	0.098	0.001	0.1		98	85-115				20	

MB Sample ID: **FP170504-2** Units: **MG/L** Analysis Date: **5/8/2017 19:26**
 Client ID: Run ID: **IM170508-10A7** Prep Date: **5/4/2017** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BORON	ND	0.05									
CALCIUM	ND	1									
IRON	0.084	0.1									J
MAGNESIUM	ND	0.1									
MANGANESE	0.002	0.002									J
POTASSIUM	ND	1									
SELENIUM	ND	0.001									
SODIUM	ND	1									
STRONTIUM	ND	0.001									

The following samples were analyzed in this batch:

1704565-1	1704565-2
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Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: VL170428-4-2 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL170428-4			Units: %REC		Analysis Date: 4/28/2017 12:41				
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.3		25		101	85-115					
Surr: DIBROMOFLUOROMETHANE	26		25		104	84-118					
Surr: TOLUENE-D8	24.8		25		99	85-115					
BENZENE	9.85	1	10		99	83-117				20	
TOLUENE	9.13	1	10		91	82-113				20	
ETHYLBENZENE	9.39	1	10		94	81-113				20	
M+P-XYLENE	17.5	1	20		88	82-115				20	
O-XYLENE	8.72	1	10		87	81-115				20	

LCSD		Sample ID: VL170428-4			Units: %REC		Analysis Date: 4/28/2017 13:05				
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.3		25		101	85-115				0	
Surr: DIBROMOFLUOROMETHANE	25.7		25		103	84-118				1	
Surr: TOLUENE-D8	24.6		25		98	85-115				1	
BENZENE	10.1	1	10		101	83-117		9.85	3	20	
TOLUENE	9.22	1	10		92	82-113		9.13	1	20	
ETHYLBENZENE	9.6	1	10		96	81-113		9.39	2	20	
M+P-XYLENE	17.9	1	20		90	82-115		17.5	2	20	
O-XYLENE	9.09	1	10		91	81-115		8.72	4	20	

MB		Sample ID: VL170428-4			Units: %REC		Analysis Date: 4/28/2017 15:03				
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.2		25		101	85-115					
Surr: DIBROMOFLUOROMETHANE	26		25		104	84-118					
Surr: TOLUENE-D8	24.7		25		99	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:

1704565-1 1704565-2

Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: VL170428-4-5 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL170428-8			Units: UG/L			Analysis Date: 4/28/2017 13:52			
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1060	100	1000		106	80-120				20	

LCSD		Sample ID: VL170428-8			Units: UG/L			Analysis Date: 4/28/2017 14:16			
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1130	100	1000		113	80-120		1060	7	20	

MB		Sample ID: VL170428-4			Units: UG/L			Analysis Date: 4/28/2017 15:03			
Client ID:		Run ID: VL170428-4A			Prep Date: 4/28/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	100									

The following samples were analyzed in this batch: 1704565-1 1704565-2

Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **AK170504-1-2** Instrument ID **NONE** Method: **SM2320B**

DUP		Sample ID: 1704565-1		Units: MG/L			Analysis Date: 5/4/2017				
Client ID: Hayes Gulch DWN		Run ID: AK170504-1a1			Prep Date: 5/4/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	269	20						260	4	15	
CARBONATE AS CaCO3	ND	20						20		15	
TOTAL ALKALINITY AS CaCO3	269	20						260	4	15	

LCS		Sample ID: AK170504-1		Units: MG/L			Analysis Date: 5/4/2017				
Client ID:		Run ID: AK170504-1a1			Prep Date: 5/4/2017			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	99.3	5	100		99	85-115				15	

LCSD		Sample ID: AK170504-1		Units: MG/L			Analysis Date: 5/4/2017				
Client ID:		Run ID: AK170504-1a1			Prep Date: 5/4/2017			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	101	5	100		100	85-115		99.3	1	15	

MB		Sample ID: AK170504-1		Units: MG/L			Analysis Date: 5/4/2017				
Client ID:		Run ID: AK170504-1a1			Prep Date: 5/4/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	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: 1704565-1 1704565-2

Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **IC170428-1-2** Instrument ID **IC-2** Method: **EPA300.0**

LCS		Sample ID: IC170428-1			Units: MG/L		Analysis Date: 4/28/2017 14:39				
Client ID:		Run ID: IC170428-1A4			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	5.06	0.2	5		101	90-110				15	
CHLORIDE	5	0.2	5		100	90-110				15	
FLUORIDE	1.99	0.1	2		99	90-110				15	
NITRATE AS N	5.05	0.2	5		101	90-110				15	
NITRITE AS N	1.9	0.1	2		95	90-110				15	
SULFATE	19.6	1	20		98	90-110				15	

MB		Sample ID: IC170428-1			Units: MG/L		Analysis Date: 4/28/2017 14:08				
Client ID:		Run ID: IC170428-1A4			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	ND	0.2									
CHLORIDE	ND	0.2									
FLUORIDE	ND	0.1									
NITRATE AS N	ND	0.2									
NITRITE AS N	ND	0.1									
SULFATE	0.44	1									J

The following samples were analyzed in this batch:

1704565-1	1704565-2
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Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **IC170428-1-2** Instrument ID **IC-2** Method: **EPA300.0**

MS Sample ID: **1704565-1** Units: **MG/L** Analysis Date: **5/1/2017 12:27**
 Client ID: **Hayes Gulch DWN** Run ID: **IC170501-1A4** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	5.04	0.2	5	0.2	101	85-115				15	
CHLORIDE	16	0.2	5	11	91	85-115				15	
FLUORIDE	2.39	0.1	2	0.45	97	85-115				15	
NITRATE AS N	5.2	0.2	5	0.24	99	85-115				15	
NITRITE AS N	1.91	0.1	2	0.1	96	85-115				15	

MSD Sample ID: **1704565-1** Units: **MG/L** Analysis Date: **5/1/2017 13:12**
 Client ID: **Hayes Gulch DWN** Run ID: **IC170501-1A4** Prep Date: **4/28/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	4.85	0.2	5	0.2	97	85-115		5.04	4	15	
CHLORIDE	15.8	0.2	5	11	87	85-115		16	1	15	
FLUORIDE	2.31	0.1	2	0.45	93	85-115		2.39	3	15	
NITRATE AS N	5	0.2	5	0.24	95	85-115		5.2	4	15	
NITRITE AS N	1.83	0.1	2	0.1	91	85-115		1.91	5	15	

The following samples were analyzed in this batch:

1704565-1	1704565-2
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Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **PH170501-1-3** Instrument ID **pH-1** Method: **SM4500-H**

CCV		Sample ID: CCV			Units: pH		Analysis Date: 5/1/2017				
Client ID:		Run ID: PH170501-1a1			Prep Date: 5/1/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.06	0.1	7			6.9-7.1					

DUP		Sample ID: 1704565-1			Units: pH		Analysis Date: 5/1/2017				
Client ID: Hayes Gulch DWN		Run ID: PH170501-1a1			Prep Date: 5/1/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	8.46	0.1						8.54		0.2	

ICV		Sample ID: ICV			Units: pH		Analysis Date: 5/1/2017				
Client ID:		Run ID: PH170501-1a1			Prep Date: 5/1/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7	0.1	7			6.95-7.05					

The following samples were analyzed in this batch:

1704565-1	1704565-2
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Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **SC170501-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: CCV1			Units: umhos/cm			Analysis Date: 5/1/2017			
Client ID:		Run ID: SC170501-1a1			Prep Date: 5/1/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1430	1	1410		101	71.7-1554					

CCV		Sample ID: CCV2			Units: umhos/cm			Analysis Date: 5/1/2017			
Client ID:		Run ID: SC170501-1a1			Prep Date: 5/1/2017			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	71.7-1554					

DUP		Sample ID: 1704565-1			Units: umhos/cm			Analysis Date: 5/1/2017			
Client ID: Hayes Gulch DWN		Run ID: SC170501-1a1			Prep Date: 5/1/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	690	1						687	0	10	

ICV		Sample ID: ICV			Units: umhos/cm			Analysis Date: 5/1/2017			
Client ID:		Run ID: SC170501-1a1			Prep Date: 5/1/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	721	1	718		100	46.2-789.0					

The following samples were analyzed in this batch:

1704565-1	1704565-2
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Client: Western Water and Land, Inc.
 Work Order: 1704565
 Project: TEP GM 245-1 BWQ

QC BATCH REPORT

Batch ID: **TD170428-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS		Sample ID: TD170428-1			Units: MG/L		Analysis Date: 5/1/2017				
Client ID:		Run ID: TD170501-1			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	400	20	400		100	85-115				5	

LCSD		Sample ID: TD170428-1			Units: MG/L		Analysis Date: 5/1/2017				
Client ID:		Run ID: TD170501-1			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	401	20	400		100	85-115		400	0	5	

MB		Sample ID: TD170428-1			Units: MG/L		Analysis Date: 5/1/2017				
Client ID:		Run ID: TD170501-1			Prep Date: 4/28/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch: 1704565-1 1704565-2