1502029

This report consists of one water sample received by ALS on 02/04/15.

GC/MS Volatiles:
The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

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.

GRO:
The sample was analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. The procedures are based on these methods because SW-846 does not have a specific method for TVPH or gasoline range organics. The only true modification from these methods is that TVPH is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. The carbon range integrated in this test extends from C_6 to C_{10}.

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.

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 2 prior to analysis.

All acceptance criteria were met with the following exception:

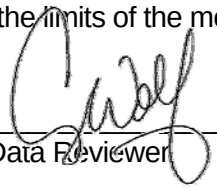
All initial and continuing calibration blanks were below the reporting limit for the requested analytes with the exception of CCB2 for boron. None of the samples associated with this order number were bracketed by this CCB.

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

Analyte	Method	SOP #
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H^+ B	1126
Specific conductance	SM2510B	1128
Total phosphorus	365.2	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.

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.



Final Data Reviewer

2/19/15
Date

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1502029
Client Name: Western Water and Land, Inc.
Client Project Name: GV 86-2 BWQ
Client Project Number:
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Schuette 273609	1502029-1		WATER	03-Feb-15	13:30

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 202r8

WORKORDER # 1502029

PAGE 1 of 1

DISPOSAL: By Lab or Return to Client

PROJECT NAME	GV 862 BWQ	SAMPLER	Nick Solawetz
FACILITY NAME		PROJECT NO.	
FACILITY ID (API)		EDD FORMAT	
COMPANY NAME	Western Water & Land, Inc.	PURCHASE ORDER	
SEND REPORT TO	Bruce Smith	BILL TO COMPANY	WPX Energy
ADDRESS	743 Horizon Court, Suite 330	INVOICE ATTN TO	Mike Shoemaker
CITY / STATE / ZIP	Grand Junction, CO 81506	ADDRESS	1058 CR 215
PHONE	(970) 242-0170	CITY / STATE / ZIP	Parachute, CO 81635
FAX		PHONE	(970) 250-5778
E-MAIL	bsmith@westernwaterandland.com	FAX	
		E-MAIL	mike.shoemaker@wpxenergy.com

DATE: 2-3-15

TURNAROUND: Standard

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	NG1	BART	BTEX/GRO	DRO	Dissolved Metals, lab filtered	Anions, Alk, TDS, pH, SpC	Total Phosphorus	Dissolved gases - HCl preserved	Dissolved gases - unpreserved
(1)	Schuette 273609	GW	2-3-15	1330	16	1.3	IV	1	1	6	3	1	1	1		2

Field Parameters

Schuette 273609	Temp (°C)	9.38	DO (%)	52.1	SpC (uS/cm)	775	Turb (NTUs)	3.54			
	pH (s.u.)	7.33	DO (mg/L)	5.92	ORP (mv)	122.2	Disch (gpm)	5			
	Temp (°C)		DO (%)		SpC (uS/cm)		Turb (NTUs)				
	pH (s.u.)		DO (mg/L)		ORP (mv)		Disch (gpm)				

*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: COGCC Rule 609.

QC PACKAGE (check below)	
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
X	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Shalal Kipp	2-3-15	1415
RECEIVED BY			2.3.15	1415
RELINQUISHED BY			2-3-15	1500
RECEIVED BY		Erin Peterson	2/4/15	1045
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Western Water Workorder No: 1502029

Project Manager: ARW Initials: ECP Date: 2/4/15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2. Are custody seals on shipping containers intact?	NONE	(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?		(YES)	NO
5. Are the COC and bottle labels complete and legible?		(YES)	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	(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	(YES)	NO
10. Is there sufficient sample for the requested analyses?		(YES)	NO
11. Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12. Are all samples within holding times for the requested analyses?		(YES)	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		(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	(YES)	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	N/A	YES	(NO)
16. Were the samples shipped on ice?		(YES)	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4)	RAD ONLY	(YES)	NO

Cooler #:	1						
Temperature (°C):	3.4°						
No. of custody seals on cooler:	1						
DOT Survey Acceptance Information — External µR/hr reading:	13						
Background µR/hr reading:	13						

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (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 / (NA) Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 2/4/15

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

1502029

From: (616) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx

Ship Date: 03FEB15
ActWgt: 50.0 LB
CAD: 2264840/INET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 020315-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (970) 490-1511 BILL RECIPIENT

Sample receiving
ALS Laboratory Group
225 Commerce Drive

FORT COLLINS, CO 80524

WED - 04 FEB AA
STANDARD OVERNIGHT

TRK# 0201 7728 1646 9106

72 FTCA

80524
CO-US
DEN

3, 4

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.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Anion / Cation Summary Report

Lab ID: **1502029-1** QC Type: SMP
Field ID Schuette 273609

Analyte	Final Result	Report Units	mEq
BICARBONATE AS CaCO3	386.5779	MG/L	7.73
CARBONATE AS CaCO3	20	MG/L	0.00
Anion Result Sum	406.58		

Analyte	Final Result	Report Units	mEq
CALCIUM	41.85774	MG/L	2.09
IRON	0.123	MG/L	0.00
MAGNESIUM	41.8998	MG/L	3.45
MANGANESE	0.00776	MG/L	0.00
POTASSIUM	1.17936	MG/L	0.03
SODIUM	61.1257	MG/L	2.66
Cation Result Sum	146.19		

Total Result:	**552.77**	MG/L	
TDS Result:			
RPD:			

Anion mEq Sum:	**8.60**
Cation mEq Sum:	**8.22**
RPD:	4.48%

Below is a list of Lab IDs for this Order Number that were logged in for metals analyses. Note: if this area is empty then either no metals analyses were requested or the cations of interest were not requested.

1502029-1

ALS Environmental -- FC

Date: 19-Feb-15

Client: Western Water and Land, Inc.
Project: GV 86-2 BWQ
Work Order: **1502029**

Field Parameter Report

Client Sample ID	Matrix
Schuette 273609	WATER

Field Parameter:	Value:	Units:
Turbidity	3.54	NTU
Temperature	9.38	C
Specific Conductance	775	uS/cm
pH	7.33	
Oxidation Reduction Potential	122.2	mv
Dissolved Oxygen	5.92	mg/l
Dissolved Oxygen Saturation	52.1	%
Discharge	5	gpm

Client: Western Water and Land, Inc. **Date:** *18-Feb-15*
Project: GV 86-2 BWQ **Work Order:** 1502029
Sample ID: Schuette 273609 **Lab ID:** 1502029-1
Legal Location: **Matrix:** WATER
Collection Date: 2/3/2015 13:30 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			**SM2320B**		Prep Date: **2/10/2015**		PrepBy: **JAC**
BICARBONATE AS CaCO3	**390**		**20**	**MG/L**	1		2/10/2015
CARBONATE AS CaCO3	ND		20	MG/L	1		2/10/2015
TOTAL ALKALINITY AS CaCO3	**390**		**20**	**MG/L**	1		2/10/2015
BIOLOGICAL ACTIVITY REACTION TEST			**BART**		Prep Date: **2/10/2015**		PrepBy: **CDR**
IRON RELATED BACTERIA	**9000**		**1**	**cfu/ml**	1		2/18/2015
SLIME FORMING BACTERIA	**350000**		**1**	**cfu/ml**	1		2/18/2015
SULFATE REDUCING BACTERIA	**18000**		**1**	**cfu/ml**	1		2/18/2015
DIESEL RANGE ORGANICS			**SW8015M**		Prep Date: **2/9/2015**		PrepBy: **JFN**
Diesel Range Organics	ND		0.48	MG/L	1	0.15	2/9/2015 18:47
Surr: O-TERPHENYL	*106*		*54-123*	*%REC*	1		2/9/2015 18:47
DISSOLVED GASSES			**RSK175**		Prep Date: **2/10/2015**		PrepBy: **JFN**
METHANE	ND		1	UG/L	1	1	2/10/2015 14:59
ETHANE	ND		2	UG/L	1	2	2/10/2015 14:59
PROPANE	ND		1	UG/L	1	1	2/10/2015 14:59
GASOLINE RANGE ORGANICS			**SW8015**		Prep Date: **2/5/2015**		PrepBy: **JFN**
GASOLINE RANGE ORGANICS	ND		0.5	MG/L	1	0.05	2/5/2015 12:11
Surr: 2,3,4-TRIFLUOROTOLUENE	*89*		*74-129*	*%REC*	1		2/5/2015 12:11
GC/MS VOLATILES			**SW8260_25**		Prep Date: **2/4/2015**		PrepBy: **SDW**
BENZENE	ND		1	UG/L	1	0.3	2/4/2015 18:36
TOLUENE	ND		1	UG/L	1	0.3	2/4/2015 18:36
ETHYLBENZENE	ND		1	UG/L	1	0.3	2/4/2015 18:36
M+P-XYLENE	ND		1	UG/L	1	0.3	2/4/2015 18:36
O-XYLENE	ND		1	UG/L	1	0.3	2/4/2015 18:36
TOTAL XYLENES	ND		1	UG/L	1		2/4/2015 18:36
Surr: 4-BROMOFLUOROBENZENE	*97*		*85-115*	*%REC*	1		2/4/2015 18:36
Surr: DIBROMOFLUOROMETHANE	*93*		*84-118*	*%REC*	1		2/4/2015 18:36
Surr: TOLUENE-D8	*105*		*85-115*	*%REC*	1		2/4/2015 18:36
ION CHROMATOGRAPHY			**EPA300.0**		Prep Date: **2/4/2015**		PrepBy: **AJD**
BROMIDE	**0.08**	J	**0.2**	**MG/L**	1	0.06	2/4/2015 18:18
CHLORIDE	ND		0.2	MG/L	1	0.062	2/4/2015 18:18
FLUORIDE	**0.19**		**0.1**	**MG/L**	1	0.03	2/4/2015 18:18
NITRATE/NITRITE AS N	**1.8**		**0.1**	**MG/L**	1		2/4/2015 18:18
NITRATE AS N	**1.8**		**0.2**	**MG/L**	1	0.06	2/4/2015 18:18
NITRITE AS N	ND		0.1	MG/L	1	0.03	2/4/2015 18:18
SULFATE	**36**		**1**	**MG/L**	1	0.3	2/4/2015 18:18
METALS BY 200.8			**EPA200.8**		Prep Date: **2/12/2015**		PrepBy: **CDR**
BARIUM	**0.14**		**0.001**	**MG/L**	10	0.00035	2/13/2015 19:39
BORON	**0.12**		**0.05**	**MG/L**	10	0.008	2/13/2015 19:39
CALCIUM	**42**		**1**	**MG/L**	10	0.076	2/13/2015 19:39
IRON	ND		0.1	MG/L	10	0.012	2/13/2015 19:39

Client: Western Water and Land, Inc. **Date:** *18-Feb-15*
Project: GV 86-2 BWQ **Work Order:** 1502029
Sample ID: Schuette 273609 **Lab ID:** 1502029-1
Legal Location: **Matrix:** WATER
Collection Date: 2/3/2015 13:30 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
MAGNESIUM	**42**		**0.1**	**MG/L**	10	0.035	2/13/2015 19:39
MANGANESE	**0.0078**		**0.002**	**MG/L**	10	0.00052	2/13/2015 19:39
POTASSIUM	**1.2**		**1**	**MG/L**	10	0.15	2/13/2015 19:39
SELENIUM	**0.0017**		**0.001**	**MG/L**	10	0.00068	2/13/2015 19:39
SODIUM	**61**		**1**	**MG/L**	10	0.13	2/13/2015 19:39
STRONTIUM	**0.78**		**0.001**	**MG/L**	10	0.00036	2/13/2015 19:39
PH			**SM4500-H**		Prep Date: **2/5/2015**		PrepBy: **JAC**
PH	**7.7**		**0.1**	**pH**	1		2/5/2015
SPECIFIC CONDUCTANCE IN WATER			**SM2510B**		Prep Date: **2/5/2015**		PrepBy: **JAC**
SPECIFIC CONDUCTIVITY	**739**		**1**	**umhos/cm**	1		2/5/2015
TOTAL DISSOLVED SOLIDS			**SM2540C**		Prep Date: **2/6/2015**		PrepBy: **JAC**
TOTAL DISSOLVED SOLIDS	**460**		**20**	**MG/L**	1		2/7/2015
TOTAL PHOSPHORUS AS P			**EPA365.2**		Prep Date: **2/10/2015**		PrepBy: **AJD**
TOTAL PHOSPHORUS	**0.021**	J	**0.05**	**MG/L**	1	0.015	2/10/2015

Client:	Western Water and Land, Inc.	**Date:**	*18-Feb-15*
Project:	GV 86-2 BWQ	**Work Order:**	1502029
Sample ID:	Schuette 273609	**Lab ID:**	1502029-1
Legal Location:		**Matrix:**	WATER
Collection Date:	2/3/2015 13:30	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed

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

Batch ID: **HC150205-6-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS Sample ID: **HC150205-6** Units: **MG/L** Analysis Date: **2/5/2015 10:22**

Client ID: Run ID: **HC150205-6A** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.38	0.5	2.5		95	79-118			20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.5		0.5		100	74-129				

LCSD Sample ID: **HC150205-6** Units: **MG/L** Analysis Date: **2/5/2015 14:42**

Client ID: Run ID: **HC150205-6A** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.53	0.5	2.5		101	79-118	2.38	6	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.511		0.5		102	74-129		2		

MB Sample ID: **HC150205-6** Units: **MG/L** Analysis Date: **2/5/2015 10:43**

Client ID: Run ID: **HC150205-6A** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5								
Surr: 2,3,4-TRIFLUOROTOLUENE	0.479		0.5		96	74-129				

The following samples were analyzed in this batch: 1502029-1

Batch ID: **EX150209-99-1** Instrument ID **FUELS-1** Method: **SW8015M**

DUP Sample ID: **1502029-1** Units: **MG/L** Analysis Date: **2/9/2015 19:24**

Client ID: **Schuette 273609** Run ID: **HC150209-8A** Prep Date: **2/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.481					0.48			
Surr: O-TERPHENYL	0.707		0.668		106	54-123				

LCS Sample ID: **EX150209-99** Units: **MG/L** Analysis Date: **2/9/2015 20:37**

Client ID: Run ID: **HC150209-8A** Prep Date: **2/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	8.09	0.488	6.78		119	36-150			20	
Surr: O-TERPHENYL	0.77		0.678		114	54-123				

MB Sample ID: **EX150209-99** Units: **MG/L** Analysis Date: **2/9/2015 17:36**

Client ID: Run ID: **HC150209-8A** Prep Date: **2/9/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.49								
Surr: O-TERPHENYL	0.768		0.674		114	54-123				

The following samples were analyzed in this batch: 1502029-1

Batch ID: **HC150210-9-1** Instrument ID **MEE-1** Method: **RSK175**

LCS Sample ID: **HC150210-9** Units: **UG/L** Analysis Date: **2/10/2015 14:40**

Client ID: Run ID: **HC150210-9A** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
METHANE	119	1	142		83	80-120			25	
ETHANE	234	2	267		88	80-120			25	
PROPANE	332	1	391		85	80-120			25	

LCSD Sample ID: **HC150210-9** Units: **UG/L** Analysis Date: **2/10/2015 15:26**

Client ID: Run ID: **HC150210-9A** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
METHANE	119	1	142		84	80-120	119	1	25	
ETHANE	236	2	267		88	80-120	234	1	25	
PROPANE	339	1	391		87	80-120	332	2	25	

MB Sample ID: **HC150210-9** Units: **UG/L** Analysis Date: **2/10/2015 14:45**

Client ID: Run ID: **HC150210-9A** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
METHANE	ND	1								
ETHANE	ND	2								
PROPANE	ND	1								

MS Sample ID: **1502029-1** Units: **UG/L** Analysis Date: **2/10/2015 15:02**

Client ID: **Schuette 273609** Run ID: **HC150210-9A** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
METHANE	54.9	1	71.1	1	77	70-130			25	
ETHANE	108	2	133	2	81	70-130			25	
PROPANE	151	1	196	1	77	70-130			25	

The following samples were analyzed in this batch: 1502029-1

QC BATCH REPORT

Batch ID: **IP150212-1-5** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS Sample ID: **FM150212-1** Units: **MG/L** Analysis Date: **2/13/2015 18:34**

Client ID: Run ID: **IM150213-12A4** Prep Date: **2/12/2015** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BARIUM	0.108	0.001	0.1		108	85-115			20	
BORON	1.03	0.05	1		103	85-115			20	
CALCIUM	9.51	1	10		95	85-115			20	
IRON	5.22	0.1	5		104	85-115			20	
MAGNESIUM	10.3	0.1	10		103	85-115			20	
MANGANESE	0.103	0.002	0.1		103	85-115			20	
POTASSIUM	4.58	1	5		92	85-115			20	
SELENIUM	0.11	0.001	0.1		110	85-115			20	
SODIUM	9.73	1	10		97	85-115			20	
STRONTIUM	0.104	0.001	0.1		104	85-115			20	

MB Sample ID: **FP150212-1** Units: **MG/L** Analysis Date: **2/13/2015 20:20**

Client ID: Run ID: **IM150213-12A4** Prep Date: **2/12/2015** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BARIUM	ND	0.001								
BORON	0.011	0.05								J
CALCIUM	ND	1								
IRON	ND	0.1								
MAGNESIUM	ND	0.1								
MANGANESE	ND	0.002								
POTASSIUM	ND	1								
SELENIUM	ND	0.001								
SODIUM	ND	1								
STRONTIUM	ND	0.001								

The following samples were analyzed in this batch: 1502029-1

Batch ID: **VL150204-4-1** Instrument ID **HPV1** Method: **SW8260_25**

LCS Sample ID: **VL150204-4** Units: **%REC** Analysis Date: **2/4/2015 12:32**

Client ID: Run ID: **VL150204-4A** Prep Date: **2/4/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.8		25		99	85-115				
Surr: DIBROMOFLUOROMETHANE	23.1		25		93	84-118				
Surr: TOLUENE-D8	25.8		25		103	85-115				
BENZENE	8.96	1	10		90	83-117			20	
TOLUENE	9.21	1	10		92	82-113			20	
ETHYLBENZENE	9.4	1	10		94	81-113			20	
M+P-XYLENE	18.7	1	20		94	82-115			20	
O-XYLENE	9.17	1	10		92	81-115			20	

LCSD Sample ID: **VL150204-4** Units: **%REC** Analysis Date: **2/4/2015 12:55**

Client ID: Run ID: **VL150204-4A** Prep Date: **2/4/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.3		25		101	85-115		2		
Surr: DIBROMOFLUOROMETHANE	23.9		25		95	84-118		3		
Surr: TOLUENE-D8	26.2		25		105	85-115		1		
BENZENE	8.89	1	10		89	83-117	8.96	1	20	
TOLUENE	8.99	1	10		90	82-113	9.21	2	20	
ETHYLBENZENE	9.1	1	10		91	81-113	9.4	3	20	
M+P-XYLENE	18.1	1	20		91	82-115	18.7	3	20	
O-XYLENE	9.15	1	10		92	81-115	9.17	0	20	

MB Sample ID: **VL150204-4** Units: **%REC** Analysis Date: **2/4/2015 14:05**

Client ID: Run ID: **VL150204-4A** Prep Date: **2/4/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.1		25		96	85-115				
Surr: DIBROMOFLUOROMETHANE	23.3		25		93	84-118				
Surr: TOLUENE-D8	26.5		25		106	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:	1502029-1

Batch ID: **AK150210-1-1** Instrument ID **Balance** Method: **SM2320B**

LCS Sample ID: **AK150210-1** Units: **MG/L** Analysis Date: **2/10/2015**

Client ID: Run ID: **AK150210-1A1** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	99.4	5	100		99	85-115			15	

MB Sample ID: **AK150210-1** Units: **MG/L** Analysis Date: **2/10/2015**

Client ID: Run ID: **AK150210-1A1** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	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: 1502029-1

QC BATCH REPORT

Batch ID: **IC150204-1-1** Instrument ID **IC** Method: **EPA300.0**

LCS Sample ID: **IC150204-1** Units: **MG/L** Analysis Date: **2/4/2015 16:40**

Client ID: Run ID: **IC150204-1A2** Prep Date: **2/4/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BROMIDE	5.14	0.2	5		103	90-110			15	
CHLORIDE	5.02	0.2	5		100	90-110			15	
FLUORIDE	1.91	0.1	2		96	90-110			15	
NITRATE AS N	5.08	0.2	5		102	90-110			15	
NITRITE AS N	1.98	0.1	2		99	90-110			15	
SULFATE	20.1	1	20		101	90-110			15	

MB Sample ID: **IC150204-1** Units: **MG/L** Analysis Date: **2/4/2015 16:54**

Client ID: Run ID: **IC150204-1A2** Prep Date: **2/4/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	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	ND	1								

The following samples were analyzed in this batch: 1502029-1

QC BATCH REPORT

Batch ID: **PH150205-1-1** Instrument ID **pH-1** Method: **SM4500-H**

CCV Sample ID: **CCV1** Units: **pH** Analysis Date: **2/5/2015**
Client ID: Run ID: **PH150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
PH	7.01	0.1	7			6.9-7.1				

DUP Sample ID: **1502029-1** Units: **pH** Analysis Date: **2/5/2015**
Client ID: **Schuette 273609** Run ID: **PH150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
PH	7.72	0.1					7.7		0.2	

ICV Sample ID: **ICV** Units: **pH** Analysis Date: **2/5/2015**
Client ID: Run ID: **PH150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
PH	7.01	0.1	7			6.95-7.05				

The following samples were analyzed in this batch: 1502029-1

QC BATCH REPORT

Batch ID: **SC150205-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV Sample ID: **CCV1** Units: **umhos/cm** Analysis Date: **2/5/2015**
Client ID: Run ID: **SC150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1400	1	1410		99	271.7-1554.				

DUP Sample ID: **1502029-1** Units: **umhos/cm** Analysis Date: **2/5/2015**
Client ID: **Schuette 273609** Run ID: **SC150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	737	1					739	0	10	

ICV Sample ID: **ICV** Units: **umhos/cm** Analysis Date: **2/5/2015**
Client ID: Run ID: **SC150205-1A1** Prep Date: **2/5/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	708	1	718		99	646.2-789.7				

The following samples were analyzed in this batch: 1502029-1

QC BATCH REPORT

Batch ID: **TD150206-1-1** Instrument ID **Balance** Method: **SM2540C**

DUP Sample ID: **1502029-1** Units: **MG/L** Analysis Date: **2/7/2015**
Client ID: **Schuette 273609** Run ID: **TD150207-1A1** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	457	20					460	0	5	

LCS Sample ID: **TD150206-1** Units: **MG/L** Analysis Date: **2/7/2015**
Client ID: Run ID: **TD150207-1A1** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	412	20	400		103	85-115			5	

MB Sample ID: **TD150206-1** Units: **MG/L** Analysis Date: **2/7/2015**
Client ID: Run ID: **TD150207-1A1** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20								

The following samples were analyzed in this batch: 1502029-1

QC BATCH REPORT

Batch ID: **TP150210-1-1** Instrument ID **Spec** Method: **EPA365.2**

LCS Sample ID: **TP150210-1** Units: **MG/L** Analysis Date: **2/10/2015**
Client ID: Run ID: **TP150210-1A2** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.5	0.05	0.5		100	80-120			20	

MB Sample ID: **TP150210-1** Units: **MG/L** Analysis Date: **2/10/2015**
Client ID: Run ID: **TP150210-1A2** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	ND	0.05								

The following samples were analyzed in this batch: 1502029-1