TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
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TestAmerica Job ID: 280-83564-1
Client Project/Site: COGCC - Jim Hughes

For:
Colorado Oil&Gas Conservation Commision
421 San Moritz Drive
Bayfield, Colorado 81122

Attn: Mr. Jim Hughes

Authorized for release by:
6/9/2016 10:36:42 PM

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Definitions/Glossary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Colorado Oil&Gas Conservation Commission

Project: COGCC - Jim Hughes

Report Number: 280-83564-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 5/24/2016 at 8:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8º C.

There were some discrepancies noted on the COC. Please note that we only logged total phosphorus for the water sample as phosphorus is not applicable for the soils. We logged the 8270 SIM PAH list for the soil samples per table 910. We logged the generic list 8270 per what we have done for Bob Chesson for the water 8270s since there was no 8270 list included for waters on table 910. The client was notified and asked to confirm if the full list 8270 was what they needed for the waters or if they only needed the PAH compounds on 5/25/16. As no response was received the full list was logged for the waters.

We did log trivalent chromium and hexavalent chromium per table 910 for the soils. However, these tests were not listed on the COC. The client was notified on 5/25/16.

For metals please note that Calcium, Magnesium and Sodium were also logged for samples required SAR as they are needed to calculate the SAR result. The client was notified on 5/25/16.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/03/2016 and 06/06/2016.

The recoveries for surrogates 4-Bromofluorobenzene, Dibromofluoromethane and Toluene-d8 were outside the surrogate recovery criteria low for sample 0523161205 (280-83564-3) due to matrix interferences. The sample was re-analyzed showing similar results. The data has been qualified and reported.

Toluene failed the recovery criteria high for LCS 280-328626/2-A. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. Report with NCM.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample 0523161135 (280-83564-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/01/2016.

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Laboratory: TestAmerica Denver (Continued)

The sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, when verified by the laboratory, the pH was greater than 2 and the following sample (measured to be ~7) was analyzed after 7 days from sampling: 0523161135 (280-83564-1).

The recoveries for surrogates Dibromofluoromethane (127%, limits 77-120%) and 1,2-dichloroethane-d4 (133%, limits 70-127%) were outside the upper control limit for sample 0523161135 (280-83564-1). This sample did not contain any target analytes associated with these surrogates; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample 0523161135 (280-83564-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/25/2016 and analyzed on 06/01/2016.

The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for prep batch 327008 analytical batch 327981 recovered outside control limits for the following analytes: Hexachlorocyclopentadiene, Benzidine. Hexachlorocyclopentadiene and Benzidine have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified. Please note that Benzidine and Hexachlorocyclopentadiene are not controlled spike analytes for the client; however, since the compound is on the client's target analyte list, the data has been flagged and narrated for disclosure purposes only. The analyte 1,2,4-Trichlorobenzene was also outside the recovery criteria in the LCS. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for Semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA SW-846 Method 8270C SIM. The samples were prepared on 06/02/2016 and analyzed on 06/07/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GASOLINE RANGE ORGANICS (GRO)
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/06/2016.

Recoveries for surrogate a,a,a-Trifluorotoluene was outside control limits in sample 0523161205 (280-83564-3). Re-extraction was performed with concurring results. The second set of analysis has been reported.

The MS spike recovery for Gasoline Range Organics (GRO)-C6-C10 was outside the recovery criteria low in batch 280-328544, performed on sample 0523161155 (280-83564-2). The recovery or surrogate a,a,a-trifluorotoluene was also outside control limits. The associated LCS was in control and provides evidence that operating procedures were in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GAS RANGE ORGANICS
Sample 0523161135 (280-83564-1) was analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/27/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES
Sample 0523161135 (280-83564-1) was analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 05/31/2016.

Ethane eluted outside the retention time window on the front column for the following sample: 0523161135 (280-83564-1). This retention

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Laboratory: TestAmerica Denver (Continued)

time shift is the result of matrix interference. Ethane is qualitatively confirmed on the rear column. However, since the rear column does not provide ethane quantitation due to coelution with acetylene, data has been reported from the front column.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for diesel range organics in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/25/2016 and analyzed on 06/03/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS
Sample 0523161135 (280-83564-1) was analyzed for Diesel Range Organics in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/29/2016 and analyzed on 06/03/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SODIUM ABSORPTION RATIO
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for Sodium Absorption Ratio in accordance with USDA Handbook 60 - 20B. The samples were prepared on 05/25/2016 and analyzed on 06/01/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 05/26/2016 and analyzed on 05/31/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS
Sample 0523161135 (280-83564-1) was analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 05/26/2016 and analyzed on 05/28/2016.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 05/31/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Sample 0523161135 (280-83564-1) was analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/26/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY
Sample 0523161135 (280-83564-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 05/25/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Sample 0523161135 (280-83564-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed

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Laboratory: TestAmerica Denver (Continued)

on 05/26/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Sample 0523161135 (280-83564-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 05/24/2016.

Sample 0523161135 (280-83564-1) required a 2X dilution prior to analysis due to the Matrix Conductivity Threshold (MCT) of the instrument. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL PHOSPHORUS
Sample 0523161135 (280-83564-1) was analyzed for total phosphorus in accordance with EPA Method 365.1. The samples were prepared and analyzed on 05/26/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 3060A/7196A. The samples were prepared and analyzed on 06/01/2016.

Sample 0523161155 (280-83564-2) required a 10X dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for pH in accordance with EPA SW-846 Method 9045C. The samples were leached on 05/25/2016 and analyzed on 05/25/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTANCE
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for specific conductance in accordance with EPA SW-846 9050A. The samples were leached on 06/03/2016 and analyzed on 06/03/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for percent solids in accordance with ASTM D2216-90. The samples were analyzed on 05/26/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM
Samples 0523161155 (280-83564-2) and 0523161205 (280-83564-3) were analyzed for trivalent Chromium in accordance with SW-846 7196A_CR3. The samples were analyzed on 06/03/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)
Sample 0523161135 (280-83564-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 05/24/2016.

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Laboratory: TestAmerica Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Client Sample ID: 0523161135 — Lab Sample ID: 280-83564-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methane	6800		5.0		ug/L	1		RSK-175	Total/NA
Ethane	18		5.0		ug/L	1		RSK-175	Total/NA
Barium	490		10		ug/L	1		6010B	Total/NA
Calcium	3700		200		ug/L	1		6010B	Total/NA
Iron	3000		100		ug/L	1		6010B	Total/NA
Magnesium	2000		200		ug/L	1		6010B	Total/NA
Manganese	20		10		ug/L	1		6010B	Total/NA
Potassium	7100		3000		ug/L	1		6010B	Total/NA
Sodium	1400000		1000		ug/L	1		6010B	Total/NA
Strontium	440		10		ug/L	1		6010B	Total/NA
Bromide	0.74		0.40		mg/L	2		300.0	Total/NA
Chloride	280		6.0		mg/L	2		300.0	Total/NA
Fluoride	1.7		1.0		mg/L	2		300.0	Total/NA
Total Alkalinity	2800		5.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	2800		5.0		mg/L	1		SM 2320B	Total/NA
Specific Conductance	4500		2.0		umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	3200		40		mg/L	1		SM 2540C	Total/NA
pH	8.10	HF	0.100		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: 0523161155 — Lab Sample ID: 280-83564-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chrysene	7.5		5.1		ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	9.2		5.1		ug/Kg	1	☼	8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	28		4.3		mg/Kg	1	☼	8015B	Total/NA
Arsenic	3.8		1.7		mg/Kg	1	☼	6010B	Total/NA
Calcium	7900		43		mg/Kg	1	☼	6010B	Total/NA
Barium	180		0.85		mg/Kg	1	☼	6010B	Total/NA
Magnesium	4200		17		mg/Kg	1	☼	6010B	Total/NA
Chromium	14		1.3		mg/Kg	1	☼	6010B	Total/NA
Copper	16		1.7		mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.77		mg/Kg	1	☼	6010B	Total/NA
Nickel	11		3.4		mg/Kg	1	☼	6010B	Total/NA
Zinc	43		2.6		mg/Kg	1	☼	6010B	Total/NA
Cr (III)	14		2.0		mg/Kg	1		SM3500 CR B	Total/NA
pH adj. to 25 deg C	8.26		0.100		SU	1		9045C	Soluble
Specific Conductance	410		20		umhos/cm	1		9050A	Soluble

Client Sample ID: 0523161205 — Lab Sample ID: 280-83564-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	5.9		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	9.6		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	5.7		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	31		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	7.7		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	10		4.6		mg/Kg	1	☼	8015B	Total/NA
Sodium Adsorption Ratio	26		1.2		No Unit	10		20B	Soluble
Arsenic	4.5		2.0		mg/Kg	1	☼	6010B	Total/NA
Calcium	6100		50		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Client Sample ID: 0523161205 (Continued)

Lab Sample ID: 280-83564-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Barium	210		1.0		mg/Kg	1	☼	6010B	Total/NA
Magnesium	3800		20		mg/Kg	1	☼	6010B	Total/NA
Sodium	2500		500		mg/Kg	1	☼	6010B	Total/NA
Chromium	13		1.5		mg/Kg	1	☼	6010B	Total/NA
Copper	15		2.0		mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.90		mg/Kg	1	☼	6010B	Total/NA
Nickel	11		4.0		mg/Kg	1	☼	6010B	Total/NA
Zinc	40		3.0		mg/Kg	1	☼	6010B	Total/NA
Cr (VI)	1.1		0.94		mg/Kg	1	☼	7196A	Total/NA
Cr (III)	12		2.0		mg/Kg	1		SM3500 CR B	Total/NA
pH adj. to 25 deg C	7.93		0.100		SU	1		9045C	Soluble
Specific Conductance	3300		20		umhos/cm	1		9050A	Soluble

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
RSK-175	Dissolved Gases in Water	RSK	TAL DEN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL DEN
20B	Sodium Adsorption Ratio	USDA	TAL DEN
6010B	Metals (ICP)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
365.1	Phosphorus, Total	EPA	TAL DEN
7196A	Chromium, Hexavalent	SW846	TAL CAN
9045C	pH	SW846	TAL DEN
9050A	Specific Conductance	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USDA = "USDA Agriculture Handbook 60, section 20B".

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-83564-1	0523161135	Water	05/23/16 11:35	05/24/16 08:55
280-83564-2	0523161155	Solid	05/23/16 11:55	05/24/16 08:55
280-83564-3	0523161205	Solid	05/23/16 12:05	05/24/16 08:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/01/16 14:30	1
Ethylbenzene	ND		1.0		ug/L			06/01/16 14:30	1
m-Xylene & p-Xylene	ND		2.0		ug/L			06/01/16 14:30	1
o-Xylene	ND		1.0		ug/L			06/01/16 14:30	1
Toluene	ND		1.0		ug/L			06/01/16 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*78 - 120*		*06/01/16 14:30*	*1*
Dibromofluoromethane (Surr)	*127*	*X*	*77 - 120*		*06/01/16 14:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*133*	*X*	*70 - 127*		*06/01/16 14:30*	*1*
Toluene-d8 (Surr)	*105*		*80 - 125*		*06/01/16 14:30*	*1*

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.1		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1
Ethylbenzene	ND		5.1		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1
Toluene	ND		5.1		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1
m-Xylene & p-Xylene	ND		2.6		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1
o-Xylene	ND		2.6		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1
Xylenes, Total	ND		5.1		ug/Kg	☼	06/03/16 17:00	06/03/16 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*58 - 140*	*06/03/16 17:00*	*06/03/16 20:31*	*1*
Toluene-d8 (Surr)	*102*		*80 - 126*	*06/03/16 17:00*	*06/03/16 20:31*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 127*	*06/03/16 17:00*	*06/03/16 20:31*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 121*	*06/03/16 17:00*	*06/03/16 20:31*	*1*

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.8		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1
Ethylbenzene	ND		5.8		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1
Toluene	ND	*	5.8		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1
m-Xylene & p-Xylene	ND		2.9		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1
o-Xylene	ND		2.9		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1
Xylenes, Total	ND		5.8		ug/Kg	☼	06/06/16 18:00	06/06/16 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*58 - 140*	*06/06/16 18:00*	*06/06/16 22:30*	*1*
Toluene-d8 (Surr)	*72*	*X*	*80 - 126*	*06/06/16 18:00*	*06/06/16 22:30*	*1*
4-Bromofluorobenzene (Surr)	*72*	*X*	*76 - 127*	*06/06/16 18:00*	*06/06/16 22:30*	*1*
Dibromofluoromethane (Surr)	*72*	*X*	*75 - 121*	*06/06/16 18:00*	*06/06/16 22:30*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Anthracene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Benzo[a]anthracene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Benzo[a]pyrene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Benzo[b]fluoranthene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Benzo[k]fluoranthene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Chrysene	**7.5**		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Dibenz(a,h)anthracene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Fluoranthene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Fluorene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Indeno[1,2,3-cd]pyrene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Naphthalene	**9.2**		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1
Pyrene	ND		5.1		ug/Kg	☼	06/02/16 14:40	06/07/16 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*39 - 120*	*06/02/16 14:40*	*06/07/16 18:36*	*1*
Nitrobenzene-d5	*72*		*42 - 120*	*06/02/16 14:40*	*06/07/16 18:36*	*1*
Terphenyl-d14	*78*		*35 - 124*	*06/02/16 14:40*	*06/07/16 18:36*	*1*

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Anthracene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Benzo[a]anthracene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Benzo[a]pyrene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Benzo[b]fluoranthene	**5.9**		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Benzo[k]fluoranthene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Chrysene	**9.6**		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Dibenz(a,h)anthracene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Fluoranthene	**5.7**		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Fluorene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Indeno[1,2,3-cd]pyrene	ND		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Naphthalene	**31**		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1
Pyrene	**7.7**		5.7		ug/Kg	☼	06/02/16 14:40	06/07/16 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*39 - 120*	*06/02/16 14:40*	*06/07/16 19:55*	*1*
Nitrobenzene-d5	*94*		*42 - 120*	*06/02/16 14:40*	*06/07/16 19:55*	*1*
Terphenyl-d14	*73*		*35 - 124*	*06/02/16 14:40*	*06/07/16 19:55*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Acenaphthylene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Anthracene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Atrazine	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzidine	ND	*	110		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzo[a]anthracene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzo[a]pyrene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzo[b]fluoranthene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzo[g,h,i]perylene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Benzo[k]fluoranthene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Bis(2-chloroethoxy)methane	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Bis(2-chloroethyl)ether	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Bis(2-ethylhexyl) phthalate	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Bromophenyl phenyl ether	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Butyl benzyl phthalate	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Caprolactam	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Carbazole	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Chloroaniline	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Chloro-3-methylphenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Chloronaphthalene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Chlorophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Chlorophenyl phenyl ether	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Chrysene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Cresols, Total	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Dibenz(a,h)anthracene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Dibenzofuran	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
1,4-Dichlorobenzene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
3,3'-Dichlorobenzidine	ND		53		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4-Dichlorophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Diethyl phthalate	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4-Dimethylphenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Dimethyl phthalate	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Di-n-butyl phthalate	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
4,6-Dinitro-2-methylphenol	ND		53		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4-Dinitrophenol	ND		32		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4-Dinitrotoluene	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,6-Dinitrotoluene	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Di-n-octyl phthalate	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Fluoranthene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Fluorene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Hexachlorobenzene	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Hexachlorobutadiene	ND	*	11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Hexachlorocyclopentadiene	ND	*	53		ug/L		05/25/16 17:15	06/01/16 20:42	1
Hexachloroethane	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Indeno[1,2,3-cd]pyrene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Methylnaphthalene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Methylphenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
3 & 4 Methylphenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Naphthalene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Nitroaniline	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Nitroaniline	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Nitrobenzene	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
2-Nitrophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
4-Nitrophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
N-Nitrosodi-n-propylamine	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,2'-oxybis[1-chloropropane]	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Pentachlorophenol	ND		53		ug/L		05/25/16 17:15	06/01/16 20:42	1
Phenanthrene	ND		4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
Phenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
Pyrene	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
1,2,4-Trichlorobenzene	ND	*	4.2		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4,5-Trichlorophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1
2,4,6-Trichlorophenol	ND		11		ug/L		05/25/16 17:15	06/01/16 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*72*		*48 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*
2-Fluorobiphenyl	*79*		*48 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*
2-Fluorophenol	*86*		*41 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*
Nitrobenzene-d5	*81*		*42 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*
Phenol-d5	*89*		*46 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*
Terphenyl-d14	*89*		*20 - 135*	*05/25/16 17:15*	*06/01/16 20:42*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		25		ug/L			05/27/16 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*82 - 110*		*05/27/16 17:49*	*1*

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND	F1	1.2		mg/Kg		06/06/16 10:14	06/06/16 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*77 - 123*	*06/06/16 10:14*	*06/06/16 13:11*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		1.2		mg/Kg		06/06/16 10:14	06/06/16 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*75*	*X*	*77 - 123*	*06/06/16 10:14*	*06/06/16 14:27*	*1*

Method: RSK-175 - Dissolved Gases in Water

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methane	**6800**		5.0		ug/L			05/31/16 22:48	1
Ethane	**18**		5.0		ug/L			05/31/16 22:48	1
Propane	ND		5.0		ug/L			05/31/16 22:48	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.26		mg/L		05/29/16 12:16	06/03/16 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*112*		*50 - 115*	*05/29/16 12:16*	*06/03/16 21:29*	*1*

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**28**		4.3		mg/Kg	☼	05/25/16 20:00	06/03/16 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*104*		*49 - 115*	*05/25/16 20:00*	*06/03/16 17:22*	*1*

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**10**		4.6		mg/Kg	☼	05/25/16 20:00	06/03/16 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*49 - 115*	*05/25/16 20:00*	*06/03/16 17:47*	*1*

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	ND		1.2		No Unit		05/25/16 17:29	06/01/16 14:30	10

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	**26**		1.2		No Unit		05/25/16 17:29	06/01/16 14:33	10

Method: 6010B - Metals (ICP)

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	**490**		10		ug/L		05/26/16 14:45	05/28/16 03:39	1
Beryllium	ND		1.0		ug/L		05/26/16 14:45	05/28/16 03:39	1
Calcium	**3700**		200		ug/L		05/26/16 14:45	05/28/16 03:39	1
Iron	**3000**		100		ug/L		05/26/16 14:45	05/28/16 03:39	1
Magnesium	**2000**		200		ug/L		05/26/16 14:45	05/28/16 03:39	1
Manganese	**20**		10		ug/L		05/26/16 14:45	05/28/16 03:39	1
Potassium	**7100**		3000		ug/L		05/26/16 14:45	05/28/16 03:39	1
Selenium	ND		15		ug/L		05/26/16 14:45	05/28/16 03:39	1
Sodium	**1400000**		1000		ug/L		05/26/16 14:45	05/28/16 03:39	1
Strontium	**440**		10		ug/L		05/26/16 14:45	05/28/16 03:39	1

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.8**		1.7		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Calcium	**7900**		43		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Barium	**180**		0.85		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Magnesium	**4200**		17		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Boron	ND		8.5		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Sodium	ND		430		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Cadmium	ND		0.43		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Chromium	**14**		1.3		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Copper	**16**		1.7		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Lead	**27**		0.77		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Nickel	**11**		3.4		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Selenium	ND		1.3		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Silver	ND		0.85		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1
Zinc	**43**		2.6		mg/Kg	☼	05/26/16 14:45	05/31/16 22:01	1

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.5**		2.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Calcium	**6100**		50		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Barium	**210**		1.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Magnesium	**3800**		20		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Boron	ND		10		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Sodium	**2500**		500		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Cadmium	ND		0.50		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Chromium	**13**		1.5		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Copper	**15**		2.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Lead	**13**		0.90		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**11**		4.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Selenium	ND		1.5		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Silver	ND		1.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1
Zinc	**40**		3.0		mg/Kg	☼	05/26/16 14:45	05/31/16 22:13	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		18		ug/Kg		05/31/16 12:20	05/31/16 18:40	1

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		20		ug/Kg		05/31/16 12:20	05/31/16 18:52	1

General Chemistry

Client Sample ID: 0523161135
Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.74**		0.40		mg/L			05/24/16 20:41	2
Nitrate as N	ND		1.0		mg/L			05/24/16 20:41	2
Chloride	**280**		6.0		mg/L			05/24/16 20:41	2
Nitrite as N	ND		1.0		mg/L			05/24/16 20:41	2
Fluoride	**1.7**		1.0		mg/L			05/24/16 20:41	2
Sulfate	ND		10		mg/L			05/24/16 20:41	2
Phosphorus, Total	ND		0.050		mg/L		05/26/16 11:55	05/26/16 19:12	1
Total Alkalinity	**2800**		5.0		mg/L			05/26/16 12:19	1
Bicarbonate Alkalinity as CaCO3	**2800**		5.0		mg/L			05/26/16 12:19	1
Carbonate Alkalinity as CaCO3	ND		5.0		mg/L			05/26/16 12:19	1
Specific Conductance	**4500**		2.0		umhos/cm			05/25/16 21:57	1
Total Dissolved Solids	**3200**		40		mg/L			05/26/16 12:22	1
pH	**8.10**	**HF**	0.100		SU			05/24/16 22:04	1

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		8.5		mg/Kg	☼	06/01/16 08:32	06/01/16 15:17	10
Percent Moisture	**6.3**		0.1		%			05/26/16 14:10	1
Cr (III)	**14**		2.0		mg/Kg			06/03/16 08:43	1

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

General Chemistry

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.1		0.94		mg/Kg	☼	06/01/16 08:32	06/01/16 15:07	1
Percent Moisture	14.7		0.1		%			05/26/16 14:10	1
Cr (III)	12		2.0		mg/Kg			06/03/16 08:43	1

General Chemistry - Soluble

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.26		0.100		SU			05/25/16 16:39	1
Specific Conductance	410		20		umhos/cm			06/03/16 18:14	1

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.93		0.100		SU			05/25/16 16:39	1
Specific Conductance	3300		20		umhos/cm			06/03/16 18:14	1

Surrogate Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(58-140)	(80-126)	(76-127)	(75-121)
280-83564-2	0523161155	115	102	97	112
280-83564-2 MS	0523161155	112	102	110	115
280-83564-2 MSD	0523161155	117	105	112	119
280-83564-3	0523161205	74	72 X	72 X	72 X
LCS 280-328374/2-A	Lab Control Sample	97	88	82	97
LCS 280-328626/2-A	Lab Control Sample	99	102	107	104
MB 280-328374/1-A	Method Blank	97	88	86	97
MB 280-328626/1-A	Method Blank	101	99	100	103

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(78-120)	(77-120)	(70-127)	(80-125)
280-83564-1	0523161135	112	127 X	133 X	105
LCS 280-327843/4	Lab Control Sample	108	119	124	102
MB 280-327843/6	Method Blank	120	118	125	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(48-135)	(48-135)	(41-135)	(42-135)	(46-135)	(20-135)
280-83564-1	0523161135	72	79	86	81	89	89
LCS 280-327008/2-A	Lab Control Sample	76	84	89	86	91	94
LCSD 280-327008/3-A	Lab Control Sample Dup	75	81	83	80	88	89
MB 280-327008/1-A	Method Blank	69	74	87	79	88	90

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14

Surrogate Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(39-120)	(42-120)	(35-124)
280-83564-2	0523161155	67	72	78
280-83564-2 MS	0523161155	70	79	75
280-83564-2 MSD	0523161155	76	87	82
280-83564-3	0523161205	73	94	73
LCS 280-328144/2-A	Lab Control Sample	87	97	84
MB 280-328144/1-A	Method Blank	88	97	88

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFT1
Lab Sample ID	Client Sample ID	(77-123)
280-83564-2	0523161155	90
280-83564-2 MS	0523161155	72 X
280-83564-2 MSD	0523161155	84
280-83564-3	0523161205	75 X
LCS 280-328522/2-A	Lab Control Sample	92
MB 280-328522/1-A	Method Blank	88

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFT1
Lab Sample ID	Client Sample ID	(82-110)
280-83564-1	0523161135	90
LCS 280-327401/4	Lab Control Sample	88
LCSD 280-327401/5	Lab Control Sample Dup	87
MB 280-327401/3	Method Blank	101

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH1
Lab Sample ID	Client Sample ID	(49-115)
280-83564-2	0523161155	104
280-83564-3	0523161205	97

Surrogate Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
LCS 280-327066/2-A	Lab Control Sample	112
MB 280-327066/1-A	Method Blank	111

Surrogate Legend

OTPH = o-Terphenyl

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH1 (50-115)
280-83564-1	0523161135	112
LCS 280-327575/2-A	Lab Control Sample	113
LCSD 280-327575/3-A	Lab Control Sample Dup	109
MB 280-327575/1-A	Method Blank	106

Surrogate Legend

OTPH = o-Terphenyl

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-327843/6
Matrix: Water
Analysis Batch: 327843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/01/16 09:15	1
Ethylbenzene	ND		1.0		ug/L			06/01/16 09:15	1
m-Xylene & p-Xylene	ND		2.0		ug/L			06/01/16 09:15	1
o-Xylene	ND		1.0		ug/L			06/01/16 09:15	1
Toluene	ND		1.0		ug/L			06/01/16 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*70 - 127*		*06/01/16 09:15*	*1*
4-Bromofluorobenzene (Surr)	*120*		*78 - 120*		*06/01/16 09:15*	*1*
Toluene-d8 (Surr)	*102*		*80 - 125*		*06/01/16 09:15*	*1*
Dibromofluoromethane (Surr)	*118*		*77 - 120*		*06/01/16 09:15*	*1*

Lab Sample ID: LCS 280-327843/4
Matrix: Water
Analysis Batch: 327843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	5.00	4.49		ug/L		90	65 - 135
Ethylbenzene	5.00	4.32		ug/L		86	65 - 135
m-Xylene & p-Xylene	5.00	4.36		ug/L		87	65 - 135
o-Xylene	5.00	4.28		ug/L		86	65 - 135
Toluene	5.00	4.99		ug/L		100	65 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*124*		*70 - 127*
4-Bromofluorobenzene (Surr)	*108*		*78 - 120*
Toluene-d8 (Surr)	*102*		*80 - 125*
Dibromofluoromethane (Surr)	*119*		*77 - 120*

Lab Sample ID: MB 280-328374/1-A
Matrix: Solid
Analysis Batch: 328352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328374

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		06/03/16 17:00	06/03/16 19:07	1
Ethylbenzene	ND		5.0		ug/Kg		06/03/16 17:00	06/03/16 19:07	1
m-Xylene & p-Xylene	ND		2.5		ug/Kg		06/03/16 17:00	06/03/16 19:07	1
Xylenes, Total	ND		5.0		ug/Kg		06/03/16 17:00	06/03/16 19:07	1
o-Xylene	ND		2.5		ug/Kg		06/03/16 17:00	06/03/16 19:07	1
Toluene	ND		5.0		ug/Kg		06/03/16 17:00	06/03/16 19:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*58 - 140*	*06/03/16 17:00*	*06/03/16 19:07*	*1*
4-Bromofluorobenzene (Surr)	*86*		*76 - 127*	*06/03/16 17:00*	*06/03/16 19:07*	*1*
Toluene-d8 (Surr)	*88*		*80 - 126*	*06/03/16 17:00*	*06/03/16 19:07*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 121*	*06/03/16 17:00*	*06/03/16 19:07*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-328374/2-A
Matrix: Solid
Analysis Batch: 328352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328374

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	55.1		ug/Kg		110	75 - 135
Ethylbenzene	50.0	55.0		ug/Kg		110	73 - 125
m-Xylene & p-Xylene	50.0	54.1		ug/Kg		108	77 - 135
Xylenes, Total	100	108		ug/Kg		108	76 - 135
o-Xylene	50.0	54.3		ug/Kg		109	75 - 135
Toluene	50.0	58.9		ug/Kg		118	77 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*58 - 140*
4-Bromofluorobenzene (Surr)	*82*		*76 - 127*
Toluene-d8 (Surr)	*88*		*80 - 126*
Dibromofluoromethane (Surr)	*97*		*75 - 121*

Lab Sample ID: 280-83564-2 MS
Matrix: Solid
Analysis Batch: 328352

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328374

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		55.8	59.7		ug/Kg	☼	107	75 - 135
Ethylbenzene	ND		55.8	56.3		ug/Kg	☼	101	73 - 125
m-Xylene & p-Xylene	ND		55.8	56.8		ug/Kg	☼	102	77 - 135
Xylenes, Total	ND		112	114		ug/Kg	☼	102	76 - 135
o-Xylene	ND		55.8	57.0		ug/Kg	☼	102	75 - 135
Toluene	ND		55.8	64.2		ug/Kg	☼	115	77 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*58 - 140*
4-Bromofluorobenzene (Surr)	*110*		*76 - 127*
Toluene-d8 (Surr)	*102*		*80 - 126*
Dibromofluoromethane (Surr)	*115*		*75 - 121*

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 328352

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328374

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		56.1	59.4		ug/Kg	☼	106	75 - 135	1	20
Ethylbenzene	ND		56.1	54.3		ug/Kg	☼	97	73 - 125	4	20
m-Xylene & p-Xylene	ND		56.1	54.5		ug/Kg	☼	97	77 - 135	4	20
Xylenes, Total	ND		112	109		ug/Kg	☼	97	76 - 135	4	20
o-Xylene	ND		56.1	54.4		ug/Kg	☼	97	75 - 135	5	20
Toluene	ND		56.1	63.2		ug/Kg	☼	113	77 - 122	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*117*		*58 - 140*
4-Bromofluorobenzene (Surr)	*112*		*76 - 127*
Toluene-d8 (Surr)	*105*		*80 - 126*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 328352

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328374

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*119*		*75 - 121*

Lab Sample ID: MB 280-328626/1-A
Matrix: Solid
Analysis Batch: 328577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328626

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/Kg		06/06/16 18:00	06/06/16 21:09	1
Ethylbenzene	ND		5.0		ug/Kg		06/06/16 18:00	06/06/16 21:09	1
m-Xylene & p-Xylene	ND		2.5		ug/Kg		06/06/16 18:00	06/06/16 21:09	1
Xylenes, Total	ND		5.0		ug/Kg		06/06/16 18:00	06/06/16 21:09	1
o-Xylene	ND		2.5		ug/Kg		06/06/16 18:00	06/06/16 21:09	1
Toluene	ND		5.0		ug/Kg		06/06/16 18:00	06/06/16 21:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*101*		*58 - 140*	*06/06/16 18:00*	*06/06/16 21:09*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 127*	*06/06/16 18:00*	*06/06/16 21:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 126*	*06/06/16 18:00*	*06/06/16 21:09*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 121*	*06/06/16 18:00*	*06/06/16 21:09*	*1*

Lab Sample ID: LCS 280-328626/2-A
Matrix: Solid
Analysis Batch: 328577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	59.1		ug/Kg		118	75 - 135
Ethylbenzene	50.0	51.4		ug/Kg		103	73 - 125
m-Xylene & p-Xylene	50.0	52.3		ug/Kg		105	77 - 135
Xylenes, Total	100	105		ug/Kg		105	76 - 135
o-Xylene	50.0	52.8		ug/Kg		106	75 - 135
Toluene	50.0	64.3	*	ug/Kg		129	77 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*99*		*58 - 140*
4-Bromofluorobenzene (Surr)	*107*		*76 - 127*
Toluene-d8 (Surr)	*102*		*80 - 126*
Dibromofluoromethane (Surr)	*104*		*75 - 121*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-327008/1-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Acenaphthylene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-327008/1-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Anthracene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Atrazine	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzidine	ND		100		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzo[a]anthracene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzo[a]pyrene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzo[b]fluoranthene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzo[g,h,i]perylene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Benzo[k]fluoranthene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Bis(2-chloroethyl)ether	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Bromophenyl phenyl ether	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Butyl benzyl phthalate	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Caprolactam	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Carbazole	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Chloroaniline	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Chloro-3-methylphenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
2-Chloronaphthalene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
2-Chlorophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Chrysene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Cresols, Total	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Dibenz(a,h)anthracene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Dibenzofuran	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
1,4-Dichlorobenzene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
3,3'-Dichlorobenzidine	ND		50		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4-Dichlorophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Diethyl phthalate	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4-Dimethylphenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Dimethyl phthalate	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Di-n-butyl phthalate	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4-Dinitrophenol	ND		30		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4-Dinitrotoluene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,6-Dinitrotoluene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Di-n-octyl phthalate	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Fluoranthene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Fluorene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Hexachlorobenzene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Hexachlorobutadiene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Hexachlorocyclopentadiene	ND		50		ug/L		05/25/16 17:15	06/01/16 17:56	1
Hexachloroethane	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Indeno[1,2,3-cd]pyrene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
2-Methylnaphthalene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
2-Methylphenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
3 & 4 Methylphenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Naphthalene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-327008/1-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327008

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
3-Nitroaniline	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Nitroaniline	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Nitrobenzene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
2-Nitrophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
4-Nitrophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,2'-oxybis[1-chloropropane]	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Pentachlorophenol	ND		50		ug/L		05/25/16 17:15	06/01/16 17:56	1
Phenanthrene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
Phenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
Pyrene	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
1,2,4-Trichlorobenzene	ND		4.0		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4,5-Trichlorophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1
2,4,6-Trichlorophenol	ND		10		ug/L		05/25/16 17:15	06/01/16 17:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*69*		*48 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*
2-Fluorobiphenyl	*74*		*48 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*
2-Fluorophenol	*87*		*41 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*
Nitrobenzene-d5	*79*		*42 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*
Phenol-d5	*88*		*46 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*
Terphenyl-d14	*90*		*20 - 135*	*05/25/16 17:15*	*06/01/16 17:56*	*1*

Lab Sample ID: LCS 280-327008/2-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	80.0	64.3		ug/L		80	61 - 135
Acenaphthylene	80.0	61.7		ug/L		77	63 - 135
Acetophenone	80.0	73.5		ug/L		92	65 - 135
Anthracene	80.0	73.7		ug/L		92	65 - 135
Atrazine	80.0	74.9		ug/L		94	59 - 148
Benzidine	80.0	ND		ug/L		16	5 - 135
Benzo[a]anthracene	80.0	71.4		ug/L		89	65 - 135
Benzo[a]pyrene	80.0	70.3		ug/L		88	65 - 135
Benzo[b]fluoranthene	80.0	72.3		ug/L		90	65 - 135
Benzo[g,h,i]perylene	80.0	71.3		ug/L		89	65 - 135
Benzo[k]fluoranthene	80.0	79.1		ug/L		99	65 - 135
Bis(2-chloroethoxy)methane	80.0	74.3		ug/L		93	65 - 135
Bis(2-chloroethyl)ether	80.0	74.7		ug/L		93	65 - 135
Bis(2-ethylhexyl) phthalate	80.0	79.7		ug/L		100	65 - 135
4-Bromophenyl phenyl ether	80.0	65.2		ug/L		81	65 - 135
Butyl benzyl phthalate	80.0	78.6		ug/L		98	65 - 135
Caprolactam	80.0	74.6		ug/L		93	52 - 135

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-327008/2-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbazole	80.0	75.2		ug/L		94	65 - 135
4-Chloroaniline	80.0	62.8		ug/L		79	30 - 135
4-Chloro-3-methylphenol	80.0	77.7		ug/L		97	65 - 135
2-Chloronaphthalene	80.0	54.4		ug/L		68	59 - 135
2-Chlorophenol	80.0	73.7		ug/L		92	58 - 135
4-Chlorophenyl phenyl ether	80.0	64.6		ug/L		81	65 - 135
Chrysene	80.0	75.0		ug/L		94	65 - 135
Dibenz(a,h)anthracene	80.0	69.1		ug/L		86	63 - 135
Dibenzofuran	80.0	64.4		ug/L		81	64 - 135
1,4-Dichlorobenzene	80.0	35.8		ug/L		45	40 - 135
3,3'-Dichlorobenzidine	80.0	71.9		ug/L		90	18 - 135
2,4-Dichlorophenol	80.0	72.3		ug/L		90	62 - 135
Diethyl phthalate	80.0	76.6		ug/L		96	65 - 135
2,4-Dimethylphenol	80.0	68.3		ug/L		85	44 - 135
Dimethyl phthalate	80.0	75.8		ug/L		95	65 - 135
Di-n-butyl phthalate	80.0	77.1		ug/L		96	65 - 135
4,6-Dinitro-2-methylphenol	160	130		ug/L		81	63 - 135
2,4-Dinitrophenol	160	121		ug/L		76	50 - 135
2,4-Dinitrotoluene	80.0	78.3		ug/L		98	65 - 135
2,6-Dinitrotoluene	80.0	75.6		ug/L		95	65 - 135
Di-n-octyl phthalate	80.0	72.8		ug/L		91	65 - 135
Fluoranthene	80.0	71.8		ug/L		90	65 - 135
Fluorene	80.0	66.7		ug/L		83	65 - 135
Hexachlorobenzene	80.0	63.1		ug/L		79	65 - 135
Hexachlorobutadiene	80.0	26.4	*	ug/L		33	35 - 135
Hexachlorocyclopentadiene	80.0	ND	*	ug/L		8	10 - 135
Hexachloroethane	80.0	29.8		ug/L		37	32 - 135
Indeno[1,2,3-cd]pyrene	80.0	64.9		ug/L		81	65 - 135
2-Methylnaphthalene	80.0	47.2		ug/L		59	56 - 135
2-Methylphenol	80.0	75.1		ug/L		94	62 - 135
3 & 4 Methylphenol	80.0	70.9		ug/L		89	65 - 135
Naphthalene	80.0	45.7		ug/L		57	56 - 135
2-Nitroaniline	80.0	80.1		ug/L		100	65 - 135
3-Nitroaniline	80.0	70.7		ug/L		88	38 - 135
4-Nitroaniline	80.0	78.6		ug/L		98	65 - 135
Nitrobenzene	80.0	72.4		ug/L		91	65 - 135
2-Nitrophenol	80.0	72.7		ug/L		91	65 - 135
4-Nitrophenol	160	161		ug/L		100	56 - 135
N-Nitrosodi-n-propylamine	80.0	70.2		ug/L		88	65 - 135
n-Nitrosodiphenylamine(as diphenylamine)	80.0	73.6		ug/L		92	65 - 135
2,2'-oxybis[1-chloropropane]	80.0	63.7		ug/L		80	55 - 135
Pentachlorophenol	160	122		ug/L		76	52 - 135
Phenanthrene	80.0	72.9		ug/L		91	65 - 135
Phenol	80.0	72.6		ug/L		91	61 - 135
Pyrene	80.0	75.6		ug/L		95	65 - 135
1,2,4-Trichlorobenzene	80.0	32.9	*	ug/L		41	44 - 135
2,4,5-Trichlorophenol	80.0	71.5		ug/L		89	64 - 135

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-327008/2-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327008

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,6-Trichlorophenol			80.0	74.7		ug/L		93	62 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*48 - 135*
2-Fluorobiphenyl	*84*		*48 - 135*
2-Fluorophenol	*89*		*41 - 135*
Nitrobenzene-d5	*86*		*42 - 135*
Phenol-d5	*91*		*46 - 135*
Terphenyl-d14	*94*		*20 - 135*

Lab Sample ID: LCSD 280-327008/3-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 327008

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene			80.0	66.5		ug/L		83	61 - 135	4	30
Acenaphthylene			80.0	64.4		ug/L		81	63 - 135	4	30
Acetophenone			80.0	70.5		ug/L		88	65 - 135	4	35
Anthracene			80.0	69.1		ug/L		86	65 - 135	7	30
Atrazine			80.0	70.7		ug/L		88	59 - 148	6	31
Benzidine			80.0	ND	*	ug/L		43	5 - 135	92	50
Benzo[a]anthracene			80.0	68.4		ug/L		85	65 - 135	4	30
Benzo[a]pyrene			80.0	65.4		ug/L		82	65 - 135	7	30
Benzo[b]fluoranthene			80.0	68.0		ug/L		85	65 - 135	6	30
Benzo[g,h,i]perylene			80.0	67.1		ug/L		84	65 - 135	6	30
Benzo[k]fluoranthene			80.0	72.8		ug/L		91	65 - 135	8	30
Bis(2-chloroethoxy)methane			80.0	69.8		ug/L		87	65 - 135	6	30
Bis(2-chloroethyl)ether			80.0	72.0		ug/L		90	65 - 135	4	41
Bis(2-ethylhexyl) phthalate			80.0	77.5		ug/L		97	65 - 135	3	30
4-Bromophenyl phenyl ether			80.0	63.4		ug/L		79	65 - 135	3	30
Butyl benzyl phthalate			80.0	76.0		ug/L		95	65 - 135	3	30
Caprolactam			80.0	75.9		ug/L		95	52 - 135	2	30
Carbazole			80.0	72.6		ug/L		91	65 - 135	4	30
4-Chloroaniline			80.0	63.4		ug/L		79	30 - 135	1	38
4-Chloro-3-methylphenol			80.0	72.9		ug/L		91	65 - 135	6	30
2-Chloronaphthalene			80.0	59.1		ug/L		74	59 - 135	8	30
2-Chlorophenol			80.0	69.9		ug/L		87	58 - 135	5	46
4-Chlorophenyl phenyl ether			80.0	63.7		ug/L		80	65 - 135	1	30
Chrysene			80.0	70.0		ug/L		88	65 - 135	7	30
Dibenz(a,h)anthracene			80.0	63.4		ug/L		79	63 - 135	9	30
Dibenzofuran			80.0	65.8		ug/L		82	64 - 135	2	30
1,4-Dichlorobenzene			80.0	35.5		ug/L		44	40 - 135	1	50
3,3'-Dichlorobenzidine			80.0	70.5		ug/L		88	18 - 135	2	50
2,4-Dichlorophenol			80.0	68.0		ug/L		85	62 - 135	6	30
Diethyl phthalate			80.0	74.8		ug/L		93	65 - 135	2	30
2,4-Dimethylphenol			80.0	63.3		ug/L		79	44 - 135	8	30
Dimethyl phthalate			80.0	71.9		ug/L		90	65 - 135	5	30
Di-n-butyl phthalate			80.0	75.0		ug/L		94	65 - 135	3	30

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-327008/3-A
Matrix: Water
Analysis Batch: 327981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 327008

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,6-Dinitro-2-methylphenol			160	124		ug/L		78	63 - 135	5	30
2,4-Dinitrophenol			160	118		ug/L		74	50 - 135	3	30
2,4-Dinitrotoluene			80.0	76.6		ug/L		96	65 - 135	2	32
2,6-Dinitrotoluene			80.0	73.8		ug/L		92	65 - 135	3	30
Di-n-octyl phthalate			80.0	71.8		ug/L		90	65 - 135	1	30
Fluoranthene			80.0	69.9		ug/L		87	65 - 135	3	30
Fluorene			80.0	67.0		ug/L		84	65 - 135	0	30
Hexachlorobenzene			80.0	59.0		ug/L		74	65 - 135	7	30
Hexachlorobutadiene			80.0	27.8		ug/L		35	35 - 135	5	47
Hexachlorocyclopentadiene			80.0	ND	*	ug/L		7	10 - 135	3	66
Hexachloroethane			80.0	30.0		ug/L		38	32 - 135	1	53
Indeno[1,2,3-cd]pyrene			80.0	61.5		ug/L		77	65 - 135	5	30
2-Methylnaphthalene			80.0	52.9		ug/L		66	56 - 135	11	32
2-Methylphenol			80.0	70.9		ug/L		89	62 - 135	6	40
3 & 4 Methylphenol			80.0	68.3		ug/L		85	65 - 135	4	36
Naphthalene			80.0	48.1		ug/L		60	56 - 135	5	40
2-Nitroaniline			80.0	77.3		ug/L		97	65 - 135	4	30
3-Nitroaniline			80.0	72.1		ug/L		90	38 - 135	2	30
4-Nitroaniline			80.0	77.2		ug/L		96	65 - 135	2	34
Nitrobenzene			80.0	67.3		ug/L		84	65 - 135	7	39
2-Nitrophenol			80.0	69.7		ug/L		87	65 - 135	4	38
4-Nitrophenol			160	165		ug/L		103	56 - 135	3	50
N-Nitrosodi-n-propylamine			80.0	66.8		ug/L		83	65 - 135	5	30
n-Nitrosodiphenylamine(as diphenylamine)			80.0	70.2		ug/L		88	65 - 135	5	30
2,2'-oxybis[1-chloropropane]			80.0	61.9		ug/L		77	55 - 135	3	37
Pentachlorophenol			160	114		ug/L		71	52 - 135	7	30
Phenanthrene			80.0	69.3		ug/L		87	65 - 135	5	30
Phenol			80.0	69.9		ug/L		87	61 - 135	4	37
Pyrene			80.0	70.5		ug/L		88	65 - 135	7	30
1,2,4-Trichlorobenzene			80.0	36.5		ug/L		46	44 - 135	10	42
2,4,5-Trichlorophenol			80.0	68.9		ug/L		86	64 - 135	4	30
2,4,6-Trichlorophenol			80.0	70.9		ug/L		89	62 - 135	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*75*		*48 - 135*
2-Fluorobiphenyl	*81*		*48 - 135*
2-Fluorophenol	*83*		*41 - 135*
Nitrobenzene-d5	*80*		*42 - 135*
Phenol-d5	*88*		*46 - 135*
Terphenyl-d14	*89*		*20 - 135*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-328144/1-A
Matrix: Solid
Analysis Batch: 328691

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328144

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Anthracene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Chrysene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Fluoranthene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Fluorene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Naphthalene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1
Pyrene	ND		5.0		ug/Kg		06/02/16 14:40	06/07/16 14:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*39 - 120*	*06/02/16 14:40*	*06/07/16 14:42*	*1*
Nitrobenzene-d5	*97*		*42 - 120*	*06/02/16 14:40*	*06/07/16 14:42*	*1*
Terphenyl-d14	*88*		*35 - 124*	*06/02/16 14:40*	*06/07/16 14:42*	*1*

Lab Sample ID: LCS 280-328144/2-A
Matrix: Solid
Analysis Batch: 328691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328144

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acenaphthene			30.0	26.4		ug/Kg		88	35 - 120		
Anthracene			30.0	28.0		ug/Kg		93	43 - 120		
Benzo[a]anthracene			30.0	28.8		ug/Kg		96	36 - 120		
Benzo[a]pyrene			30.0	29.5		ug/Kg		98	20 - 120		
Benzo[b]fluoranthene			30.0	29.3		ug/Kg		98	37 - 120		
Benzo[k]fluoranthene			30.0	29.3		ug/Kg		98	46 - 120		
Chrysene			30.0	29.7		ug/Kg		99	34 - 120		
Dibenz(a,h)anthracene			30.0	32.3		ug/Kg		108	20 - 120		
Fluoranthene			30.0	27.3		ug/Kg		91	45 - 120		
Fluorene			30.0	26.6		ug/Kg		89	44 - 120		
Indeno[1,2,3-cd]pyrene			30.0	30.6		ug/Kg		102	20 - 127		
Naphthalene			30.0	27.5		ug/Kg		92	44 - 120		
Pyrene			30.0	27.4		ug/Kg		91	43 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*39 - 120*
Nitrobenzene-d5	*97*		*42 - 120*
Terphenyl-d14	*84*		*35 - 124*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-83564-2 MS
Matrix: Solid
Analysis Batch: 328691

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328144

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		29.6	25.0		ug/Kg	☼	84	35 - 120
Anthracene	ND		29.6	27.7		ug/Kg	☼	91	43 - 120
Benzo[a]anthracene	ND		29.6	29.9		ug/Kg	☼	96	36 - 120
Benzo[a]pyrene	ND		29.6	29.1		ug/Kg	☼	98	20 - 120
Benzo[b]fluoranthene	ND		29.6	28.5		ug/Kg	☼	85	37 - 120
Benzo[k]fluoranthene	ND		29.6	25.3		ug/Kg	☼	85	46 - 120
Chrysene	7.5		29.6	33.9		ug/Kg	☼	89	34 - 120
Dibenz(a,h)anthracene	ND		29.6	26.3		ug/Kg	☼	89	20 - 120
Fluoranthene	ND		29.6	28.6		ug/Kg	☼	86	45 - 120
Fluorene	ND		29.6	25.5		ug/Kg	☼	86	44 - 120
Indeno[1,2,3-cd]pyrene	ND		29.6	25.3		ug/Kg	☼	85	20 - 127
Naphthalene	9.2		29.6	30.6		ug/Kg	☼	73	44 - 120
Pyrene	ND		29.6	28.8		ug/Kg	☼	83	43 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*39 - 120*
Nitrobenzene-d5	*79*		*42 - 120*
Terphenyl-d14	*75*		*35 - 124*

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 328691

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328144

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		31.7	29.4		ug/Kg	☼	93	35 - 120	16	50
Anthracene	ND		31.7	32.1		ug/Kg	☼	99	43 - 120	15	50
Benzo[a]anthracene	ND		31.7	35.1		ug/Kg	☼	106	36 - 120	16	40
Benzo[a]pyrene	ND		31.7	33.4		ug/Kg	☼	105	20 - 120	14	30
Benzo[b]fluoranthene	ND		31.7	32.5		ug/Kg	☼	92	37 - 120	13	28
Benzo[k]fluoranthene	ND		31.7	29.1		ug/Kg	☼	92	46 - 120	14	28
Chrysene	7.5		31.7	38.9		ug/Kg	☼	99	34 - 120	14	41
Dibenz(a,h)anthracene	ND		31.7	29.4		ug/Kg	☼	93	20 - 120	11	25
Fluoranthene	ND		31.7	35.1		ug/Kg	☼	101	45 - 120	20	30
Fluorene	ND		31.7	30.1		ug/Kg	☼	95	44 - 120	17	50
Indeno[1,2,3-cd]pyrene	ND		31.7	29.2		ug/Kg	☼	92	20 - 127	15	50
Naphthalene	9.2		31.7	33.4		ug/Kg	☼	76	44 - 120	8	50
Pyrene	ND		31.7	35.5		ug/Kg	☼	99	43 - 120	21	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*39 - 120*
Nitrobenzene-d5	*87*		*42 - 120*
Terphenyl-d14	*82*		*35 - 124*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-327401/3
Matrix: Water
Analysis Batch: 327401

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		25		ug/L			05/27/16 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*101*		*82 - 110*		*05/27/16 11:39*	*1*

Lab Sample ID: LCS 280-327401/4
Matrix: Water
Analysis Batch: 327401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			101	85.2		ug/L		84	79 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*88*		*82 - 110*

Lab Sample ID: LCSD 280-327401/5
Matrix: Water
Analysis Batch: 327401

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			101	85.6		ug/L		85	79 - 149	0	27

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*87*		*82 - 110*

Lab Sample ID: MB 280-328522/1-A
Matrix: Solid
Analysis Batch: 328544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328522

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		1.2		mg/Kg		06/06/16 10:14	06/06/16 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*77 - 123*	*06/06/16 10:14*	*06/06/16 12:21*	*1*

Lab Sample ID: LCS 280-328522/2-A
Matrix: Solid
Analysis Batch: 328544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328522

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			5.50	5.24		mg/Kg		95	85 - 153		

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 280-328522/2-A
Matrix: Solid
Analysis Batch: 328544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328522

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*92*		*77 - 123*

Lab Sample ID: 280-83564-2 MS
Matrix: Solid
Analysis Batch: 328544

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328522

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10	ND	F1	5.42	4.09	F1	mg/Kg		75	85 - 153

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*72*	*X*	*77 - 123*

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 328544

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 328522

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	ND	F1	5.34	4.73		mg/Kg		89	85 - 153	15	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*84*		*77 - 123*

Method: RSK-175 - Dissolved Gases in Water

Lab Sample ID: MB 280-327785/5
Matrix: Water
Analysis Batch: 327785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		5.0		ug/L			05/31/16 20:00	1
Ethane	ND		5.0		ug/L			05/31/16 20:00	1
Propane	ND		5.0		ug/L			05/31/16 20:00	1

Lab Sample ID: LCS 280-327785/16
Matrix: Water
Analysis Batch: 327785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane			146	150		ug/L		102	75 - 125
Ethane			274	273		ug/L		100	75 - 125
Propane			401	379		ug/L		94	75 - 125

Method: RSK-175 - Dissolved Gases in Water (Continued)

Lab Sample ID: LCSD 280-327785/17
Matrix: Water
Analysis Batch: 327785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	146	161		ug/L		110	75 - 125	7	20
Ethane	274	297		ug/L		109	75 - 125	9	20
Propane	401	420		ug/L		105	75 - 125	11	20

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 280-327066/1-A
Matrix: Solid
Analysis Batch: 328257

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327066

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		4.0		mg/Kg		05/25/16 20:00	06/03/16 14:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*111*		*49 - 115*	*05/25/16 20:00*	*06/03/16 14:29*	*1*

Lab Sample ID: LCS 280-327066/2-A
Matrix: Solid
Analysis Batch: 328257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327066

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.7	62.0		mg/Kg		93	53 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*112*		*49 - 115*

Lab Sample ID: MB 280-327575/1-A
Matrix: Water
Analysis Batch: 328257

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327575

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.25		mg/L		05/29/16 12:16	06/03/16 19:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*		*50 - 115*	*05/29/16 12:16*	*06/03/16 19:01*	*1*

Lab Sample ID: LCS 280-327575/2-A
Matrix: Water
Analysis Batch: 328257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.00	1.82		mg/L		91	54 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*113*		*50 - 115*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 280-327575/3-A
Matrix: Water
Analysis Batch: 328257

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 327575

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2.00	1.73		mg/L		87	54 - 115	5	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*109*		*50 - 115*

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-327057/1-A
Matrix: Solid
Analysis Batch: 328114

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 327057

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	ND		1.2		No Unit		05/25/16 17:29	06/01/16 14:27	10

Lab Sample ID: 280-83564-3 DU
Matrix: Solid
Analysis Batch: 328114

Client Sample ID: 0523161205
Prep Type: Soluble
Prep Batch: 327057

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sodium Adsorption Ratio	26			25.5		No Unit				2	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-327049/1-A
Matrix: Water
Analysis Batch: 327524

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327049

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		10		ug/L		05/26/16 14:45	05/28/16 03:33	1
Beryllium	ND		1.0		ug/L		05/26/16 14:45	05/28/16 03:33	1
Calcium	ND		200		ug/L		05/26/16 14:45	05/28/16 03:33	1
Iron	ND		100		ug/L		05/26/16 14:45	05/28/16 03:33	1
Magnesium	ND		200		ug/L		05/26/16 14:45	05/28/16 03:33	1
Manganese	ND		10		ug/L		05/26/16 14:45	05/28/16 03:33	1
Potassium	ND		3000		ug/L		05/26/16 14:45	05/28/16 03:33	1
Selenium	ND		15		ug/L		05/26/16 14:45	05/28/16 03:33	1
Sodium	ND		1000		ug/L		05/26/16 14:45	05/28/16 03:33	1
Strontium	ND		10		ug/L		05/26/16 14:45	05/28/16 03:33	1

Lab Sample ID: LCS 280-327049/2-A
Matrix: Water
Analysis Batch: 327524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327049

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium			2000	2040		ug/L		102	90 - 112
Beryllium			50.0	48.8		ug/L		98	89 - 113
Calcium			50000	48800		ug/L		98	90 - 111

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-327049/2-A
Matrix: Water
Analysis Batch: 327524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327049

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1000	1050		ug/L		105	89 - 115
Magnesium	50000	49500		ug/L		99	90 - 113
Manganese	500	484		ug/L		97	90 - 110
Potassium	50000	51300		ug/L		103	89 - 114
Selenium	2000	1970		ug/L		98	85 - 112
Sodium	50000	51200		ug/L		102	90 - 115
Strontium	1000	994		ug/L		99	90 - 111

Lab Sample ID: MB 280-327058/1-A
Matrix: Solid
Analysis Batch: 327859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327058

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Barium	ND		1.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Boron	ND		10		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Calcium	ND		50		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Cadmium	ND		0.50		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Chromium	ND		1.5		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Magnesium	ND		20		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Copper	ND		2.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Lead	ND		0.90		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Nickel	ND		4.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Selenium	ND		1.5		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Sodium	ND		500		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Silver	ND		1.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1
Zinc	ND		3.0		mg/Kg		05/26/16 14:45	05/31/16 21:56	1

Lab Sample ID: LCS 280-327058/2-A
Matrix: Solid
Analysis Batch: 327859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327058

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	97.9		mg/Kg		98	85 - 110
Barium	200	194		mg/Kg		97	87 - 112
Boron	100	92.4		mg/Kg		92	80 - 120
Calcium	5000	4800		mg/Kg		96	82 - 114
Cadmium	10.0	9.72		mg/Kg		97	87 - 110
Chromium	20.0	19.8		mg/Kg		99	84 - 114
Magnesium	5000	4750		mg/Kg		95	90 - 110
Copper	25.0	24.5		mg/Kg		98	88 - 110
Lead	50.0	48.0		mg/Kg		96	86 - 110
Nickel	50.0	47.5		mg/Kg		95	87 - 110
Selenium	200	185		mg/Kg		93	83 - 110
Sodium	5000	4880		mg/Kg		98	90 - 112
Silver	5.00	4.99		mg/Kg		100	87 - 114
Zinc	50.0	47.9		mg/Kg		96	76 - 114

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-83564-2 MS
Matrix: Solid
Analysis Batch: 327859

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 327058

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.8		83.7	75.9		mg/Kg	☼	86	76 - 111
Barium	180		167	334		mg/Kg	☼	91	52 - 159
Boron	ND		83.7	75.8		mg/Kg	☼	83	80 - 120
Calcium	7900		4180	11400		mg/Kg	☼	86	43 - 165
Cadmium	ND		8.37	7.55		mg/Kg	☼	87	40 - 130
Chromium	14		16.7	31.9		mg/Kg	☼	109	70 - 200
Magnesium	4200		4180	8320		mg/Kg	☼	99	64 - 145
Copper	16		20.9	35.4		mg/Kg	☼	95	37 - 187
Lead	27		41.8	58.5		mg/Kg	☼	75	70 - 200
Nickel	11		41.8	44.1		mg/Kg	☼	79	61 - 126
Selenium	ND		167	135		mg/Kg	☼	81	76 - 104
Sodium	ND		4180	3720		mg/Kg	☼	87	78 - 111
Silver	ND		4.18	3.78		mg/Kg	☼	90	75 - 141
Zinc	43		41.8	80.4		mg/Kg	☼	90	70 - 200

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 327859

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 327058

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.8		92.9	84.5		mg/Kg	☼	87	76 - 111	11	20
Barium	180		186	358		mg/Kg	☼	95	52 - 159	7	20
Boron	ND		92.9	84.8		mg/Kg	☼	85	80 - 120	11	20
Calcium	7900		4640	11300		mg/Kg	☼	75	43 - 165	1	20
Cadmium	ND		9.29	8.28		mg/Kg	☼	87	40 - 130	9	20
Chromium	14		18.6	34.2		mg/Kg	☼	111	70 - 200	7	20
Magnesium	4200		4640	8900		mg/Kg	☼	102	64 - 145	7	20
Copper	16		23.2	37.6		mg/Kg	☼	95	37 - 187	6	20
Lead	27		46.4	68.5		mg/Kg	☼	90	70 - 200	16	20
Nickel	11		46.4	49.0		mg/Kg	☼	82	61 - 126	11	20
Selenium	ND		186	152		mg/Kg	☼	82	76 - 104	12	20
Sodium	ND		4640	4150		mg/Kg	☼	88	78 - 111	11	20
Silver	ND		4.64	4.26		mg/Kg	☼	92	75 - 141	12	20
Zinc	43		46.4	84.8		mg/Kg	☼	90	70 - 200	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-327379/1-A
Matrix: Solid
Analysis Batch: 327855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327379

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		17		ug/Kg		05/31/16 12:20	05/31/16 18:35	1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-327379/2-A
Matrix: Solid
Analysis Batch: 327855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	417	434		ug/Kg		104	87 - 111

Lab Sample ID: 280-83564-2 MS
Matrix: Solid
Analysis Batch: 327855

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 327379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		472	498		ug/Kg		102	87 - 111

Lab Sample ID: 280-83564-2 MSD
Matrix: Solid
Analysis Batch: 327855

Client Sample ID: 0523161155
Prep Type: Total/NA
Prep Batch: 327379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		463	487		ug/Kg		102	87 - 111	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-326807/75
Matrix: Water
Analysis Batch: 326807

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.50	mg/L			05/24/16 20:21	1
Nitrite as N	ND		0.50	mg/L			05/24/16 20:21	1

Lab Sample ID: LCS 280-326807/73
Matrix: Water
Analysis Batch: 326807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.92		mg/L		98	90 - 110
Nitrite as N	5.00	4.89		mg/L		98	90 - 110

Lab Sample ID: LCSD 280-326807/74
Matrix: Water
Analysis Batch: 326807

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.00	4.90		mg/L		98	90 - 110	0	10
Nitrite as N	5.00	4.89		mg/L		98	90 - 110	0	10

Lab Sample ID: MRL 280-326807/10
Matrix: Water
Analysis Batch: 326807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.200	ND		mg/L		107	50 - 150
Nitrite as N	0.200	ND		mg/L		110	50 - 150

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-83564-1 MS
Matrix: Water
Analysis Batch: 326807

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	ND		10.0	9.92		mg/L		99	80 - 120		
Nitrite as N	ND		10.0	9.61		mg/L		96	80 - 120		

Lab Sample ID: 280-83564-1 MSD
Matrix: Water
Analysis Batch: 326807

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		10.0	9.95		mg/L		99	80 - 120	0	20
Nitrite as N	ND		10.0	9.62		mg/L		96	80 - 120	0	20

Lab Sample ID: 280-83564-1 DU
Matrix: Water
Analysis Batch: 326807

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	ND		ND		mg/L		NC	15
Nitrite as N	ND		ND		mg/L		NC	15

Lab Sample ID: MB 280-326808/75
Matrix: Water
Analysis Batch: 326808

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/24/16 20:21	1
Chloride	ND		3.0		mg/L			05/24/16 20:21	1
Fluoride	ND		0.50		mg/L			05/24/16 20:21	1
Sulfate	ND		5.0		mg/L			05/24/16 20:21	1

Lab Sample ID: LCS 280-326808/73
Matrix: Water
Analysis Batch: 326808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	4.94		mg/L		99	90 - 110		
Chloride			100	96.4		mg/L		96	90 - 110		
Fluoride			5.00	4.86		mg/L		97	90 - 110		
Sulfate			100	96.4		mg/L		96	90 - 110		

Lab Sample ID: LCSD 280-326808/74
Matrix: Water
Analysis Batch: 326808

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			5.00	4.98		mg/L		100	90 - 110	1	10
Chloride			100	96.5		mg/L		96	90 - 110	0	10
Fluoride			5.00	4.79		mg/L		96	90 - 110	1	10
Sulfate			100	96.4		mg/L		96	90 - 110	0	10

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-326808/10
Matrix: Water
Analysis Batch: 326808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.200	0.224		mg/L		112	50 - 150
Chloride	2.50	ND		mg/L		95	50 - 150
Fluoride	0.200	ND		mg/L		110	50 - 150
Sulfate	2.50	ND		mg/L		95	50 - 150

Lab Sample ID: 280-83564-1 MS
Matrix: Water
Analysis Batch: 326808

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.74		10.0	10.9		mg/L		101	80 - 120
Chloride	280		50.0	336	4	mg/L		115	80 - 120
Fluoride	1.7		10.0	10.6		mg/L		89	80 - 120
Sulfate	ND		50.0	47.0		mg/L		92	80 - 120

Lab Sample ID: 280-83564-1 MSD
Matrix: Water
Analysis Batch: 326808

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.74		10.0	10.9		mg/L		101	80 - 120	0	20
Chloride	280		50.0	337	4	mg/L		117	80 - 120	0	20
Fluoride	1.7		10.0	10.7		mg/L		89	80 - 120	0	20
Sulfate	ND		50.0	47.4		mg/L		93	80 - 120	1	20

Lab Sample ID: 280-83564-1 DU
Matrix: Water
Analysis Batch: 326808

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bromide	0.74		0.775		mg/L		4	15
Chloride	280		277		mg/L		0.4	15
Fluoride	1.7		1.72		mg/L		1	15
Sulfate	ND		ND		mg/L		NC	15

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 280-327211/4-A
Matrix: Water
Analysis Batch: 327287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327211

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	mg/L		05/26/16 11:55	05/26/16 19:12	1

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: LCS 280-327211/3-A
Matrix: Water
Analysis Batch: 327287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.547		mg/L		109	90 - 110

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 240-232656/9-A
Matrix: Solid
Analysis Batch: 232762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 232656

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.80		mg/Kg		06/01/16 08:32	06/01/16 14:48	1

Lab Sample ID: LCSI 240-232656/11-A
Matrix: Solid
Analysis Batch: 232762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 232656

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	643	674		mg/Kg		105	75 - 125

Lab Sample ID: LCSS 240-232656/10-A
Matrix: Solid
Analysis Batch: 232762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 232656

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	20.0	20.9		mg/Kg		105	90 - 110

Method: 9045C - pH

Lab Sample ID: LCS 280-326972/1-A
Matrix: Solid
Analysis Batch: 327033

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH adj. to 25 deg C	7.00	7.050		SU		101	97 - 103

Method: 9050A - Specific Conductance

Lab Sample ID: MB 280-328359/4-A
Matrix: Solid
Analysis Batch: 328364

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		20		umhos/cm			06/03/16 18:14	1

Method: 9050A - Specific Conductance (Continued)

Lab Sample ID: LCS 280-328359/3-A
Matrix: Solid
Analysis Batch: 328364

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	14000	13800		umhos/cm		99	90 - 110

Lab Sample ID: 280-83564-2 DU
Matrix: Solid
Analysis Batch: 328364

Client Sample ID: 0523161155
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	410		423		umhos/cm		2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-327231/5
Matrix: Water
Analysis Batch: 327231

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	mg/L			05/26/16 11:58	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	mg/L			05/26/16 11:58	1
Carbonate Alkalinity as CaCO3	ND		5.0	mg/L			05/26/16 11:58	1

Lab Sample ID: LCS 280-327231/4
Matrix: Water
Analysis Batch: 327231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity	1000	1040		mg/L		104	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-327075/4
Matrix: Water
Analysis Batch: 327075

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		2.0	umhos/cm			05/25/16 21:55	1

Lab Sample ID: LCS 280-327075/3
Matrix: Water
Analysis Batch: 327075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	1410	1400		umhos/cm		99	90 - 110

Lab Sample ID: 280-83564-1 DU
Matrix: Water
Analysis Batch: 327075

Client Sample ID: 0523161135
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	4500		4570		umhos/cm		0.9	10

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-327214/1
Matrix: Water
Analysis Batch: 327214

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			05/26/16 12:22	1

Lab Sample ID: LCS 280-327214/2
Matrix: Water
Analysis Batch: 327214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			501	497		mg/L		99	86 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-327048/4
Matrix: Water
Analysis Batch: 327048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	6.940		SU		99	99 - 101		

Method: SM3500 CR B - Chromium, Trivalent

Lab Sample ID: MB 280-328250/1
Matrix: Solid
Analysis Batch: 328250

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (III)	ND		2.0		mg/Kg			06/03/16 08:43	1

GC/MS VOA

Analysis Batch: 327843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	8260B	
LCS 280-327843/4	Lab Control Sample	Total/NA	Water	8260B	
MB 280-327843/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 328352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	8260B	328374
280-83564-2 MS	0523161155	Total/NA	Solid	8260B	328374
280-83564-2 MSD	0523161155	Total/NA	Solid	8260B	328374
LCS 280-328374/2-A	Lab Control Sample	Total/NA	Solid	8260B	328374
MB 280-328374/1-A	Method Blank	Total/NA	Solid	8260B	328374

Prep Batch: 328374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	5030B	
280-83564-2 MS	0523161155	Total/NA	Solid	5030B	
280-83564-2 MSD	0523161155	Total/NA	Solid	5030B	
LCS 280-328374/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-328374/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 328577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-3	0523161205	Total/NA	Solid	8260B	328626
LCS 280-328626/2-A	Lab Control Sample	Total/NA	Solid	8260B	328626
MB 280-328626/1-A	Method Blank	Total/NA	Solid	8260B	328626

Prep Batch: 328626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-3	0523161205	Total/NA	Solid	5030B	
LCS 280-328626/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-328626/1-A	Method Blank	Total/NA	Solid	5030B	

GC/MS Semi VOA

Prep Batch: 327008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	3520C	
LCS 280-327008/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 280-327008/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 280-327008/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 327981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	8270C	327008
LCS 280-327008/2-A	Lab Control Sample	Total/NA	Water	8270C	327008
LCSD 280-327008/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	327008
MB 280-327008/1-A	Method Blank	Total/NA	Water	8270C	327008

GC/MS Semi VOA (Continued)

Prep Batch: 328144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	3546	
280-83564-2 MS	0523161155	Total/NA	Solid	3546	
280-83564-2 MSD	0523161155	Total/NA	Solid	3546	
280-83564-3	0523161205	Total/NA	Solid	3546	
LCS 280-328144/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-328144/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 328691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	8270C SIM	328144
280-83564-2 MS	0523161155	Total/NA	Solid	8270C SIM	328144
280-83564-2 MSD	0523161155	Total/NA	Solid	8270C SIM	328144
280-83564-3	0523161205	Total/NA	Solid	8270C SIM	328144
LCS 280-328144/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	328144
MB 280-328144/1-A	Method Blank	Total/NA	Solid	8270C SIM	328144

GC VOA

Analysis Batch: 327401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	8015B	
LCS 280-327401/4	Lab Control Sample	Total/NA	Water	8015B	
LCSD 280-327401/5	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 280-327401/3	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 327785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	RSK-175	
LCS 280-327785/16	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-327785/17	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 280-327785/5	Method Blank	Total/NA	Water	RSK-175	

Prep Batch: 328522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	5030B	
280-83564-2 MS	0523161155	Total/NA	Solid	5030B	
280-83564-2 MSD	0523161155	Total/NA	Solid	5030B	
280-83564-3	0523161205	Total/NA	Solid	5030B	
LCS 280-328522/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-328522/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 328544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	8015B	328522
280-83564-2 MS	0523161155	Total/NA	Solid	8015B	328522
280-83564-2 MSD	0523161155	Total/NA	Solid	8015B	328522
280-83564-3	0523161205	Total/NA	Solid	8015B	328522
LCS 280-328522/2-A	Lab Control Sample	Total/NA	Solid	8015B	328522
MB 280-328522/1-A	Method Blank	Total/NA	Solid	8015B	328522

GC Semi VOA

Prep Batch: 327066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	3546	
280-83564-3	0523161205	Total/NA	Solid	3546	
LCS 280-327066/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-327066/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 327575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	3510C	
LCS 280-327575/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-327575/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 280-327575/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 328257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	8015B	327575
280-83564-2	0523161155	Total/NA	Solid	8015B	327066
280-83564-3	0523161205	Total/NA	Solid	8015B	327066
LCS 280-327066/2-A	Lab Control Sample	Total/NA	Solid	8015B	327066
LCS 280-327575/2-A	Lab Control Sample	Total/NA	Water	8015B	327575
LCSD 280-327575/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	327575
MB 280-327066/1-A	Method Blank	Total/NA	Solid	8015B	327066
MB 280-327575/1-A	Method Blank	Total/NA	Water	8015B	327575

Metals

Prep Batch: 327049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	3010A	
LCS 280-327049/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-327049/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 327057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	20B	
280-83564-3	0523161205	Soluble	Solid	20B	
280-83564-3 DU	0523161205	Soluble	Solid	20B	
MB 280-327057/1-A	Method Blank	Soluble	Solid	20B	

Prep Batch: 327058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	3050B	
280-83564-2 MS	0523161155	Total/NA	Solid	3050B	
280-83564-2 MSD	0523161155	Total/NA	Solid	3050B	
280-83564-3	0523161205	Total/NA	Solid	3050B	
LCS 280-327058/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-327058/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 327379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 327379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2 MS	0523161155	Total/NA	Solid	7471A	
280-83564-2 MSD	0523161155	Total/NA	Solid	7471A	
280-83564-3	0523161205	Total/NA	Solid	7471A	
LCS 280-327379/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 280-327379/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 327524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	6010B	327049
LCS 280-327049/2-A	Lab Control Sample	Total/NA	Water	6010B	327049
MB 280-327049/1-A	Method Blank	Total/NA	Water	6010B	327049

Analysis Batch: 327855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	7471A	327379
280-83564-2 MS	0523161155	Total/NA	Solid	7471A	327379
280-83564-2 MSD	0523161155	Total/NA	Solid	7471A	327379
280-83564-3	0523161205	Total/NA	Solid	7471A	327379
LCS 280-327379/2-A	Lab Control Sample	Total/NA	Solid	7471A	327379
MB 280-327379/1-A	Method Blank	Total/NA	Solid	7471A	327379

Analysis Batch: 327859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	6010B	327058
280-83564-2 MS	0523161155	Total/NA	Solid	6010B	327058
280-83564-2 MSD	0523161155	Total/NA	Solid	6010B	327058
280-83564-3	0523161205	Total/NA	Solid	6010B	327058
LCS 280-327058/2-A	Lab Control Sample	Total/NA	Solid	6010B	327058
MB 280-327058/1-A	Method Blank	Total/NA	Solid	6010B	327058

Analysis Batch: 328114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	20B	327057
280-83564-3	0523161205	Soluble	Solid	20B	327057
280-83564-3 DU	0523161205	Soluble	Solid	20B	327057
MB 280-327057/1-A	Method Blank	Soluble	Solid	20B	327057

General Chemistry

Prep Batch: 232656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	3060A	
280-83564-3	0523161205	Total/NA	Solid	3060A	
LCSI 240-232656/11-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 240-232656/10-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 240-232656/9-A	Method Blank	Total/NA	Solid	3060A	

Analysis Batch: 232762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	7196A	232656

General Chemistry (Continued)

Analysis Batch: 232762 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-3	0523161205	Total/NA	Solid	7196A	232656
LCSI 240-232656/11-A	Lab Control Sample	Total/NA	Solid	7196A	232656
LCSS 240-232656/10-A	Lab Control Sample	Total/NA	Solid	7196A	232656
MB 240-232656/9-A	Method Blank	Total/NA	Solid	7196A	232656

Analysis Batch: 326807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	300.0	
280-83564-1 DU	0523161135	Total/NA	Water	300.0	
280-83564-1 MS	0523161135	Total/NA	Water	300.0	
280-83564-1 MSD	0523161135	Total/NA	Water	300.0	
LCS 280-326807/73	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-326807/74	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 280-326807/75	Method Blank	Total/NA	Water	300.0	
MRL 280-326807/10	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 326808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	300.0	
280-83564-1 DU	0523161135	Total/NA	Water	300.0	
280-83564-1 MS	0523161135	Total/NA	Water	300.0	
280-83564-1 MSD	0523161135	Total/NA	Water	300.0	
LCS 280-326808/73	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-326808/74	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 280-326808/75	Method Blank	Total/NA	Water	300.0	
MRL 280-326808/10	Lab Control Sample	Total/NA	Water	300.0	

Leach Batch: 326972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	DI Leach	
280-83564-3	0523161205	Soluble	Solid	DI Leach	
LCS 280-326972/1-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 327033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	9045C	326972
280-83564-3	0523161205	Soluble	Solid	9045C	326972
LCS 280-326972/1-A	Lab Control Sample	Soluble	Solid	9045C	326972

Analysis Batch: 327048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	SM 4500 H+ B	
LCS 280-327048/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 327075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	SM 2510B	
280-83564-1 DU	0523161135	Total/NA	Water	SM 2510B	
LCS 280-327075/3	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 280-327075/4	Method Blank	Total/NA	Water	SM 2510B	

General Chemistry (Continued)

Prep Batch: 327211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	365.2/365.3/365	
LCS 280-327211/3-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
MB 280-327211/4-A	Method Blank	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 327214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	SM 2540C	
LCS 280-327214/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 280-327214/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 327231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	SM 2320B	
LCS 280-327231/4	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 280-327231/5	Method Blank	Total/NA	Water	SM 2320B	

Analysis Batch: 327238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	Moisture	
280-83564-3	0523161205	Total/NA	Solid	Moisture	

Analysis Batch: 327287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-1	0523161135	Total/NA	Water	365.1	327211
LCS 280-327211/3-A	Lab Control Sample	Total/NA	Water	365.1	327211
MB 280-327211/4-A	Method Blank	Total/NA	Water	365.1	327211

Analysis Batch: 328250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Total/NA	Solid	SM3500 CR B	
280-83564-3	0523161205	Total/NA	Solid	SM3500 CR B	
MB 280-328250/1	Method Blank	Total/NA	Solid	SM3500 CR B	

Leach Batch: 328359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	DI Leach	
280-83564-2 DU	0523161155	Soluble	Solid	DI Leach	
280-83564-3	0523161205	Soluble	Solid	DI Leach	
LCS 280-328359/3-A	Lab Control Sample	Soluble	Solid	DI Leach	
MB 280-328359/4-A	Method Blank	Soluble	Solid	DI Leach	

Analysis Batch: 328364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-83564-2	0523161155	Soluble	Solid	9050A	328359
280-83564-2 DU	0523161155	Soluble	Solid	9050A	328359
280-83564-3	0523161205	Soluble	Solid	9050A	328359
LCS 280-328359/3-A	Lab Control Sample	Soluble	Solid	9050A	328359
MB 280-328359/4-A	Method Blank	Soluble	Solid	9050A	328359

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Client Sample ID: 0523161135

Date Collected: 05/23/16 11:35
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	327843	06/01/16 14:30	DPI	TAL DEN
Total/NA	Prep	3520C			943.6 mL	1 mL	327008	05/25/16 17:15	ASF	TAL DEN
Total/NA	Analysis	8270C		1	943.6 mL	1 mL	327981	06/01/16 20:42	AFH	TAL DEN
Total/NA	Analysis	8015B		1	5 mL	5 mL	327401	05/27/16 17:49	EER	TAL DEN
Total/NA	Analysis	RSK-175		1	18 mL	18 mL	327785	05/31/16 22:48	MPS	TAL DEN
Total/NA	Prep	3510C			964.7 mL	1 mL	327575	05/29/16 12:16	MAV	TAL DEN
Total/NA	Analysis	8015B		1	964.7 mL	1 mL	328257	06/03/16 21:29	TEM	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	327049	05/26/16 14:45	MLS	TAL DEN
Total/NA	Analysis	6010B		1	50 mL	50 mL	327524	05/28/16 03:39	SJS	TAL DEN
Total/NA	Analysis	300.0		2	5 mL	5 mL	326807	05/24/16 20:41	AFB	TAL DEN
Total/NA	Analysis	300.0		2	5 mL	5 mL	326808	05/24/16 20:41	AFB	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	327211	05/26/16 11:55	CML	TAL DEN
Total/NA	Analysis	365.1		1	50 mL	50 mL	327287	05/26/16 19:12	CML	TAL DEN
Total/NA	Analysis	SM 2320B		1			327231	05/26/16 12:19	IEU	TAL DEN
Total/NA	Analysis	SM 2510B		1		25 mL	327075	05/25/16 21:57	RSM	TAL DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	327214	05/26/16 12:22	MNG	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			327048	05/24/16 22:04	MAS	TAL DEN

Client Sample ID: 0523161155

Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.37 g	10 mL	328522	06/06/16 10:14	EER	TAL DEN
Total/NA	Analysis	8015B		1	10.37 g	10 mL	328544	06/06/16 13:11	EER	TAL DEN
Soluble	Prep	20B			1.0 g	1.0 mL	327057	05/25/16 17:29	SEJ	TAL DEN
Soluble	Analysis	20B		10			328114	06/01/16 14:30	CMK	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	327379	05/31/16 12:20	CDH	TAL DEN
Total/NA	Analysis	7471A		1	0.57 g	50 mL	327855	05/31/16 18:40	CDH	TAL DEN
Soluble	Leach	DI Leach			40.02 g	40 mL	326972	05/25/16 11:26	MRD	TAL DEN
Soluble	Analysis	9045C		1	1 mL	1 mL	327033	05/25/16 16:39	MRD	TAL DEN
Soluble	Leach	DI Leach			10.00 g	100 mL	328359	06/03/16 17:48	RSM	TAL DEN
Soluble	Analysis	9050A		1		25 mL	328364	06/03/16 18:14	RSM	TAL DEN
Total/NA	Analysis	Moisture		1			327238	05/26/16 14:10	MRD	TAL DEN
Total/NA	Analysis	SM3500 CR B		1			328250	06/03/16 08:43	DEG	TAL DEN

Client Sample ID: 0523161155

Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2

Matrix: Solid
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.231 g	5 mL	328374	06/03/16 17:00	ADD	TAL DEN

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Client Sample ID: 0523161155
Date Collected: 05/23/16 11:55
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-2
Matrix: Solid
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.231 g	5 mL	328352	06/03/16 20:31	ADD	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	328144	06/02/16 14:40	JRK	TAL DEN
Total/NA	Analysis	8270C SIM		1	31.5 g	1 mL	328691	06/07/16 18:36	KGV	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	327066	05/25/16 20:00	EJP	TAL DEN
Total/NA	Analysis	8015B		1	30.1 g	1 mL	328257	06/03/16 17:22	TEM	TAL DEN
Total/NA	Prep	3050B			1.251 g	100 mL	327058	05/26/16 14:45	MLS	TAL DEN
Total/NA	Analysis	6010B		1	1.251 g	100 mL	327859	05/31/16 22:01	CMK	TAL DEN
Total/NA	Prep	3060A			2.5 g	100 mL	232656	06/01/16 08:32	DTN	TAL CAN
Total/NA	Analysis	7196A		10	2.5 g	100 mL	232762	06/01/16 15:17	DTN	TAL CAN

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.40 g	10 mL	328522	06/06/16 10:14	EER	TAL DEN
Total/NA	Analysis	8015B		1	10.40 g	10 mL	328544	06/06/16 14:27	EER	TAL DEN
Soluble	Prep	20B			1.0 g	1.0 mL	327057	05/25/16 17:29	SEJ	TAL DEN
Soluble	Analysis	20B		10			328114	06/01/16 14:33	CMK	TAL DEN
Total/NA	Prep	7471A			0.50 g	50 mL	327379	05/31/16 12:20	CDH	TAL DEN
Total/NA	Analysis	7471A		1	0.50 g	50 mL	327855	05/31/16 18:52	CDH	TAL DEN
Soluble	Leach	DI Leach			40.00 g	40 mL	326972	05/25/16 11:26	MRD	TAL DEN
Soluble	Analysis	9045C		1	1 mL	1 mL	327033	05/25/16 16:39	MRD	TAL DEN
Soluble	Leach	DI Leach			10.07 g	100 mL	328359	06/03/16 17:48	RSM	TAL DEN
Soluble	Analysis	9050A		1		25 mL	328364	06/03/16 18:14	RSM	TAL DEN
Total/NA	Analysis	Moisture		1			327238	05/26/16 14:10	MRD	TAL DEN
Total/NA	Analysis	SM3500 CR B		1			328250	06/03/16 08:43	DEG	TAL DEN

Client Sample ID: 0523161205
Date Collected: 05/23/16 12:05
Date Received: 05/24/16 08:55

Lab Sample ID: 280-83564-3
Matrix: Solid
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.071 g	5 mL	328626	06/06/16 18:00	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5.071 g	5 mL	328577	06/06/16 22:30	ADD	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	328144	06/02/16 14:40	JRK	TAL DEN
Total/NA	Analysis	8270C SIM		1	31.1 g	1 mL	328691	06/07/16 19:55	KGV	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	327066	05/25/16 20:00	EJP	TAL DEN
Total/NA	Analysis	8015B		1	30.4 g	1 mL	328257	06/03/16 17:47	TEM	TAL DEN
Total/NA	Prep	3050B			1.173 g	100 mL	327058	05/26/16 14:45	MLS	TAL DEN
Total/NA	Analysis	6010B		1	1.173 g	100 mL	327859	05/31/16 22:13	CMK	TAL DEN
Total/NA	Prep	3060A			2.5 g	100 mL	232656	06/01/16 08:32	DTN	TAL CAN
Total/NA	Analysis	7196A		1	2.5 g	100 mL	232762	06/01/16 15:07	DTN	TAL CAN

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Certification Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-17
Arizona	State Program	9	AZ0713	12-19-16
Arkansas DEQ	State Program	6	88-0687	06-01-17
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-16
Georgia	State Program	4	N/A	01-09-17
Illinois	NELAP	5	200017	04-30-17
Iowa	State Program	7	370	11-30-16
Kansas	NELAP	7	E-10166	07-31-16
Louisiana	NELAP	6	02096	06-30-16
Maine	State Program	1	CO0002	03-03-17
Minnesota	NELAP	5	8-999-405	12-31-16
Nevada	State Program	9	CO0026	07-31-16
New Hampshire	NELAP	1	205310	04-28-17
New Jersey	NELAP	2	CO004	06-30-16
New York	NELAP	2	11964	04-01-17
North Carolina (WW/SW)	State Program	4	358	12-31-16
North Dakota	State Program	8	R-034	01-09-17
Oklahoma	State Program	6	8614	08-31-16
Oregon	NELAP	10	4025	01-09-17
Pennsylvania	NELAP	3	68-00664	07-31-16
South Carolina	State Program	4	72002001	01-09-17
Texas	NELAP	6	T104704183-15-11	09-30-16
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-16
Virginia	NELAP	3	460232	06-14-17
Washington	State Program	10	C583	08-03-16
West Virginia DEP	State Program	3	354	11-30-16
Wisconsin	State Program	5	999615430	08-31-16
Wyoming (UST)	A2LA	8	2907.01	10-31-17

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	07-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: COGCC - Jim Hughes

TestAmerica Job ID: 280-83564-1

Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16 *
Texas	NELAP	6	T104704517-15-5	08-31-16 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jim Hughes	Lab PM: Rydberg, Donna R	Carrier Tracking No(s):	COC No: 280-51555-18683.1
Client Contact: Jim Hughes	Phone: 970-903-4072	E-Mail: donna.rydberg@testamericainc.com		Page: Page 1 of 1
Company: Colorado Oil&Gas Conservation Commision		Analysis Requested		Job #:
Address: 1120 Lincoln St. Suite 801	Due Date Requested:			
City: Denver	TAT Requested (days):			
State, Zip: CO, 80203				
Phone: 970-884-0974	PO #:			
Email: jimo.hughes@state.co.us	WO #:			
Project Name: COGCC	Project #: ~~200439229~~ 200439229			
Site: Hathaway Flint #1	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GRO	DRO	Total Metals	Alk, Cond., pH, Anions	RSK	TDS	8270 Semi-Volatiles	8260 BTEX	GRO	8270, DRO, Metals, SAR	8260/BTEX	pH, Specific Conductance & Total Phosphorus	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		D		A			A						
0523161135	5/23/16	1135	G	W	N		X	X	X	X	X	X	X	X						
0523161155	5/23/16	1155	G	S											X	X	X	X		
0523161205	5/23/16	1205	G	S											X	X	X	X		

280-83564 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/23/16 1500	COGCC		0855 24May16	TAD
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.8 IR5-0.0 24May16 Transfer

4.4/C3.9

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/9/2016

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Rydberg, Donna R	Carrier Tracking No(s):	COC No: 280-353053.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: donna.rydberg@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 280-83564-1
Address: 4101 Shuffel Street NW, ,	Due Date Requested: 6/6/2016			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: COGCC - Jim Hughes	Project #: 28014933			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A/3060A	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
0523161155 (280-83564-2)	5/23/16	11:55 Mountain		Solid			X	1	
0523161205 (280-83564-3)	5/23/16	12:05 Mountain		Solid			X	1	

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 52515 1510	Company	Received by:	Date/Time: 5/26/16 930	Company TAC	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative Login # :
Canton Facility

Client TA Denver Site Name 280149 33

Cooler unpacked by: DSD

Cooler Received on 5/26/16 Opened on 5/26/16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Denver Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 4.4 °C Corrected Cooler Temp. 3.9 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. ~~Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #~~ Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-83564-1

Login Number: 83564
List Number: 1
Creator: Muniz, Ashley T

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	