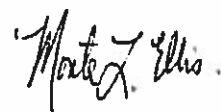


April Stegall
Dominion Energy Wexpro
PO Box 458
Rock Springs, WY 82901

Date: September 29, 2017
Request Number: 36684R
Date Received: 9/11/17
Matrix: Soil

BTEX, GRO, DRO Analyzed by ALS Lab in Fort Collins Colorado.
The following pages apply to the samples listed below.

WAL Lab Number	ALS Lab Number	Wexpro Sample ID
R1956	1709250-1	Carl Allen 7 100623 Sample #1 9/8/17 10:45am



Laboratory Manager



WYOMING ANALYTICAL LABORATORIES, INC

1660 Harrison Street
Laramie, WY 82070

www.wal-lab.com
laramie@wal-lab.com

ph: 307-742-7995
fax: 307-721-8956



Wednesday, September 27, 2017

Monte Ellis
Wyoming Analytical Laboratories, Inc.
1660 Harrison St.
Laramie, WY 82070

Re: ALS Workorder: 1709250
Project Name:
Project Number: 36684R

Dear Mr. Ellis:

One soil sample was received from Wyoming Analytical Laboratories, Inc., on 9/13/2017. The sample was scheduled for the following analyses:

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

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

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

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

Sincerely,

ALS Environmental
Shiloh J. Summy
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1709250

GC/MS Volatiles:

The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

DRO:

The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.
 Project: 36684R
 Sample ID: R1956
 Legal Location:
 Collection Date: 9/8/2017 10:45

Date: 27-Sep-17
 Work Order: 1709250
 Lab ID: 1709250-1
 Matrix: SOIL
 Percent Moisture: 19.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 9/15/2017	PrepBy: JFN
Diesel Range Organics	1300	LD	49	MG/KG	8	9/19/2017 12:39
Surr: O-TERPHENYL	103		49-114	%REC	8	9/19/2017 12:39
GC/MS Volatiles			SW8260		Prep Date: 9/20/2017	PrepBy: JXK
BENZENE	130	J	310	UG/KG	50	9/20/2017 17:19
TOLUENE	7600		310	UG/KG	50	9/20/2017 17:19
ETHYLBENZENE	3900		310	UG/KG	50	9/20/2017 17:19
M+P-XYLENE	13000		3100	UG/KG	500	9/15/2017 18:22
O-XYLENE	6400		310	UG/KG	50	9/20/2017 17:19
TOTAL XYLENES	13000		5	UG/KG	1	9/20/2017 17:19
Surr: DIBROMOFLUOROMETHANE	96		61-134	%REC	50	9/20/2017 17:19
Surr: DIBROMOFLUOROMETHANE	97		61-134	%REC	500	9/15/2017 18:22
Surr: TOLUENE-D8	95		57-135	%REC	50	9/20/2017 17:19
Surr: TOLUENE-D8	97		57-135	%REC	500	9/15/2017 18:22
Surr: 4-BROMOFLUOROBENZENE	93		52-151	%REC	50	9/20/2017 17:19
Surr: 4-BROMOFLUOROBENZENE	93		52-151	%REC	500	9/15/2017 18:22
GASOLINE RANGE ORGANICS	390000		31000	UG/KG	50	9/20/2017 17:19

Client: Wyoming Analytical Laboratories, Inc.
 Project: 36684R
 Sample ID: R1956
 Legal Location:
 Collection Date: 9/8/2017 10:45

Date: 27-Sep-17
 Work Order: 1709250
 Lab ID: 1709250-1
 Matrix: SOIL
 Percent Moisture: 19.3

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

Radiochemistry:

U or ND - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
 Y2 - Chemical Yield outside default limits.
 W - DER is greater than Warning Limit of 1.42
 * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
 G - Sample density differs by more than 15% of LCS density.
 D - DER is greater than Control Limit
 M - Requested MDC not met.
 LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS, Matrix Spike Recovery within control limits.
 N - Matrix Spike Recovery outside control limits
 NC - Not Calculated for duplicate results less than 5 times MDC
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 9/27/2017 1:17:

Client: Wyoming Analytical Laboratories, Inc.

QC BATCH REPORT

Work Order: 1709250

Project: 36684R

Batch ID: HC170915-81-1 Instrument ID FUELS-1 Method: SW8015M

LCS	Sample ID: HC170915-81			Units: MG/KG			Analysis Date: 9/15/2017 15:35				
Client ID:	Run ID: HC170915-8A						Prep Date: 9/15/2017		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	125	5	125		100	81-129				20	
Surr: O-TERPHENYL	7.56		10		76	49-114					

LCSD	Sample ID: HC170915-81			Units: MG/KG			Analysis Date: 9/15/2017 15:56				
Client ID:	Run ID: HC170915-8A						Prep Date: 9/15/2017		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	128	5	125		102	81-129		125	3	20	
Surr: O-TERPHENYL	7.71		10		77	49-114			2		

MB	Sample ID: HC170915-81			Units: MG/KG			Analysis Date: 9/15/2017 14:31				
Client ID:	Run ID: HC170915-8A			Prep Date: 9/15/2017			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	7.34		10		73	49-114					

The following samples were analyzed in this batch:

1709250-1

Client: Wyoming Analytical Laboratories, Inc.
 Work Order: 1709250
 Project: 36684R

QC BATCH REPORT

Batch ID: VL170915-2-1 Instrument ID HPV1 Method: SW8260

LCS Sample ID: VL170915-2 Units: UG/KG Analysis Date: 9/15/2017 10:15
 Client ID: Run ID: VL170915-2A Prep Date: 9/15/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	42.8	5	40		107	73-126				30	
TOLUENE	41.5	5	40		104	71-127				30	
ETHYLBENZENE	41.4	5	40		103	74-127				30	
M+P-XYLENE	81.3	5	80		102	79-126				30	
O-XYLENE	41.4	5	40		103	77-125				30	
Surr: DIBROMOFLUOROMETHANE	49.9		50		100	61-134					
Surr: TOLUENE-D8	50.7		50		101	57-135					
Surr: 4-BROMOFLUOROBENZENE	48.4		50		97	52-151					

LCSD Sample ID: VL170915-2 Units: UG/KG Analysis Date: 9/15/2017 10:37
 Client ID: Run ID: VL170915-2A Prep Date: 9/15/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	44.3	5	40		111	73-126		42.8	4	30	
TOLUENE	41.9	5	40		105	71-127		41.5	1	30	
ETHYLBENZENE	41.5	5	40		104	74-127		41.4	0	30	
M+P-XYLENE	82.7	5	80		103	79-126		81.3	2	30	
O-XYLENE	41.1	5	40		103	77-125		41.4	1	30	
Surr: DIBROMOFLUOROMETHANE	49.9		50		100	61-134			0		
Surr: TOLUENE-D8	49.7		50		99	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	47.6		50		95	52-151			2		

MB Sample ID: VL170915-2 Units: UG/KG Analysis Date: 9/15/2017 12:30
 Client ID: Run ID: VL170915-2A Prep Date: 9/15/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
TOTAL XYLENES	ND	5									
Surr: DIBROMOFLUOROMETHANE	50.4		50		101	61-134					
Surr: TOLUENE-D8	49.7		50		99	57-135					
Surr: 4-BROMOFLUOROBENZENE	45.7		50		91	52-151					

Client: Wyoming Analytical Laboratories, Inc.
Work Order: 1709250
Project: 36684R

QC BATCH REPORT

Batch ID: VL170915-2-1 Instrument ID HPV1 Method: SW8260

MB Sample ID: VL170915-2M Units: UG/KG Analysis Date: 9/15/2017 12:52
Client ID: Run ID: VL170915-2A Prep Date: 9/15/2017 DF: 50

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	250									
TOLUENE	ND	250									
ETHYLBENZENE	ND	250									
M+P-XYLENE	ND	250									
O-XYLENE	ND	250									
TOTAL XYLENES	ND	5									
Surr: DIBROMOFLUOROMETHANE	2420		2500		97	61-134					
Surr: TOLUENE-D8	2450		2500		98	57-135					
Surr: 4-BROMOFLUOROBENZENE	2380		2500		95	52-151					

The following samples were analyzed in this batch:

1709250-1

Client: Wyoming Analytical Laboratories, Inc.
 Work Order: 1709250
 Project: 36684R

QC BATCH REPORT

Batch ID: VL170920-2-1 Instrument ID HPV1 Method: SW8260

LCS Sample ID: VL170920-2 Units: UG/KG Analysis Date: 9/20/2017 13:32
 Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	41.6	5	40		104	73-126				30	
TOLUENE	40	5	40		100	71-127				30	
ETHYLBENZENE	38.8	5	40		97	74-127				30	
M+P-XYLENE	76.9	5	80		96	79-126				30	
O-XYLENE	39.2	5	40		98	77-125				30	
Surr: DIBROMOFLUOROMETHANE	49.2		50		98	61-134					
Surr: TOLUENE-D8	48.5		50		97	57-135					
Surr: 4-BROMOFLUOROBENZENE	49.1		50		98	52-151					

LCSD Sample ID: VL170920-2 Units: UG/KG Analysis Date: 9/20/2017 13:54
 Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	43.9	5	40		110	73-126		41.6	5	30	
TOLUENE	41.4	5	40		104	71-127		40	4	30	
ETHYLBENZENE	41.1	5	40		103	74-127		38.8	6	30	
M+P-XYLENE	80.5	5	80		101	79-126		76.9	4	30	
O-XYLENE	40.7	5	40		102	77-125		39.2	4	30	
Surr: DIBROMOFLUOROMETHANE	49.7		50		99	61-134				1	
Surr: TOLUENE-D8	49.1		50		98	57-135				1	
Surr: 4-BROMOFLUOROBENZENE	48.2		50		96	52-151				2	

MB Sample ID: VL170920-2 Units: UG/KG Analysis Date: 9/20/2017 15:45
 Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
TOTAL XYLENES	ND	5									
Surr: DIBROMOFLUOROMETHANE	50.7		50		101	61-134					
Surr: TOLUENE-D8	49.3		50		99	57-135					
Surr: 4-BROMOFLUOROBENZENE	46.8		50		94	52-151					

Client: Wyoming Analytical Laboratories, Inc.
Work Order: 1709250
Project: 36684R

QC BATCH REPORT

Batch ID: VL170920-2-1 Instrument ID HPV1 Method: SW8260

MB Sample ID: VL170920-2M Units: UG/KG Analysis Date: 9/20/2017 16:07
Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 50

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	ND	250									
TOLUENE	ND	250									
ETHYLBENZENE	ND	250									
M+P-XYLENE	ND	250									
O-XYLENE	ND	250									
TOTAL XYLENES	ND	5									
Surr: DIBROMOFLUOROMETHANE	2440		2500		98	61-134					
Surr: TOLUENE-D8	2450		2500		98	57-135					
Surr: 4-BROMOFLUOROBENZENE	2290		2500		92	52-151					

The following samples were analyzed in this batch:

1709250-1

Client: Wyoming Analytical Laboratories, Inc.
Work Order: 1709250
Project: 36684R

QC BATCH REPORT

Batch ID: VL170920-2-2 Instrument ID HPV1 Method: SW8260

LCS Sample ID: VL170920-5 Units: UG/KG Analysis Date: 9/20/2017 14:38

Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1840	500	2000		92	80-120				20	

LCSD Sample ID: VL170920-5 Units: UG/KG Analysis Date: 9/20/2017 15:01

Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1860	500	2000		93	80-120		1840	1	20	

MB Sample ID: VL170920-2 Units: UG/KG Analysis Date: 9/20/2017 15:45

Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	500									

MB Sample ID: VL170920-2M Units: UG/KG Analysis Date: 9/20/2017 16:07

Client ID: Run ID: VL170920-2A Prep Date: 9/20/2017 DF: 50

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	25000									

The following samples were analyzed in this batch: 1709250-1