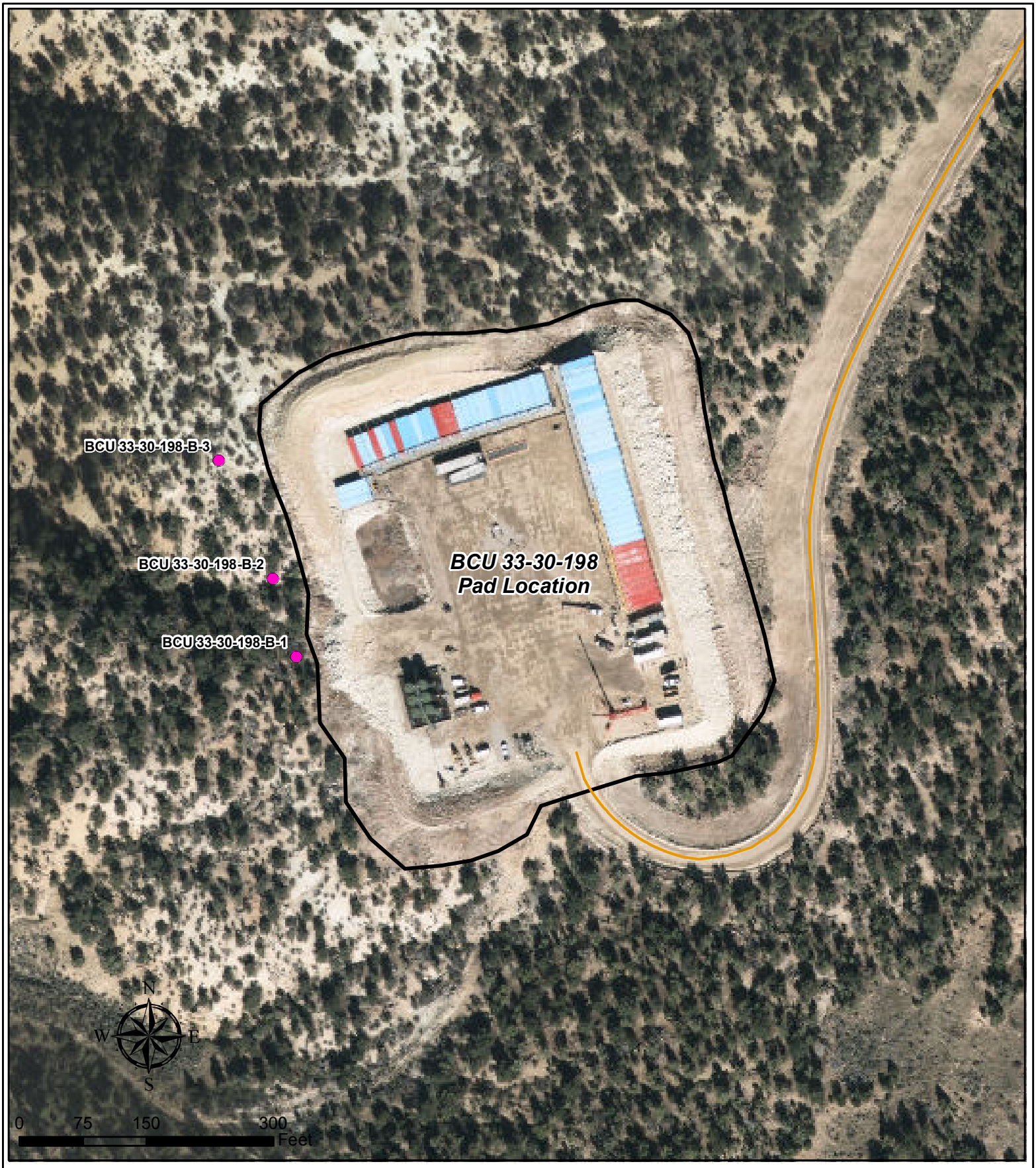


Legend

- Sample Location
- Existing Road
- Existing Pad Limit of Disturbance

BCU 33-30-198
Arsenic Background Sample Location Map
T1N R98W, Section 30

May 4, 2015

WPXENERGY

T:\Projects\PIC_MultiProspect\Ongoing\ArsenicSampling\BCU 33-30-198.mxd mreynold 5/4/2015 11:02:18 AM

28-Apr-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **BCU 33-30-198 Cuttings** Work Order: **15041390**

Dear Karolina,

ALS Environmental received 1 sample on 23-Apr-2015 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 22.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 28-Apr-15

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: **15041390**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15041390-01	BCU 33-30-198 Cuttings	Soil		4/22/2015 11:25	4/23/2015 10:00	☐

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: 15041390

Case Narrative

Batch 70199, Method ICP_6010_S, Sample 15041390-01A MS/MSD: The MS and MSD recovery was above the upper control limit for Chromium. The corresponding result in the parent sample may be biased high.

Batch 70199, Method ICP_6010_S, Sample 15041390-01A MS/MSD: The MS and MSD recovery was below the lower control limit for Lead. The corresponding result in the parent sample may be biased low.

Batch 70199, Method ICP_6010_S, Sample 15041390-01A MS/MSD: The MS and MSD recoveries were outside of the control limits for Barium and Copper; however, the results in the parent sample are greater than 4x the spike amount. No qualification is required.

Batch 70221, Method DRO_8015_S, Sample 15041390-01A: DRO surrogate recovery high due to matrix interference.

ALS Group USA, Corp

Date: 28-Apr-15

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *28-Apr-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: 15041390
Sample ID: BCU 33-30-198 Cuttings
Lab ID: 15041390-01
Collection Date: 4/22/2015 11:25 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 4/24/15	Analyst: **IT**
DRO (C10-C28)	**610**		**5.2**	**mg/Kg-dry**	1	4/27/2015 02:33 PM
Surr: 4-Terphenyl-d14	*169*	S	*39-133*	*%REC*	1	4/27/2015 02:33 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 4/23/15	Analyst: **IT**
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	4/23/2015 07:46 PM
Surr: Toluene-d8	*128*		*50-150*	*%REC*	1	4/23/2015 07:46 PM
MERCURY BY CVAA			**SW7471B**		Prep: SW7471 / 4/23/15	Analyst: **LR**
Mercury	**0.034**		**0.017**	**mg/Kg-dry**	1	4/23/2015 06:16 PM
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/23/15	Analyst: **JEC**
Arsenic	**5.8**		**0.83**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Barium	**4,600**		**0.83**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Cadmium	ND		1.7	mg/Kg-dry	2	4/27/2015 12:37 PM
Chromium	**14**		**0.83**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Copper	**36**		**1.7**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Lead	**15**		**0.83**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Nickel	**17**		**0.83**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
Selenium	ND		1.7	mg/Kg-dry	2	4/27/2015 12:37 PM
Silver	ND		0.83	mg/Kg-dry	2	4/27/2015 12:37 PM
Zinc	**50**		**1.7**	**mg/Kg-dry**	2	4/27/2015 12:37 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 4/27/15	Analyst: **JEC**
Calcium	**27**		**5.0**	**mg/L**	10	4/27/2015 02:48 PM
Magnesium	**8.6**		**2.0**	**mg/L**	10	4/27/2015 02:48 PM
Sodium	**3,200**		**2.0**	**mg/L**	10	4/27/2015 02:48 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 4/27/15	Analyst: **JEC**
Sodium Adsorption Ratio	**140**		**0.010**	**none**	1	4/27/2015
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3541 / 4/24/15	Analyst: **RS**
Acenaphthene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Anthracene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Benzo(a)anthracene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Benzo(a)pyrene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Benzo(b)fluoranthene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Benzo(g,h,i)perylene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Benzo(k)fluoranthene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Chrysene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Dibenzo(a,h)anthracene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: 15041390
Sample ID: BCU 33-30-198 Cuttings
Lab ID: 15041390-01
Collection Date: 4/22/2015 11:25 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Fluorene	**73**		**8.4**	**µg/Kg-dry**	1	4/24/2015 08:45 PM
Indeno(1,2,3-cd)pyrene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Naphthalene	**560**		**8.4**	**µg/Kg-dry**	1	4/24/2015 08:45 PM
Pyrene	ND		8.4	µg/Kg-dry	1	4/24/2015 08:45 PM
Surr: 2-Fluorobiphenyl	*71.1*		*12-100*	*%REC*	1	4/24/2015 08:45 PM
Surr: 4-Terphenyl-d14	*101*		*25-137*	*%REC*	1	4/24/2015 08:45 PM
Surr: Nitrobenzene-d5	*59.5*		*37-107*	*%REC*	1	4/24/2015 08:45 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 4/23/15	Analyst: **AK**
Benzene	**58**		**39**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
Ethylbenzene	**39**		**39**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
m,p-Xylene	**370**		**78**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
o-Xylene	**86**		**39**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
Toluene	**320**		**39**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
Xylenes, Total	**450**		**120**	**µg/Kg-dry**	1	4/27/2015 07:38 PM
Surr: 1,2-Dichloroethane-d4	*95.3*		*70-130*	*%REC*	1	4/27/2015 07:38 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	4/27/2015 07:38 PM
Surr: Dibromofluoromethane	*93.5*		*70-130*	*%REC*	1	4/27/2015 07:38 PM
Surr: Toluene-d8	*98.2*		*70-130*	*%REC*	1	4/27/2015 07:38 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 4/27/15	Analyst: **JB**
Electrical Conductivity @ Saturation	**16**		**0.25**	**mmhos/cm @2**	50	4/27/2015 04:15 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JB**
Chromium, Trivalent	**14**		**0.65**	**mg/Kg-dry**	1	4/27/2015 05:50 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 4/24/15	Analyst: **MB**
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	4/27/2015 03:30 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**23**		**0.050**	**% of sample**	1	4/24/2015 02:04 PM
PH			**SW9045D**		Prep: EXTRACT / 4/23/15	Analyst: **JB**
pH	**8.5**			**s.u.**	1	4/24/2015 11:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

QC BATCH REPORT

Batch ID: **70221** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-70221-70221** Units: **mg/Kg** Analysis Date: **4/24/2015 06:06 PM**

Client ID: Run ID: **GC8_150424C** SeqNo: **3243531** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*1.63*	0	*2*	0	*81.5*	*39-133*	0			

LCS Sample ID: **DLCSS1-70221-70221** Units: **mg/Kg** Analysis Date: **4/24/2015 06:36 PM**

Client ID: Run ID: **GC8_150424C** SeqNo: **3243532** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	205.4	5.0	200	0	103	61-109	0			
Surr: 4-Terphenyl-d14	*1.526*	0	*2*	0	*76.3*	*39-133*	0			

MS Sample ID: **15041416-01C MS** Units: **mg/Kg** Analysis Date: **4/24/2015 07:36 PM**

Client ID: Run ID: **GC8_150424C** SeqNo: **3243533** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	294.2	8.2	327.9	53.95	73.3	48-110	0			
Surr: 4-Terphenyl-d14	*2.693*	0	*3.279*	0	*82.1*	*39-133*	0			

MSD Sample ID: **15041416-01C MSD** Units: **mg/Kg** Analysis Date: **4/24/2015 08:06 PM**

Client ID: Run ID: **GC8_150424C** SeqNo: **3243534** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	383.6	8.2	329.2	53.95	100	48-110	294.2	26.4	30	
Surr: 4-Terphenyl-d14	*3.866*	0	*3.292*	0	*117*	*39-133*	2.693	*35.8*	*30*	*R*

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70212** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-70212-70212** Units: **µg/Kg** Analysis Date: **4/23/2015 05:41 PM**
Client ID: Run ID: **GC9_150423B** SeqNo: **3239759** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	*5678*	0	*5000*	0	*114*	*50-150*	0			

LCS Sample ID: **LCS-70212-70212** Units: **µg/Kg** Analysis Date: **4/23/2015 05:17 PM**
Client ID: Run ID: **GC9_150423B** SeqNo: **3239758** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	456200	2,500	500000	0	91.2	70-130	0			
Surr: Toluene-d8	*5562*	0	*5000*	0	*111*	*50-150*	0			

MS Sample ID: **15041325-01A MS** Units: **µg/Kg** Analysis Date: **4/23/2015 06:56 PM**
Client ID: Run ID: **GC9_150423B** SeqNo: **3239762** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	518800	2,500	500000	0	104	70-130	0			
Surr: Toluene-d8	*4104*	0	*5000*	0	*82.1*	*50-150*	0			

MSD Sample ID: **15041325-01A MSD** Units: **µg/Kg** Analysis Date: **4/23/2015 07:21 PM**
Client ID: Run ID: **GC9_150423B** SeqNo: **3239763** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	465400	2,500	500000	0	93.1	70-130	518800	10.9	30	
Surr: Toluene-d8	*4730*	0	*5000*	0	*94.6*	*50-150*	4104	*14.2*	*30*	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70149** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-70149-70149** Units: **mg/Kg** Analysis Date: **4/23/2015 03:52 PM**
Client ID: Run ID: **HG1_150423A** SeqNo: **3239245** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-70149-70149** Units: **mg/Kg** Analysis Date: **4/23/2015 03:54 PM**
Client ID: Run ID: **HG1_150423A** SeqNo: **3239246** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1788	0.020	0.1665	0	107	80-120	0			

MS Sample ID: **15041266-07CMS** Units: **mg/Kg** Analysis Date: **4/23/2015 04:05 PM**
Client ID: Run ID: **HG1_150423A** SeqNo: **3239251** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1155	0.012	0.1016	0.01184	102	75-125	0			

MSD Sample ID: **15041266-07CMSD** Units: **mg/Kg** Analysis Date: **4/23/2015 04:08 PM**
Client ID: Run ID: **HG1_150423A** SeqNo: **3239252** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1209	0.013	0.1054	0.01184	103	75-125	0.1155	4.55	35	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70150** Instrument ID **ICP2** Method: **SW846 6010C**

DUP	Sample ID: **15041394-02ADUP**				Units: **mg/L**			Analysis Date: **4/27/2015 02:59 PM**			
Client ID:		Run ID: **ICP2_150427A**			SeqNo: **3244355**		Prep Date: **4/27/2015**		DF: **10**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	141.7	5.0	0	0	0	0-0	152.5	7.34			
Magnesium	27.16	2.0	0	0	0	0-0	51.75	62.3			
Sodium	535.8	2.0	0	0	0	0-0	527.3	1.59			

DUP	Sample ID: **15041394-02ADUP**				Units: **none**			Analysis Date: **4/27/2015**			
Client ID:		Run ID: **SAR_150427A**			SeqNo: **3244459**		Prep Date: **4/27/2015**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium Adsorption Ratio	10.8	0.010	0	0	0		9.415	13.7	50		

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70199** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-70199-70199** Units: **mg/L** Analysis Date: **4/23/2015 04:58 PM**
Client ID: Run ID: **ICP2_150423A** SeqNo: **3240005** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-70199-70199** Units: **mg/L** Analysis Date: **4/23/2015 05:04 PM**
Client ID: Run ID: **ICP2_150423A** SeqNo: **3240006** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.712	0.25	5	0	94.2	80-120	0			
Cadmium	4.711	0.50	5	0	94.2	80-120	0			
Chromium	5.055	0.25	5	0	101	80-120	0			
Copper	5.103	0.50	5	0	102	80-120	0			
Lead	5.016	0.25	5	0	100	80-120	0			
Nickel	5.102	0.25	5	0	102	80-120	0			
Selenium	4.757	0.50	5	0	95.1	80-120	0			
Silver	4.929	0.25	5	0	98.6	80-120	0			
Zinc	4.976	0.50	5	0	99.5	80-120	0			

MS Sample ID: **15041390-01AMS** Units: **mg/Kg** Analysis Date: **4/24/2015 04:26 PM**
Client ID: **BCU 33-30-198 Cuttings** Run ID: **ICP2_150424A** SeqNo: **3243115** Prep Date: **4/23/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.72	0.65	6.502	4.471	111	75-125	0			
Cadmium	6.347	1.3	6.502	0	97.6	75-125	0			
Chromium	19.11	0.65	6.502	10.73	129	75-125	0			S
Copper	37.24	1.3	6.502	28.05	141	75-125	0			SO
Lead	14.82	0.65	6.502	11.89	45.1	75-125	0			S
Nickel	20.12	0.65	6.502	12.99	110	75-125	0			
Selenium	6.551	1.3	6.502	0	101	75-125	0			
Silver	7.284	0.65	6.502	0.1313	110	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70199** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **15041390-01AMS** Units: **mg/Kg** Analysis Date: **4/27/2015 03:31 PM**
Client ID: **BCU 33-30-198 Cuttings** Run ID: **ICP2_150427A** SeqNo: **3244621** Prep Date: **4/23/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	3498	0.65	6.502	3583	-1310	75-125	0			SO

MSD Sample ID: **15041390-01AMSD** Units: **mg/Kg** Analysis Date: **4/24/2015 04:32 PM**
Client ID: **BCU 33-30-198 Cuttings** Run ID: **ICP2_150424A** SeqNo: **3243116** Prep Date: **4/23/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.64	0.65	6.485	4.471	111	75-125	11.72	0.649	20	
Cadmium	6.539	1.3	6.485	0	101	75-125	6.347	2.98	20	
Chromium	19.47	0.65	6.485	10.73	135	75-125	19.11	1.88	20	S
Copper	36.1	1.3	6.485	28.05	124	75-125	37.24	3.1	20	O
Lead	13.8	0.65	6.485	11.89	29.4	75-125	14.82	7.16	20	S
Nickel	19.77	0.65	6.485	12.99	105	75-125	20.12	1.78	20	
Selenium	6.777	1.3	6.485	0	105	75-125	6.551	3.4	20	
Silver	7.444	0.65	6.485	0.1313	113	75-125	7.284	2.17	20	

MSD Sample ID: **15041390-01AMSD** Units: **mg/Kg** Analysis Date: **4/27/2015 03:36 PM**
Client ID: **BCU 33-30-198 Cuttings** Run ID: **ICP2_150427A** SeqNo: **3244622** Prep Date: **4/23/2015** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	4002	0.65	6.485	3583	6470	75-125	3498	13.5	20	SO

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70218** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-70218-70218** Units: **µg/Kg** Analysis Date: **4/24/2015 04:45 PM**
Client ID: Run ID: **SVMS4_150424B** SeqNo: **3242399** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	*990*	0	*1667*	0	*59.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1719*	0	*1667*	0	*103*	*25-137*	0			
Surr: Nitrobenzene-d5	*982.7*	0	*1667*	0	*59*	*37-107*	0			

LCS Sample ID: **SLCSS1-70218-70218** Units: **µg/Kg** Analysis Date: **4/24/2015 05:11 PM**
Client ID: Run ID: **SVMS4_150424B** SeqNo: **3242400** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	498	6.7	666.7	0	74.7	45-110	0			
Anthracene	640	6.7	666.7	0	96	55-105	0			
Benzo(a)anthracene	645.7	6.7	666.7	0	96.8	50-110	0			
Benzo(a)pyrene	622	6.7	666.7	0	93.3	50-110	0			
Benzo(b)fluoranthene	622.7	6.7	666.7	0	93.4	45-115	0			
Benzo(g,h,i)perylene	745.3	6.7	666.7	0	112	40-125	0			
Benzo(k)fluoranthene	607.3	6.7	666.7	0	91.1	45-115	0			
Chrysene	625	6.7	666.7	0	93.7	55-110	0			
Dibenzo(a,h)anthracene	721.3	6.7	666.7	0	108	40-125	0			
Fluoranthene	702	6.7	666.7	0	105	55-115	0			
Fluorene	543.7	6.7	666.7	0	81.5	50-110	0			
Indeno(1,2,3-cd)pyrene	749.3	6.7	666.7	0	112	40-120	0			
Naphthalene	482.7	6.7	666.7	0	72.4	40-105	0			
Pyrene	730.7	6.7	666.7	0	110	45-125	0			
Surr: 2-Fluorobiphenyl	*1386*	0	*1667*	0	*83.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1918*	0	*1667*	0	*115*	*25-137*	0			
Surr: Nitrobenzene-d5	*1361*	0	*1667*	0	*81.6*	*37-107*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70218** Instrument ID **SVMS4** Method: **SW846 8270D**

MS Sample ID: **15041350-03A MS** Units: **µg/Kg** Analysis Date: **4/24/2015 06:05 PM**
Client ID: Run ID: **SVMS4_150424B** SeqNo: **3242401** Prep Date: **4/24/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1542	130	1312	0	117	45-110	0			S
Anthracene	1201	130	1312	123.9	82.1	55-105	0			
Benzo(a)anthracene	1726	130	1312	384.7	102	50-110	0			
Benzo(a)pyrene	1837	130	1312	489.1	103	50-110	0			
Benzo(b)fluoranthene	1909	130	1312	632.5	97.3	45-115	0			
Benzo(g,h,i)perylene	1647	130	1312	329.3	100	40-125	0			
Benzo(k)fluoranthene	1608	130	1312	313	98.6	45-115	0			
Chrysene	1483	130	1312	414.1	81.4	55-110	0			
Dibenzo(a,h)anthracene	1417	130	1312	0	108	40-125	0			
Fluoranthene	1981	130	1312	652.1	101	55-115	0			
Fluorene	1194	130	1312	0	91	50-110	0			
Indeno(1,2,3-cd)pyrene	1824	130	1312	427.1	106	40-120	0			
Naphthalene	1509	130	1312	446.7	81	40-105	0			
Pyrene	1785	130	1312	606.5	89.8	45-125	0			
Surr: 2-Fluorobiphenyl	*2808*	0	*3281*	0	*85.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3182*	0	*3281*	0	*97*	*25-137*	0			
Surr: Nitrobenzene-d5	*2611*	0	*3281*	0	*79.6*	*37-107*	0			

MSD Sample ID: **15041350-03A MSD** Units: **µg/Kg** Analysis Date: **4/24/2015 06:31 PM**
Client ID: Run ID: **SVMS4_150424B** SeqNo: **3242402** Prep Date: **4/24/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1464	130	1307	0	112	45-110	1542	5.17	30	S
Anthracene	1275	130	1307	123.9	88	55-105	1201	5.97	30	
Benzo(a)anthracene	1549	130	1307	384.7	89.1	50-110	1726	10.8	30	
Benzo(a)pyrene	1732	130	1307	489.1	95.1	50-110	1837	5.88	30	
Benzo(b)fluoranthene	1843	130	1307	632.5	92.6	45-115	1909	3.52	30	
Benzo(g,h,i)perylene	1582	130	1307	329.3	95.8	40-125	1647	4.03	30	
Benzo(k)fluoranthene	1438	130	1307	313	86.1	45-115	1608	11.1	30	
Chrysene	1392	130	1307	414.1	74.8	55-110	1483	6.3	30	
Dibenzo(a,h)anthracene	1373	130	1307	0	105	40-125	1417	3.2	30	
Fluoranthene	1778	130	1307	652.1	86.1	55-115	1981	10.8	30	
Fluorene	1092	130	1307	0	83.5	50-110	1194	8.98	30	
Indeno(1,2,3-cd)pyrene	1856	130	1307	427.1	109	40-120	1824	1.76	30	
Naphthalene	1386	130	1307	446.7	71.8	40-105	1509	8.52	30	
Pyrene	1726	130	1307	606.5	85.6	45-125	1785	3.36	30	
Surr: 2-Fluorobiphenyl	*2673*	0	*3268*	0	*81.8*	*12-100*	2808	*4.92*	*40*	
Surr: 4-Terphenyl-d14	*3170*	0	*3268*	0	*97*	*25-137*	3182	*0.38*	*40*	
Surr: Nitrobenzene-d5	*2235*	0	*3268*	0	*68.4*	*37-107*	2611	*15.5*	*40*	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70256** Instrument ID **VMS7** Method: **SW8260B**

MBLK Sample ID: **MBLK-70256-70256** Units: **µg/Kg** Analysis Date: **4/24/2015 11:32 AM**
Client ID: Run ID: **VMS7_150424A** SeqNo: **3243968** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	*1010*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1014*	0	*1000*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*958.5*	0	*1000*	0	*95.8*	*70-130*	0			
Surr: Toluene-d8	*991.5*	0	*1000*	0	*99.2*	*70-130*	0			

LCS Sample ID: **LCS-70256-70256** Units: **µg/Kg** Analysis Date: **4/24/2015 09:53 AM**
Client ID: Run ID: **VMS7_150424A** SeqNo: **3243967** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1060	30	1000	0	106	75-125	0			
Ethylbenzene	1070	30	1000	0	107	75-125	0			
m,p-Xylene	2104	60	2000	0	105	80-125	0			
o-Xylene	1046	30	1000	0	105	75-125	0			
Toluene	1042	30	1000	0	104	70-125	0			
Xylenes, Total	3150	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	*995.5*	0	*1000*	0	*99.6*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*995*	0	*1000*	0	*99.5*	*70-130*	0			
Surr: Dibromofluoromethane	*1012*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*1003*	0	*1000*	0	*100*	*70-130*	0			

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70150** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **15041394-02A DUP** Units: **mmhos/cm @25°** Analysis Date: **4/27/2015 04:15 PM**
Client ID: Run ID: **WETCHEM_150427M** SeqNo: **3244680** Prep Date: **4/27/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.59	0.050	0	0	0		3.87	7.51	50	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70204** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-70204-70204** Units: **s.u.** Analysis Date: **4/24/2015 11:30 AM**
Client ID: Run ID: **WETCHEM_150424A** SeqNo: **3240665** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.01	0	4	0	100	90-110	0			

DUP Sample ID: **15041302-01A DUP** Units: **s.u.** Analysis Date: **4/24/2015 11:30 AM**
Client ID: Run ID: **WETCHEM_150424A** SeqNo: **3240667** Prep Date: **4/23/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.83	0	0	0	0	0-0	7.72	1.41	20	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70353** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-70353-70353** Units: **mg/Kg** Analysis Date: **4/27/2015 03:30 PM**
Client ID: Run ID: **WETCHEM_150427L** SeqNo: **3244649** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0								

LCS Sample ID: **LCS-70353-70353** Units: **mg/Kg** Analysis Date: **4/27/2015 03:30 PM**
Client ID: Run ID: **WETCHEM_150427L** SeqNo: **3244650** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.26	1.0	5	0	85.2	80-120	0			

MS Sample ID: **15041352-09A MS** Units: **mg/Kg** Analysis Date: **4/27/2015 03:30 PM**
Client ID: Run ID: **WETCHEM_150427L** SeqNo: **3244658** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0	5	0.05426	-1.09	75-125	0			S

MS Sample ID: **15041352-09A MSI** Units: **mg/Kg** Analysis Date: **4/27/2015 03:30 PM**
Client ID: Run ID: **WETCHEM_150427L** SeqNo: **3244665** Prep Date: **4/24/2015** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2096	93	2667	0.05426	78.6	75-125	0			

MSD Sample ID: **15041352-09A MSD** Units: **mg/Kg** Analysis Date: **4/27/2015 03:30 PM**
Client ID: Run ID: **WETCHEM_150427L** SeqNo: **3244659** Prep Date: **4/24/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0	5	0.05426	-1.09	75-125	0.25	0	20	S

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041390
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **R162127** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R162127** Units: **% of sample** Analysis Date: **4/24/2015 02:04 PM**
Client ID: Run ID: **MOIST_150424A** SeqNo: **3243997** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS Sample ID: **LCS-R162127** Units: **% of sample** Analysis Date: **4/24/2015 02:04 PM**
Client ID: Run ID: **MOIST_150424A** SeqNo: **3243994** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **15041303-01A DUP** Units: **% of sample** Analysis Date: **4/24/2015 02:04 PM**
Client ID: Run ID: **MOIST_150424A** SeqNo: **3243984** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.79	0.050	0	0	0		12.44	2.77	20	

DUP Sample ID: **1504828-03B DUP** Units: **% of sample** Analysis Date: **4/24/2015 02:04 PM**
Client ID: Run ID: **MOIST_150424A** SeqNo: **3243991** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.44	0.050	0	0	0		3.98	10.9	20	

The following samples were analyzed in this batch: 15041390-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER # 1504139O

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	BCU 33-30-198 cuttings	SAMPLER	
PROJECT No.		SITE ID	TR 34-14-597 completions landfarm
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun
ADDRESS		ADDRESS	1058 Co Rd 215
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635
PHONE		PHONE	970-683-2295
FAX		FAX	
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com

DATE

TURNAROUND 3 day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	910-1
1	BCU 33-30-198 cuttings	S	4/22/2015	11:25	1			x

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

For metals or anions, please detail analytes below.

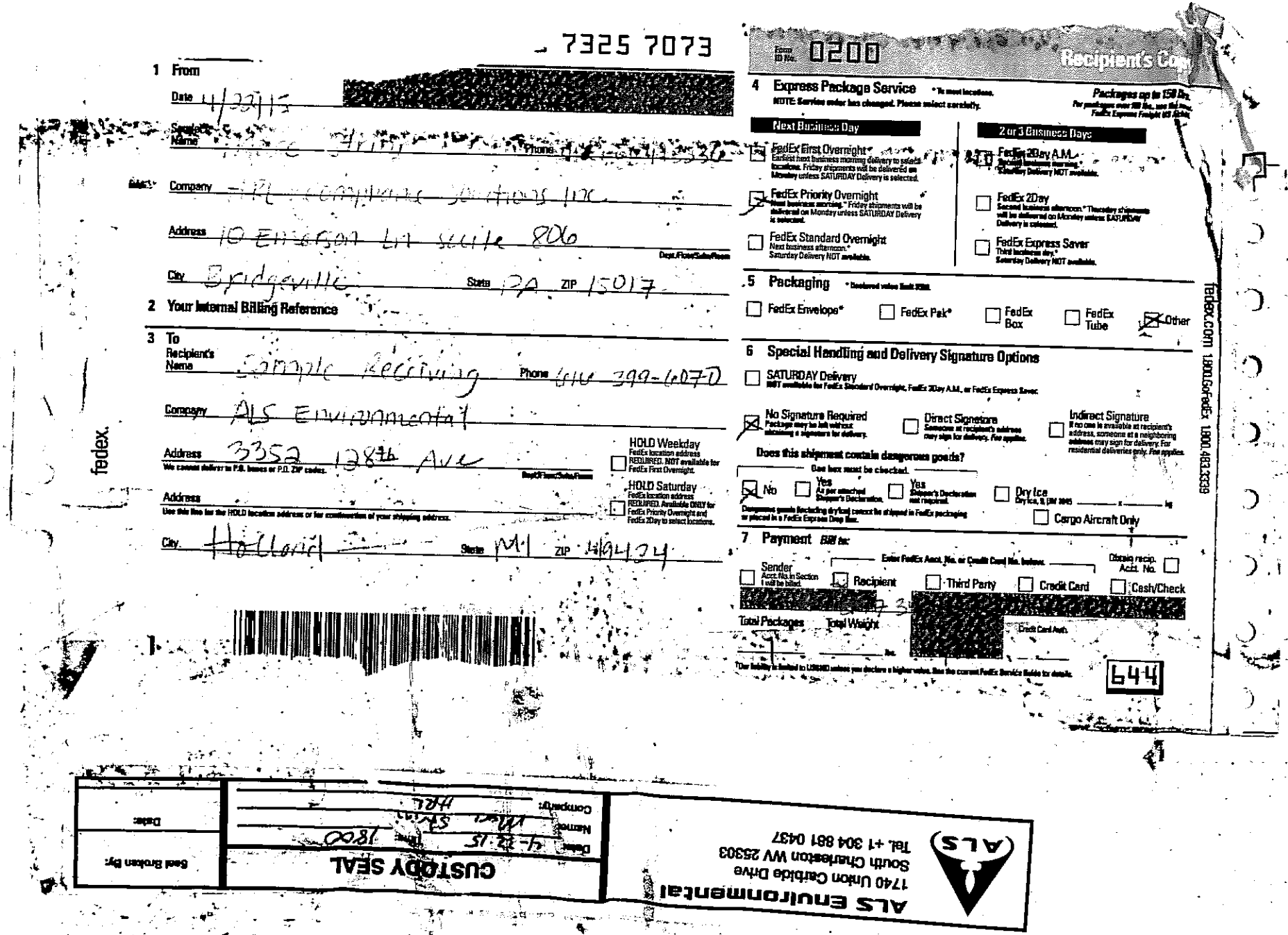
Comments:

@ 2.8c

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	4/22/2015	16:00
RECEIVED BY			4-22	1016
RELINQUISHED BY			4-22	1630
RECEIVED BY		JOSEPH R. BAR	4/23/15	10:00
RELINQUISHED BY				
RECEIVED BY				



7325 7073

Form ID No. 0200 — Recipient's Copy

1 From

Date 4/23/15

Sender's Name [redacted] Phone [redacted]

Company PL Engineering Solutions LLC

Address 10 Ellsworth Ln suite 806

Dept./Floor/Suite/Room

City Bridgeville State PA ZIP 15017

2 Your Internal Billing Reference

3 To

Recipient's Name Sample Receiving Phone (412) 399-6070

Company ALS Environmental

Address 3352 128th Ave

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Holland State MI ZIP 49424

HOLD Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

4 Express Package Service — To most locations. NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the Fed Ex Express Freight Ltr Bills.

Next Business Day

- [ ] FedEx First Overnight* — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging — Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No. [ ]

- [ ] Sender — Acct. No. in Section 1 will be billed
- [x] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages ____ Total Weight ____ lbs.

Credit Card Auth.

*Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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CUSTODY SEAL

Date: 4-22-15 Time: 1800

Name: [redacted]

Company: ALS

Date:

Sent Broken By:

ALS Environmental
1740 Union Carbide Drive
South Charleston WV 25303
Tel. +1 304 881 0437

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **23-Apr-15 10:00**

Work Order: **15041390** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 23-Apr-15 (Date) Reviewed by: Chad Whelton (eSignature) 23-Apr-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/23/2015 11:16:59 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

13-May-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **BCU 33-30-198 Cuttings** Work Order: **1505596**

Dear Karolina,

ALS Environmental received 1 sample on 12-May-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 13-May-15

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: **1505596**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1505596-01	BCU 33-30-198 Cuttings	Soil		5/11/2015 09:00	5/12/2015 09:30	☐

ALS Group USA, Corp

Date: 13-May-15

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
WorkOrder: **1505596**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: *13-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Cuttings
Work Order: 1505596
Sample ID: BCU 33-30-198 Cuttings
Lab ID: 1505596-01
Collection Date: 5/11/2015 09:00 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/12/15	Analyst: **IT**
DRO (C10-C28)	**230**		**4.6**	**mg/Kg-dry**	1	5/12/2015 06:42 PM
Surr: 4-Terphenyl-d14	*59.7*		*39-133*	*%REC*	1	5/12/2015 06:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 5/12/15	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/12/2015 05:15 PM
Surr: Toluene-d8	*128*		*50-150*	*%REC*	1	5/12/2015 05:15 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**11**		**0.050**	**% of sample**	1	5/12/2015 03:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 13-May-15

Client: WPX Energy Rocky Mountain, LLC

Work Order: 1505596

Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70969** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-70969-70969** Units: **mg/Kg** Analysis Date: **5/12/2015 04:43 PM**

Client ID: Run ID: **GC8_150512A** SeqNo: **3272621** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*1.56*	0	*2*	0	*78*	*39-133*	0			

LCS Sample ID: **DLCSS1-70969-70969** Units: **mg/Kg** Analysis Date: **5/12/2015 05:13 PM**

Client ID: Run ID: **GC8_150512A** SeqNo: **3272622** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	158.6	5.0	200	0	79.3	61-109	0			
Surr: 4-Terphenyl-d14	*1.363*	0	*2*	0	*68.1*	*39-133*	0			

MS Sample ID: **1505596-01A MS** Units: **mg/Kg** Analysis Date: **5/12/2015 05:42 PM**

Client ID: **BCU 33-30-198 Cuttings** Run ID: **GC8_150512A** SeqNo: **3272623** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	411.9	7.9	314	201.2	67.1	48-110	0			
Surr: 4-Terphenyl-d14	*4.062*	0	*3.14*	0	*129*	*39-133*	0			

MSD Sample ID: **1505596-01A MSD** Units: **mg/Kg** Analysis Date: **5/12/2015 06:12 PM**

Client ID: **BCU 33-30-198 Cuttings** Run ID: **GC8_150512A** SeqNo: **3272624** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	512.9	8.2	327.8	201.2	95.1	48-110	411.9	21.8	30	
Surr: 4-Terphenyl-d14	*5.358*	0	*3.278*	0	*163*	*39-133*	4.062	*27.5*	*30*	*S*

The following samples were analyzed in this batch: 1505596-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1505596
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **70973** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-70973-70973** Units: **µg/Kg** Analysis Date: **5/12/2015 04:50 PM**
Client ID: Run ID: **GC9_150512A** SeqNo: **3272703** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	*5231*	0	*5000*	0	*105*	*50-150*	0			

LCS Sample ID: **LCS-70973-70973** Units: **µg/Kg** Analysis Date: **5/12/2015 04:26 PM**
Client ID: Run ID: **GC9_150512A** SeqNo: **3272702** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	518000	2,500	500000	0	104	70-130	0			
Surr: Toluene-d8	*4504*	0	*5000*	0	*90.1*	*50-150*	0			

MS Sample ID: **1505597-01A MS** Units: **µg/Kg** Analysis Date: **5/12/2015 06:05 PM**
Client ID: Run ID: **GC9_150512A** SeqNo: **3272706** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	615800	2,500	500000	39510	115	70-130	0			
Surr: Toluene-d8	*5014*	0	*5000*	0	*100*	*50-150*	0			

MSD Sample ID: **1505597-01A MSD** Units: **µg/Kg** Analysis Date: **5/12/2015 06:29 PM**
Client ID: Run ID: **GC9_150512A** SeqNo: **3272707** Prep Date: **5/12/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	606900	2,500	500000	39510	113	70-130	615800	1.46	30	
Surr: Toluene-d8	*4816*	0	*5000*	0	*96.3*	*50-150*	5014	*4.05*	*30*	

The following samples were analyzed in this batch: 1505596-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1505596
Project: BCU 33-30-198 Cuttings

QC BATCH REPORT

Batch ID: **R163334** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R163334** Units: **% of sample** Analysis Date: **5/12/2015 03:57 PM**
Client ID: Run ID: **MOIST_150512B** SeqNo: **3273365** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R163334** Units: **% of sample** Analysis Date: **5/12/2015 03:57 PM**
Client ID: Run ID: **MOIST_150512B** SeqNo: **3273364** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1505098-01A DUP** Units: **% of sample** Analysis Date: **5/12/2015 03:57 PM**
Client ID: Run ID: **MOIST_150512B** SeqNo: **3273343** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.08	0.050	0	0	0		4.59	11.8	20	

DUP Sample ID: **1505105-02B DUP** Units: **% of sample** Analysis Date: **5/12/2015 03:57 PM**
Client ID: Run ID: **MOIST_150512B** SeqNo: **3273354** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.46	0.050	0	0	0		6.47	0.155	20	

The following samples were analyzed in this batch: 1505596-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

		SAMPLER		DATE	
PROJECT NAME	BCU 33-30-198 cuttings	SITE ID	BCU 33-30-198 cuttings	TURNAROUND	24 hrs
PROJECT No.		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy		
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun		
ADDRESS		ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635		
PHONE		PHONE	970-683-2295		
FAX		FAX			
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com		

WORKORDER # 1505596

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO + GRO
1	BCU 33-30-198 cuttings	S	5/11/2015	9:00	1		x	x

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

For metals or anions, please detail analytes below.

Comments: 4.2° @

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	5/11/2015	16:00:00 PM
RECEIVED BY	W.M	W.M	5-11-15	1630
RELINQUISHED BY	W.M	W.M	5-11-15	1630
RECEIVED BY		KEITH WERENKA	5/12/15	0930
RELINQUISHED BY				
RECEIVED BY				

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

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J151215022303uv

Ship Date: 11MAY15
ActWgt: 50.0 LB
CAD: 2264840/INET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 051115-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

TUE - 12 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7735 7675 0073
0201

XX HLMA

49424
MI-US
GRR

537J3/C918/EE4B

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

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

ALS Parachute Custo
Time 1700 Date
Name

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **12-May-15 09:30**

Work Order: **1505596** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 12-May-15 (Date) Reviewed by: Chad Whelton (eSignature) 12-May-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/12/2015 11:28:22 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

06-May-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **BCU 33-30-198 Backgrounds** Work Order: **15041698**

Dear Karolina,

ALS Environmental received 5 samples on 29-Apr-2015 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 06-May-15

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: **15041698**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15041698-01	BCU 33-30-198-B-1	Soil		4/27/2015 13:45	4/29/2015 10:00	☐
15041698-02	BCU 33-30-198-B-2	Soil		4/27/2015 13:50	4/29/2015 10:00	☐
15041698-03	BCU 33-30-198-B-3	Soil		4/27/2015 13:55	4/29/2015 10:00	☐
15041698-04	BCU 33-30-198-B-4	Soil		4/27/2015 14:00	4/29/2015 10:00	☐
15041698-05	BCU 33-30-198-B-5	Soil		4/27/2015 14:05	4/29/2015 10:00	☐

ALS Group USA, Corp

Date: 06-May-15

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *06-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: 15041698
Sample ID: BCU 33-30-198-B-1
Lab ID: 15041698-01
Collection Date: 4/27/2015 01:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/30/15	Analyst: **JEC**
Arsenic	**6.7**		**0.44**	**mg/Kg-dry**	1	4/30/2015 10:44 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**16**		**0.050**	**% of sample**	1	5/1/2015 04:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *06-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: 15041698
Sample ID: BCU 33-30-198-B-2
Lab ID: 15041698-02
Collection Date: 4/27/2015 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/30/15	Analyst: **JEC**
Arsenic	**4.8**		**0.44**	**mg/Kg-dry**	1	4/30/2015 10:51 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**21**		**0.050**	**% of sample**	1	5/1/2015 04:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *06-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: 15041698
Sample ID: BCU 33-30-198-B-3
Lab ID: 15041698-03
Collection Date: 4/27/2015 01:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/30/15	Analyst: **JEC**
Arsenic	**3.7**		**0.45**	**mg/Kg-dry**	1	4/30/2015 10:57 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**18**		**0.050**	**% of sample**	1	5/1/2015 04:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *06-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: 15041698
Sample ID: BCU 33-30-198-B-4
Lab ID: 15041698-04
Collection Date: 4/27/2015 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/30/15	Analyst: **JEC**
Arsenic	**5.7**		**0.45**	**mg/Kg-dry**	1	4/30/2015 11:03 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**18**		**0.050**	**% of sample**	1	5/1/2015 04:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *06-May-15*

Client: WPX Energy Rocky Mountain, LLC
Project: BCU 33-30-198 Backgrounds
Work Order: 15041698
Sample ID: BCU 33-30-198-B-5
Lab ID: 15041698-05
Collection Date: 4/27/2015 02:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 4/30/15	Analyst: **JEC**
Arsenic	**4.4**		**0.41**	**mg/Kg-dry**	1	4/30/2015 11:10 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 5/4/15	Analyst: **JEC**
Calcium	**110**		**5.0**	**mg/L**	10	5/5/2015 10:54 AM
Magnesium	**15**		**2.0**	**mg/L**	10	5/5/2015 10:54 AM
Sodium	**9.9**		**2.0**	**mg/L**	10	5/5/2015 10:54 AM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 5/4/15	Analyst: **JEC**
Sodium Adsorption Ratio	**0.23**		**0.010**	**none**	1	5/5/2015
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 5/4/15	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.74**		**0.050**	**mmhos/cm @2**	10	5/4/2015 05:00 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**18**		**0.050**	**% of sample**	1	5/1/2015 04:40 PM
PH			**SW9045D**		Prep: EXTRACT / 4/30/15	Analyst: **KF**
pH	**8.4**			**s.u.**	1	4/30/2015 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: WPX Energy Rocky Mountain, LLC

QC BATCH REPORT

Work Order: 15041698

Project: BCU 33-30-198 Backgrounds

Batch ID: **70463** Instrument ID **ICP2** Method: **SW846 6010C**

DUP Sample ID: **15041733-01BDUP** Units: **mg/L** Analysis Date: **5/5/2015 11:22 AM**

Client ID: Run ID: **ICP2_150505A** SeqNo: **3258409** Prep Date: **5/4/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	184.8	5.0	0	0	0	0-0	0			
Magnesium	70.14	2.0	0	0	0	0-0	0			
Sodium	270.3	2.0	0	0	0	0-0	0			

DUP Sample ID: **15041733-01BDUP** Units: **none** Analysis Date: **5/5/2015**

Client ID: Run ID: **SAR_150505A** SeqNo: **3258557** Prep Date: **5/4/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	4.294	0.010	0	0	0		4.404	2.54	50	

The following samples were analyzed in this batch: 15041698-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041698
Project: BCU 33-30-198 Backgrounds

QC BATCH REPORT

Batch ID: **70498** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK	Sample ID: **MBLK-70498-70498**				Units: **mg/L**			Analysis Date: **4/30/2015 10:33 PM**		
Client ID:	Run ID: **ICP2_150430A**				SeqNo: **3252145**			Prep Date: **4/30/2015**		DF: **1**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS	Sample ID: **LCS-70498-70498**				Units: **mg/L**			Analysis Date: **4/30/2015 10:39 PM**		
Client ID:	Run ID: **ICP2_150430A**				SeqNo: **3252146**			Prep Date: **4/30/2015**		DF: **1**
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.893	0.25	5	0	97.9	80-120	0			

The following samples were analyzed in this batch:

15041698-01A	15041698-02A	15041698-03A
15041698-04A	15041698-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041698
Project: BCU 33-30-198 Backgrounds

QC BATCH REPORT

Batch ID: **70463** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **15041733-01B DUP** Units: **mmhos/cm @25°** Analysis Date: **5/4/2015 05:00 PM**
Client ID: Run ID: **WETCHEM_150504Q** SeqNo: **3256395** Prep Date: **5/4/2015** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.13	0.050	0	0	0		3.08	1.61	50	

The following samples were analyzed in this batch: 15041698-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041698
Project: BCU 33-30-198 Backgrounds

QC BATCH REPORT

Batch ID: **70496** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-70496-70496** Units: **s.u.** Analysis Date: **4/30/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150430E** SeqNo: **3250519** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.03	0	4	0	101	90-110	0			

DUP Sample ID: **15041475-01B DUP** Units: **s.u.** Analysis Date: **4/30/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150430E** SeqNo: **3250521** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.23	0	0	0	0	0-0	6.13	1.62	20	

DUP Sample ID: **15041729-04A DUP** Units: **s.u.** Analysis Date: **4/30/2015 12:00 PM**
Client ID: Run ID: **WETCHEM_150430E** SeqNo: **3250528** Prep Date: **4/30/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.88	0	0	0	0	0-0	7.92	0.506	20	

The following samples were analyzed in this batch: 15041698-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15041698
Project: BCU 33-30-198 Backgrounds

QC BATCH REPORT

Batch ID: **R162605** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R162605** Units: **% of sample** Analysis Date: **5/1/2015 04:40 PM**
Client ID: Run ID: **MOIST_150501A** SeqNo: **3255743** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS Sample ID: **LCS-R162605** Units: **% of sample** Analysis Date: **5/1/2015 04:40 PM**
Client ID: Run ID: **MOIST_150501A** SeqNo: **3255742** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **15041704-01C DUP** Units: **% of sample** Analysis Date: **5/1/2015 04:40 PM**
Client ID: Run ID: **MOIST_150501A** SeqNo: **3255727** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.43	0.050	0	0	0		13.22	6.16	20	

DUP Sample ID: **1505035-01A DUP** Units: **% of sample** Analysis Date: **5/1/2015 04:40 PM**
Client ID: Run ID: **MOIST_150501A** SeqNo: **3255740** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.09	0.050	0	0	0		14.51	2.94	20	

The following samples were analyzed in this batch:

15041698-01A	15041698-02A	15041698-03A
15041698-04A	15041698-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER #	1541698				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				
TURNAROUND	5 day				
DATE					
SAMPLER					
PROJECT NAME	BCU 33-30-198 backgrounds	SITE ID	BCU 33-30-198 backgrounds		
PROJECT No.		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy		
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun		
ADDRESS		ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635		
PHONE		PHONE	970-683-2295		
FAX		FAX			
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Arsenic	pH, SAR, EC
	BCU 33-30-198-B-1	S	4/27/2015	13:45	1		x	x	
	BCU 33-30-198-B-2	S	4/27/2015	13:50	1		x	x	
	BCU 33-30-198-B-3	S	4/27/2015	13:55	1		x	x	
	BCU 33-30-198-B-4	S	4/27/2015	14:00	1		x	x	
	BCU 33-30-198-B-5	S	4/27/2015	14:05	1		x	x	x

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

For metals or anions, please detail analytes below.

Comments:		QC PACKAGE (check below)
@	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
3,4C		

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	4/28/2015	12:45
RECEIVED BY		N.M	4-28-15	1250
RELINQUISHED BY		N.M	4-28-15	1255
RECEIVED BY	T.B. Beamish	T.B. Beamish	04/29/15	1000
RELINQUISHED BY				
RECEIVED BY				

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

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J151215022303uv

Ship Date: 28APR15
ActWgt: 64.0 LB
CAD: 2264840/INET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 042815-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

1 of 3

TRK# 0201 7734 7969 1618

MASTER

XX HLMA

WED - 29 APR 10:30A
PRIORITY OVERNIGHT

49424
MI-US
GRR

537J1/25E2/EE48

After printing this label:
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ALS Parachute Custody Seal
Time 1700 Date 4-28-15
Name [illegible]

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **29-Apr-15 10:00**

Work Order: **15041698** Received by: **TBB**

Checklist completed by Joseph Ribar eSignature 29-Apr-15 Date Reviewed by: Chad Whelton eSignature 29-Apr-15 Date

Matrices: soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4C	sr2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/29/2015 11:29:10 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: