



02231313

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



RECEIVED NOV 28 2012 COGCC

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 10079 4. Contact Name: Cole Kilstrom
2. Name of Operator: Antero Resources Piceance Corporation
3. Address: 1625 17th St STE 300 ATTN: Cole Kilstrom
5. API Number: 05-045-17109 OGCC Facility ID Number: 298264
6. Well/Facility Name: Robinson 7. Well/Facility Number: C10
8. Location (Qtr/Clr, Sec, Twp, Rng, Meridian): SENE 17 6S 92W 6
9. County: Garfield 10. Field Name: Mamm Creek
11. Federal, Indian or State Lease Number:
Survey Plat, Directional Survey, Surface Eqpm Diagram, Technical Info Page, Other

Complete the Attachment Checklist

OP OGCC

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/Clr is substantive and requires a new permit)
CHANGE SPACING UNIT: Formation, Formation Code, Spacing order number, Unit Acreage, Unit configuration
CHANGE OF OPERATOR (prior to drilling): Effective Date, Plugging Bond
CHANGE WELL NAME: From, To, Effective Date
ABANDONED LOCATION: Was location ever built, Is site ready for inspection?
NOTICE OF CONTINUED SHUT IN STATUS: Date well shut in or temporarily abandoned, Has Production Equipment been removed from site?
SPUD DATE, REQUEST FOR CONFIDENTIAL STATUS
SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK: Method used, Cementing tool setting/perf depth, Cement volume, Cement top, Cement bottom, Date
RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1804.

Technical Engineering/Environmental Notice

Notice of Intent: Approximate Start Date, Report of Work Done: Date Work Completed
Intent to Recomplete (submit form 2), Change Drilling Plans, Gross Interval Changed?, Casing/Cementing Program Change
Request to Vent or Flare, Repair Well, Rule 502 variance requested, Other
E&P Waste Disposal, Beneficial Reuse of E&P Waste, Status Update/Change of Remediation Plans for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Cole Kilstrom Date: 11/19/12
Print Name: Cole Kilstrom Title: ENV list

COGCC Approved: [Signature] Title: Env. Super Date: 12/19/12

CONDITIONS OF APPROVAL, IF ANY:

See Attached Comments.

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 10079	API Number: 05-045-10079
2. Name of Operator: Antero Resources Piceance Corp.	OGCC Facility ID #: 298264
3. Well/Facility Name: Robinson	Well/Facility Number: C10
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENE 17 6S 92W 6	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Summary of Corrective Actions and Request for Spill Report Closure:

On February 27, 2012, approximately 25 bbls of produced water released due to a hose malfunction at Antero's Robinson C10 well during hydraulic fracturing operations. Antero immediately shut the valves on the blending unit (connected to the hose), and dispatched vacuum trucks within the hour, which recovered all of the 25 bbls of released water.

COGCC Form 19 Spill Report # 2223316 pertaining to Antero's Robinson C pad in Garfield County stated that Antero would take soil samples from the affected area following the completion of hydraulic fracturing operations to ensure that no contamination occurred.

Antero's contractor collected samples on May 31, 2012, and returned its results on June 14, 2012. The results, also included here, demonstrated that the site was in compliance with COGCC Table 910-1 standards for organic compounds in soil.

Because Antero performed immediate corrective action on the site, and subsequent sampling demonstrated site compliance with COGCC soil standards, Antero respectfully requests final COGCC closure of Spill Report # 2223316 in accordance with COGCC Rule 909(e).

COA :

Based on review of data presented, it appears that no further action is necessary at this time at this site. However, should future conditions at the site be discovered of contaminant concentrations in soils exceeding COGCC standards or if groundwater is found to be significantly impacted, COGCC may require that further investigation and/or remediation be conducted.



14-Jun-2012

Mark Mumby
HRL Compliance Solutions
744 Horizon Ct. Suite 140
Grand Junction, CO 81506

Re: Antero Robinson C Pad 11-235 5/31/12

Work Order: 1206191

Dear Mark,

ALS Environmental received 4 samples on 06-Jun-2012 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.

QC sample results for this data met 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 27.

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

Sincerely,

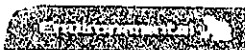
Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN331938

ADDRESS 3352 128th Avenue Holland, Michigan 49424-0263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP. Part of the ALS Group - A Campbell Brothers Limited Company



www.alsglobal.com

RIGHT SOLUTIONS. TRUST. PROTECT. PREVENT.

Client: HRL Compliance Solutions
Project: Antero Robinson C Pad 11-235 5/31/12
Work Order: 1206191

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1206191-01	Robinson C Pad	Soil		5/31/2012 12:00	6/6/2012 10:00	<input type="checkbox"/>
1206191-02	Robinson C BKGD 1	Soil		5/31/2012 12:15	6/6/2012 10:00	<input type="checkbox"/>
1206191-03	Robinson C BKGD 2	Soil		5/31/2012 12:20	6/6/2012 10:00	<input type="checkbox"/>
1206191-04	Robinson C BKGD 3	Soil		5/31/2012 12:30	6/6/2012 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: Antero Robinson C Pad 11-235 5/31/12
Work Order: 1206191

Case Narrative

Batch 41545 sample Robinson C Pad RPD between the MS/MSD recoveries for the DRO surrogate, 4-Terphenyl-d14, was above control limits. The individual MS/MSD recoveries met quality control criteria.

Batch 41524 MS/MSD data for Metals is not related to this project's samples.

Batch 4156 MS/MSD data for Hexavalent Chromium is not related to this project's samples.

Batch R105704 samples 1206191-01 and 1206191-04 were received after the hold time for pH had expired. Results should be considered estimated.

Client: HRL Compliance Solutions
 Project: Antero Robinson C Pad 11-235 5/31/12
 WorkOrder: 1206191

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	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 detected below quantitation 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

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
SD	Serial Dilution
TDL	Target Detection Limit

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry as noted	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions
 Project: Antero Robinson C Pad 11-235 5/31/12
 Sample ID: Robinson C Pad
 Collection Date: 5/31/2012 12:00 PM

Work Order: 1206191
 Lab ID: 1206191-01
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	ND		SW8015M	4.8 mg/Kg-dry	1	6/12/2012 07:22 PM
<i>Surr: 4-Terphenyl-d14</i>	78.8		39-115	%REC	1	6/12/2012 07:22 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015	2.9 mg/Kg-dry	50	6/8/2012 07:59 PM
<i>Surr: Toluene-d8</i>	102		50-150	%REC	50	6/8/2012 07:59 PM
MERCURY BY CVAA						
Mercury	0.021		SW7471	0.018 mg/Kg-dry	1	6/12/2012 03:10 PM
METALS BY ICP-MS						
Arsenic	4.6		SW6020A	0.70 mg/Kg-dry	2	6/12/2012 12:14 PM
Barium	220		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Cadmium	ND		0.28	mg/Kg-dry	2	6/12/2012 12:14 PM
Chromium	20		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Copper	12		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Lead	12		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Nickel	15		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Selenium	1.3		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Silver	ND		0.70	mg/Kg-dry	2	6/12/2012 12:14 PM
Zinc	46		1.4	mg/Kg-dry	2	6/12/2012 12:14 PM
SUBCONTRACTED ANALYSES						
Subcontracted Analyses		Rcvd 6/12/12	SUBCONTRACT	as noted	1	Analyst: A&LGL 6/12/2012
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270	17 µg/Kg-dry	1	6/11/2012 08:02 PM
Anthracene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
Benzo(a)anthracene	ND		23	µg/Kg-dry	1	6/11/2012 08:02 PM
Benzo(a)pyrene	ND		23	µg/Kg-dry	1	6/11/2012 08:02 PM
Benzo(b)fluoranthene	ND		23	µg/Kg-dry	1	6/11/2012 08:02 PM
Benzo(g,h,i)perylene	ND		35	µg/Kg-dry	1	6/11/2012 08:02 PM
Benzo(k)fluoranthene	ND		35	µg/Kg-dry	1	6/11/2012 08:02 PM
Chrysene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	6/11/2012 08:02 PM
Fluoranthene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
Fluorene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	6/11/2012 08:02 PM
Naphthalene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
Pyrene	ND		17	µg/Kg-dry	1	6/11/2012 08:02 PM
<i>Surr: 2-Fluorobiphenyl</i>	56.4		12-100	%REC	1	6/11/2012 08:02 PM

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

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions
 Project: Antero Robinson C Pad 11-235 5/31/12
 Sample ID: Robinson C Pad
 Collection Date: 5/31/2012 12:00 PM
 Work Order: 1206191
 Lab ID: 1206191-01
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Terphenyl-d14	86.7		25-137	%REC	1	6/11/2012 08:02 PM
Surr: Nitrobenzene-d5	65.3		37-107	%REC	1	6/11/2012 08:02 PM
VOLATILE ORGANIC COMPOUNDS			SW8260		Prep Date: 6/11/2012	Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	6/12/2012 04:32 AM
Ethylbenzene	ND		35	µg/Kg-dry	1	6/12/2012 04:32 AM
m,p-Xylene	ND		70	µg/Kg-dry	1	6/12/2012 04:32 AM
o-Xylene	ND		35	µg/Kg-dry	1	6/12/2012 04:32 AM
Toluene	ND		35	µg/Kg-dry	1	6/12/2012 04:32 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/12/2012 04:32 AM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	6/12/2012 04:32 AM
Surr: 4-Bromofluorobenzene	94.7		70-130	%REC	1	6/12/2012 04:32 AM
Surr: Dibromofluoromethane	93.7		70-130	%REC	1	6/12/2012 04:32 AM
Surr: Toluene-d8	111		70-130	%REC	1	6/12/2012 04:32 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJJ
Chromium, Trivalent	20		0.58	mg/Kg-dry	1	6/13/2012 02:27 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 6/7/2012	Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	6/11/2012 02:00 PM
MOISTURE			A2540 G			Analyst: CG
Moisture	14		0.050	% of sample	1	6/7/2012 02:47 PM
PH			SW9045D			Analyst: KV
pH	9.60	H		s.u.	1	6/7/2012 06:30 PM

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

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions
Project: Antero Robinson C Pad 11-235 5/31/12
Sample ID: Robinson C BKGD 1
Collection Date: 5/31/2012 12:15 PM

Work Order: 1206191
Lab ID: 1206191-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 6/8/2012	Analyst: ML
Arsenic	3.2		0.60	mg/Kg-dry	2	6/12/2012 12:20 PM
MOISTURE			A2540 G			Analyst: CG
Moisture	1.7		0.050	% of sample	1	6/7/2012 02:47 PM

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

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions

Project: Antero Robinson C Pad 11-235 5/31/12

Work Order: 1206191

Sample ID: Robinson C BKGD 2

Lab ID: 1206191-03

Collection Date: 5/31/2012 12:20 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 6/8/2012	Analyst: ML
Arsenic	2.7		0.57	mg/Kg-dry	2	6/12/2012 12:41 PM
MOISTURE			A2540 G			Analyst: CG
Moisture	0.69		0.050	% of sample	1	8/7/2012 02:47 PM

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

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions

Project: Antero Robinson C Pad 11-235 5/31/12

Work Order: 1206191

Sample ID: Robinson C BKGD 3

Lab ID: 1206191-04

Collection Date: 5/31/2012 12:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 6/8/2012	Analyst: ML
Arsenic	2.8		0.62	mg/Kg-dry	2	6/8/2012 09:26 PM
SUBCONTRACTED ANALYSES			SUBCONTRACT			Analyst: A&LGL
Subcontracted Analyses	Rcvd 6/12/12		as noted		1	6/12/2012
MOISTURE			A2540 G			Analyst: CG
Moisture	0.76		0.050	% of sample	1	6/7/2012 02:47 PM
PH			SW9045D			Analyst: KV
pH	7.19	H		s.u.	1	6/7/2012 06:30 PM

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

Report Number: F12163-0202

Account Number: 91000

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274

www.algreatlakes.com • lab@algreatlakes.com



QUALITY ANALYSES FOR INFORMED DECISIONS

TO: ALS LABORATORY GROUP
3352 128TH AVE
HOLLAND, MI 49424-9263

RE: 1206191-01C & 04C

DATE RECEIVED: 06/11/2012

DATE REPORTED: 06/12/2012

PAGE: 1

P.O. NUMBER: 20-1206191

ATTN: ANN PRESTON

REPORT OF ANALYSIS

LAB NO	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
24531	ROBINSON C PAD	Sat'd Paste Extraction with DIW			USDA Handbook 60
		Conductivity (ECe)	0.85	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	24	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	8	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	662	ppm	USDA Handbook 60
		Sodium Adsorption Ratio (SAR)	29.8	-	USDA Handbook 60
24532	ROBINSON C BKGD 3	Sat'd Paste Extraction with DIW			USDA Handbook 60
		Conductivity (ECe)	0.52	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	43	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	20	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	89	ppm	USDA Handbook 60
		Sodium Adsorption Ratio (SAR)	2.8	-	USDA Handbook 60

ALS Group USA, Corp

Date: 14-Jun-12

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41545 Instrument ID GC8 Method: SW8015M

MBLK		Sample ID: DBLK91-41545-41545			Units: mg/Kg		Analysis Date: 6/12/2012 06:30 PM			
Client ID:		Run ID: GC8_120612A			SeqNo: 1997997		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.778	0	1.667	0	107	39-115	0			

LCS		Sample ID: DLCSS1-41545-41545			Units: mg/Kg		Analysis Date: 6/12/2012 06:30 PM			
Client ID:		Run ID: GC8_120612A			SeqNo: 1998019		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	109.2	4.2	166.7	0	65.5	60-130	0			
Surr: 4-Terphenyl-d14	0.719	0	1.667	0	43.1	39-115	0			

MS		Sample ID: 1206191-01B MS			Units: mg/Kg		Analysis Date: 6/12/2012 06:56 PM			
Client ID: Robinson C Pad		Run ID: GC8_120612A			SeqNo: 1998021		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	217.4	8.1	324.9	3.319	65.9	60-130	0			
Surr: 4-Terphenyl-d14	1.777	0	3.249	0	54.7	39-115	0			

MSD		Sample ID: 1206191-01B MSD			Units: mg/Kg		Analysis Date: 6/12/2012 06:56 PM			
Client ID: Robinson C Pad		Run ID: GC8_120612A			SeqNo: 1997998		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	215.7	8.2	329.7	3.319	64.4	60-130	217.4	0.771	30	
Surr: 4-Terphenyl-d14	3.495	0	3.297	0	106	39-115	1.777	65.2	30	R

The following samples were analyzed in this batch: | 1206191-01B |

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: R105802 Instrument ID GC10 Method: SW8015

MBLK	Sample ID: MBLK-R105802-R105802	Units: µg/L					Analysis Date: 6/8/2012 10:20 AM			
Client ID:	Run ID: GC10_120608A	SeqNo: 1995656	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	107.9	0	100	0	108	70-130		0		

LCS	Sample ID: LCS-R105802-R105802	Units: µg/L					Analysis Date: 6/8/2012 09:29 AM			
Client ID:	Run ID: GC10_120608A	SeqNo: 1995654	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	22410	200	25000	0	89.6	70-130		0		
<i>Surr: Toluene-d8</i>	98.15	0	100	0	98.2	70-130		0		

MS	Sample ID: 1206066-09A MS	Units: µg/Kg					Analysis Date: 6/8/2012 08:24 PM			
Client ID:	Run ID: GC10_120608A	SeqNo: 1995676	Prep Date:	DF: 50						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1448000	2,500	1250000	20680	114	70-130		0		
<i>Surr: Toluene-d8</i>	4862	0	5000	0	97.2	50-150		0		

MSD	Sample ID: 1206066-09A MSD	Units: µg/Kg					Analysis Date: 6/8/2012 08:50 PM			
Client ID:	Run ID: GC10_120608A	SeqNo: 1995677	Prep Date:	DF: 50						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1380000	2,500	1250000	20680	109	70-130	1448000	4.86	30	
<i>Surr: Toluene-d8</i>	4844	0	5000	0	96.9	50-150	4862	0.371	30	

The following samples were analyzed in this batch: 1206191-01A

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41555 Instrument ID HG1 Method: SW7471

MBLK	Sample ID: MBLK-41555-41555			Units: mg/Kg	Analysis Date: 6/12/2012 02:41 PM					
Client ID:		Run ID: HG1_120612A		SeqNo: 1996779	Prep Date: 6/12/2012	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.003417	0.020								J

LCS	Sample ID: LCS-41555-41555			Units: mg/Kg	Analysis Date: 6/13/2012 10:30 AM					
Client ID:		Run ID: HG1_120613A		SeqNo: 1997519	Prep Date: 6/12/2012	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1829	0.020	0.1665	0	110	80-120	0			

MS	Sample ID: 1206197-03AMS			Units: mg/Kg	Analysis Date: 6/13/2012 01:16 PM					
Client ID:		Run ID: HG1_120613A		SeqNo: 1998036	Prep Date: 6/12/2012	DF: 2				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.4068	0.034	0.1417	0.2639	101	75-125	0			

MSD	Sample ID: 1206197-03AMSD			Units: mg/Kg	Analysis Date: 6/13/2012 01:19 PM					
Client ID:		Run ID: HG1_120613A		SeqNo: 1998039	Prep Date: 6/12/2012	DF: 2				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.3857	0.034	0.1405	0.2639	86.7	75-125	0.4068	5.34	35	

The following samples were analyzed in this batch: 1206191-01B

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41524 Instrument ID ICPMS1 Method: SW6020A

MBLK		Sample ID: MBLK-41524-41524		Units: mg/Kg		Analysis Date: 6/8/2012 04:43 PM				
Client ID:		Run ID: ICPMS1_120608A		SeqNo: 1994711		Prep Date: 6/8/2012		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01551	0.25								J
Cadmium	0.001278	0.10								J
Chromium	0.01277	0.25								J
Copper	0.07915	0.25								J
Lead	ND	0.25								
Nickel	0.01249	0.25								J
Selenium	0.05485	0.25								J
Silver	ND	0.25								
Zinc	0.03422	0.50								J

LCS		Sample ID: LCS-41524-41524		Units: mg/Kg		Analysis Date: 6/8/2012 04:50 PM				
Client ID:		Run ID: ICPMS1_120608A		SeqNo: 1994712		Prep Date: 6/8/2012		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.198	0.25	5	0	84	80-120	0			
Barium	4.664	0.25	5	0	93.3	80-120	0			
Cadmium	4.695	0.10	5	0	93.9	80-120	0			
Chromium	4.254	0.25	5	0	85.1	80-120	0			
Copper	4.187	0.25	5	0	83.3	80-120	0			
Lead	4.418	0.25	5	0	88.4	80-120	0			
Nickel	4.166	0.25	5	0	83.3	80-120	0			
Selenium	4.078	0.25	5	0	81.8	80-120	0			
Silver	4.26	0.25	5	0	85.2	80-120	0			
Zinc	4.089	0.50	5	0	81.8	80-120	0			

MS		Sample ID: 1206178-05AMS		Units: mg/Kg		Analysis Date: 6/12/2012 11:44 AM				
Client ID:		Run ID: ICPMS1_120612A		SeqNo: 1996424		Prep Date: 6/8/2012		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.4	1.2	6.01	13.39	33.4	80-120	0			S
Barium	98.83	1.2	6.01	121.3	-377	80-120	0			SO
Cadmium	5.731	0.48	6.01	1.368	72.6	80-120	0			S
Chromium	16.04	1.2	6.01	14.09	32.5	80-120	0			S
Copper	10.64	1.2	6.01	7.827	46.8	80-120	0			S
Lead	24.16	1.2	6.01	24.05	1.87	80-120	0			SO
Nickel	11.76	1.2	6.01	9.032	45.5	80-120	0			S
Selenium	5.447	1.2	6.01	1.146	71.6	80-120	0			S
Silver	4.312	1.2	6.01	0.1316	69.6	80-120	0			S
Zinc	63.27	2.4	6.01	71.43	-136	80-120	0			SO

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41524 Instrument ID ICPMS1 Method: SW6020A

MSD	Sample ID: 1206178-05AMSD	Units: mg/Kg					Analysis Date: 6/12/2012 11:50 AM				
Client ID:	Run ID: ICPMS1_120612A	SeqNo: 1998457			Prep Date: 6/8/2012		DF: 4				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	17.1	1.3	6.729	13.39	55.1	80-120	15.4	10.5	25	S	
Barium	112.8	1.3	6.729	121.3	-127	80-120	98.63	13.4	25	SO	
Cadmium	6.81	0.54	6.729	1.368	80.9	80-120	5.731	17.2	25		
Chromium	18.01	1.3	6.729	14.09	58.4	80-120	16.04	11.6	25	S	
Copper	12.09	1.3	6.729	7.827	63.4	80-120	10.64	12.8	25	S	
Lead	27.32	1.3	6.729	24.05	48.7	80-120	24.16	12.3	25	S	
Nickel	13.56	1.3	6.729	9.032	67.3	80-120	11.76	14.2	25	S	
Selenium	6.353	1.3	6.729	1.146	77.4	80-120	5.447	15.3	25	S	
Silver	5.227	1.3	6.729	0.1316	75.7	80-120	4.312	19.2	25	S	
Zinc	69.37	2.7	6.729	71.43	-30.7	80-120	63.27	9.2	25	SO	

The following samples were analyzed in this batch:

1206191-01B	1206191-02A	1206191-03A
1206191-04A		

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41544 Instrument ID SVMS7 Method: SW8270

MBLK		Sample ID: SBLKS1-41544-41544			Units: µg/Kg		Analysis Date: 6/11/2012 06:02 PM			
Client ID:		Run ID: SVMS7_120611A			SeqNo: 1996574		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
Sum: 2-Fluorobiphenyl	1009	0	1667	0	60.6	12-100	0			
Sum: 4-Terphenyl-d14	1496	0	1667	0	89.7	25-137	0			
Sum: Nitrobenzene-d5	1231	0	1667	0	73.9	37-107	0			

LCS		Sample ID: SLCSS1-41544-41544			Units: µg/Kg		Analysis Date: 6/11/2012 06:32 PM			
Client ID:		Run ID: SVMS7_120611A			SeqNo: 1996575		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	550.7	30	666.7	0	82.6	45-110	0			
Anthracene	579	30	666.7	0	86.8	55-105	0			
Benzo(a)anthracene	575	30	666.7	0	86.2	50-110	0			
Benzo(a)pyrene	582	30	666.7	0	87.3	50-110	0			
Benzo(b)fluoranthene	582	30	666.7	0	87.3	45-115	0			
Benzo(g,h,i)perylene	605.3	30	666.7	0	90.8	40-125	0			
Benzo(k)fluoranthene	620.7	30	666.7	0	93.1	45-115	0			
Chrysene	598	30	666.7	0	89.7	55-110	0			
Dibenzo(a,h)anthracene	575.7	30	666.7	0	86.3	40-125	0			
Fluoranthene	630.7	30	666.7	0	94.6	55-115	0			
Fluorene	582	30	666.7	0	87.3	50-110	0			
Indeno(1,2,3-cd)pyrene	579	30	666.7	0	86.8	40-120	0			
Naphthalene	551.3	30	666.7	0	82.7	40-105	0			
Pyrene	624	30	666.7	0	93.6	45-125	0			
Sum: 2-Fluorobiphenyl	1025	0	1667	0	61.5	12-100	0			
Sum: 4-Terphenyl-d14	1489	0	1667	0	89.3	25-137	0			
Sum: Nitrobenzene-d5	1211	0	1667	0	72.7	37-107	0			

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41544 Instrument ID SVMS7 Method: SW8270

MS		Sample ID: 1206191-01B MS			Units: µg/Kg		Analysis Date: 6/11/2012 07:02 PM			
Client ID: Robinson C Pad		Run ID: SVMS7_120611A			SeqNo: 1996576		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1138	57	1268	0	89.7	45-110	0			
Anthracene	1222	57	1268	0	96.3	55-105	0			
Benzo(a)anthracene	1202	57	1268	0	94.8	50-110	0			
Benzo(a)pyrene	1243	57	1268	0	98	50-110	0			
Benzo(b)fluoranthene	1260	57	1268	0	99.4	45-115	0			
Benzo(g,h,i)perylene	1297	57	1268	0	102	40-125	0			
Benzo(k)fluoranthene	1229	57	1268	0	96.9	45-115	0			
Chrysene	1226	57	1268	0	96.7	55-110	0			
Dibenzo(a,h)anthracene	1210	57	1268	0	95.4	40-125	0			
Fluoranthene	1276	57	1268	0	101	55-115	0			
Fluorene	1229	57	1268	0	96.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1232	57	1268	0	97.1	40-120	0			
Naphthalene	1081	57	1268	0	85.2	40-105	0			
Pyrene	1279	57	1268	0	101	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1883	0	3170	0	59.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	3004	0	3170	0	94.8	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2266	0	3170	0	71.5	37-107	0			

MSD		Sample ID: 1206191-01B MSD			Units: µg/Kg		Analysis Date: 6/11/2012 07:32 PM			
Client ID: Robinson C Pad		Run ID: SVMS7_120611A			SeqNo: 1996577		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1138	56	1250	0	91	45-110	1138	0.0468	30	
Anthracene	1218	56	1250	0	97.4	55-105	1222	0.307	30	
Benzo(a)anthracene	1183	56	1250	0	94.6	50-110	1202	1.6	30	
Benzo(a)pyrene	1230	56	1250	0	98.4	50-110	1243	1.03	30	
Benzo(b)fluoranthene	1182	56	1250	0	94.5	45-115	1260	6.39	30	
Benzo(g,h,i)perylene	1297	56	1250	0	104	40-125	1297	0.0321	30	
Benzo(k)fluoranthene	1295	56	1250	0	104	45-115	1229	5.29	30	
Chrysene	1221	56	1250	0	97.6	55-110	1226	0.414	30	
Dibenzo(a,h)anthracene	1209	56	1250	0	96.7	40-125	1210	0.0378	30	
Fluoranthene	1267	56	1250	0	101	55-115	1276	0.698	30	
Fluorene	1209	56	1250	0	96.6	50-110	1229	1.7	30	
Indeno(1,2,3-cd)pyrene	1230	56	1250	0	98.4	40-120	1232	0.113	30	
Naphthalene	1047	56	1250	0	83.7	40-105	1081	3.17	30	
Pyrene	1278	56	1250	0	102	45-125	1279	0.0616	30	
<i>Surr: 2-Fluorobiphenyl</i>	1941	0	3126	0	62.1	12-100	1883	3.05	40	
<i>Surr: 4-Terphenyl-d14</i>	3054	0	3126	0	97.7	25-137	3004	1.66	40	
<i>Surr: Nitrobenzene-d5</i>	2246	0	3126	0	71.9	37-107	2266	0.861	40	

The following samples were analyzed in this batch: | 1206191-01B

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41557 Instrument ID VMS9 Method: SW8260

MBLK		Sample ID: MBLK-41557-41557			Units: µg/Kg		Analysis Date: 6/11/2012 11:24 PM			
Client ID:		Run ID: VMS9_120611A			SeqNo: 1997004		Prep Date: 6/11/2012		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	987.5	0	1000	0	98.8	70-130	0			
Surr: 4-Bromofluorobenzene	936.5	0	1000	0	93.6	70-130	0			
Surr: Dibromofluoromethane	971.5	0	1000	0	97.2	70-130	0			
Surr: Toluene-d8	1065	0	1000	0	106	70-130	0			

MBLK		Sample ID: MBLK-41557-41557			Units: µg/Kg		Analysis Date: 6/12/2012 08:17 PM			
Client ID:		Run ID: VMS7_120612A			SeqNo: 1997852		Prep Date: 6/11/2012		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	972.5	0	1000	0	97.2	70-130	0			
Surr: 4-Bromofluorobenzene	973.5	0	1000	0	97.4	70-130	0			
Surr: Dibromofluoromethane	951	0	1000	0	95.1	70-130	0			
Surr: Toluene-d8	977	0	1000	0	97.7	70-130	0			

LCS		Sample ID: LCS-41557-41557			Units: µg/Kg		Analysis Date: 6/11/2012 10:37 PM			
Client ID:		Run ID: VMS9_120611A			SeqNo: 1997003		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1011	30	1000	0	101	75-125	0			
Ethylbenzene	1108	30	1000	0	111	75-125	0			
m,p-Xylene	2221	60	2000	0	111	80-125	0			
o-Xylene	1126	30	1000	0	113	75-125	0			
Toluene	1044	30	1000	0	104	70-125	0			
Xylenes, Total	3346	90	3000	0	112	75-125	0			
Surr: 1,2-Dichloroethane-d4	1022	0	1000	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	1042	0	1000	0	104	70-130	0			
Surr: Dibromofluoromethane	1070	0	1000	0	107	70-130	0			
Surr: Toluene-d8	1023	0	1000	0	102	70-130	0			

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41557 Instrument ID VMS9 Method: SW8260

LCS		Sample ID: LCS-41557-41557			Units: µg/Kg		Analysis Date: 6/12/2012 07:27 PM			
Client ID:		Run ID: VMS7_120612A			SeqNo: 1997851		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	942.5	30	1000	0	94.2	75-125	0			
Ethylbenzene	955.5	30	1000	0	95.6	75-125	0			
m,p-Xylene	1923	60	2000	0	96.2	80-125	0			
o-Xylene	951	30	1000	0	95.1	75-125	0			
Toluene	961	30	1000	0	96.1	70-125	0			
Xylenes, Total	2874	90	3000	0	95.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	978	0	1000	0	97.8	70-130	0			
Surr: 4-Bromofluorobenzene	990.5	0	1000	0	99	70-130	0			
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0			
Surr: Toluene-d8	1004	0	1000	0	100	70-130	0			

MS		Sample ID: 1206197-02A MS			Units: µg/Kg		Analysis Date: 6/12/2012 07:42 AM			
Client ID:		Run ID: VMS9_120611A			SeqNo: 1996985		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1019	30	1010	16.16	99.2	75-125	0			
Ethylbenzene	1317	30	1010	220.7	109	75-125	0			
m,p-Xylene	3079	61	2020	876.3	109	80-125	0			
o-Xylene	1515	30	1010	417.2	109	75-125	0			
Toluene	1403	30	1010	277.8	111	70-125	0			
Xylenes, Total	4594	91	3030	1300	109	75-125	0			
Surr: 1,2-Dichloroethane-d4	1028	0	1010	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	1067	0	1010	0	106	70-130	0			
Surr: Dibromofluoromethane	987.9	0	1010	0	97.8	70-130	0			
Surr: Toluene-d8	1107	0	1010	0	110	70-130	0			

MSD		Sample ID: 1206197-02A MSD			Units: µg/Kg		Analysis Date: 6/12/2012 08:06 AM			
Client ID:		Run ID: VMS9_120611A			SeqNo: 1996989		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1002	30	1010	16.16	97.6	75-125	1019	1.85	30	
Ethylbenzene	1294	30	1010	220.7	106	75-125	1317	1.74	30	
m,p-Xylene	3066	61	2020	876.3	108	80-125	3079	0.427	30	
o-Xylene	1508	30	1010	417.2	108	75-125	1515	0.468	30	
Toluene	1387	30	1010	277.8	110	70-125	1403	1.16	30	
Xylenes, Total	4574	91	3030	1300	108	75-125	4594	0.441	30	
Surr: 1,2-Dichloroethane-d4	1028	0	1010	0	102	70-130	1026	0.197	30	
Surr: 4-Bromofluorobenzene	1069	0	1010	0	106	70-130	1067	0.189	30	
Surr: Dibromofluoromethane	991.4	0	1010	0	98.2	70-130	987.9	0.357	30	
Surr: Toluene-d8	1116	0	1010	0	110	70-130	1107	0.818	30	

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

Client: HRL Compliance Solutions
Work Order: 1206191
Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41557 **Instrument ID:** VMS9 **Method:** SW8260

The following samples were analyzed in this batch:

1206191-01A

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: 41569 Instrument ID WETCHEM Method: SW7196A

MBLK	Sample ID: MBLK-41569-41569	Units: mg/Kg	Analysis Date: 6/11/2012 02:00 PM							
Client ID:	Run ID: WETCHEM_120611G	SeqNo: 1995493	Prep Date: 6/7/2012 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50								

LCS	Sample ID: LCS-41569-41569	Units: mg/Kg	Analysis Date: 6/11/2012 02:00 PM							
Client ID:	Run ID: WETCHEM_120611G	SeqNo: 1995494	Prep Date: 6/7/2012 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.757	0.50	1.992	0	88.2	75-110	0			

MS	Sample ID: 1206167-01B MS	Units: mg/Kg	Analysis Date: 6/11/2012 02:00 PM							
Client ID:	Run ID: WETCHEM_120611G	SeqNo: 1995496	Prep Date: 6/7/2012 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.282	0.49	1.961	0.296	50.3	60-130	0			S

MSD	Sample ID: 1206167-01B MSD	Units: mg/Kg	Analysis Date: 6/11/2012 02:00 PM							
Client ID:	Run ID: WETCHEM_120611G	SeqNo: 1995497	Prep Date: 6/7/2012 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.081	0.49	1.969	0.296	40.4	60-130	1.282	16.2	30	S

The following samples were analyzed in this batch:

1206191-01B

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: R105704 Instrument ID WETCHEM Method: SW9040

LCS	Sample ID: WLCSW1-060712-R105704	Units: s.u.	Analysis Date: 6/7/2012 06:30 PM							
Client ID:	Run ID: WETCHEM_120607L	SeqNo: 1993769	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.35	0	4.4	0	98.9	90-110		0		

LCS	Sample ID: WLCSS1-060712-R105704	Units: s.u.	Analysis Date: 6/7/2012 06:30 PM							
Client ID:	Run ID: WETCHEM_120607L	SeqNo: 1993788	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.35	0	4.4	0	98.9	90-110		0		

DUP	Sample ID: 1206208-01A DUP	Units: s.u.	Analysis Date: 6/7/2012 06:30 PM							
Client ID:	Run ID: WETCHEM_120607L	SeqNo: 1993778	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	12.4	0	0	0	0	0-0	12.4	0	20	

DUP	Sample ID: 1206216-01A DUP	Units: s.u.	Analysis Date: 6/7/2012 06:30 PM							
Client ID:	Run ID: WETCHEM_120607L	SeqNo: 1993798	Prep Date:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.68	0	0	0	0	0-0	9.68	0	20	

The following samples were analyzed in this batch: 1206191-01B 1206191-04A

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

Client: HRL Compliance Solutions
 Work Order: 1206191
 Project: Antero Robinson C Pad 11-235 5/31/12

QC BATCH REPORT

Batch ID: R105724 Instrument ID MOIST Method: A2540 G

MBLK	Sample ID: WBLKS1-R105724	Units: % of sample					Analysis Date: 6/7/2012 02:47 PM			
Client ID:	Run ID: MOIST_120607A	SeqNo: 1994144			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-R105724	Units: % of sample					Analysis Date: 6/7/2012 02:47 PM			
Client ID:	Run ID: MOIST_120607A	SeqNo: 1994143			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: 1206191-02ADUP	Units: % of sample					Analysis Date: 6/7/2012 02:47 PM			
Client ID: Robinson C BKGD 1	Run ID: MOIST_120607A	SeqNo: 1994123			Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	1.65	0.050	0	0	0	0-0	1.69	2.4	20	

DUP	Sample ID: 1206197-03ADUP	Units: % of sample					Analysis Date: 6/7/2012 02:47 PM			
Client ID:	Run ID: MOIST_120607A	SeqNo: 1994131			Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.88	0.050	0	0	0	0-0	11.87	0.0842	20	

The following samples were analyzed in this batch:

1206191-01B	1206191-02A	1206191-03A
1206191-04A		

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



ALS Laboratory Group

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

Chain-of-Custody

Form 2026

1206191

Robinson C Pad		Reed Wold		6/4/2012		1 of 1	
Job # 11-235		Robinson C Pad		Standard		By Lab or Return to Client	
HCSI		Antero Resources		GRO/BTEX	DRO/PAH/ Metals (table 910-1)	SAR/ Ecph	Arsenic
Mark Mumby		Cole Kilstrom					
744 Horizon Ct Ste 140		1625 17th St.					
Grand Junction CO 81508		Denver CO 80202					
970-243-3271		303-357-7341					
970-243-3280		Ckilstrom@anteroresources.com					
Mmumby@hcsinc.com		Ckilstrom@anteroresources.com		John Pollock			
1	Robinson C Pad	SO	5/31/2012	12:00	3	8	X X X
2	Robinson C BKGD 1	SO	5/31/2012	12:15	1	8	X X X X
3	Robinson C BKGD 2	SO	5/31/2012	12:20	1	8	X X X X
4	Robinson C BKGD 3	SO	5/31/2012	12:30	2	8	X 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.

10.8	X	LEVEL II (Standard GC)
		LEVEL III (Std GC + toms)
		LEVEL IV (Std GC + toms + raw data)

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

Reed Wold	Reed Wold	6/4/12	5:00
Diane F Shaw	Diane F Shaw	6/12	1000



Environmental

Subcontractor:

A & L Great Lakes Agricultural Lab

3505 Conestoga Dr

Fl Wayne, IN 46808

TEL: (260) 483-4759

FAX: (260) 483-5274

Acct #: 91000

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date: 07-Jun-12

COC ID: 3688

Due D 12-Jun-12

Salesperson Bruce Schlatter

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	1206191	A	Subcontracted Analytes (SUBCONTRACT) SAR-EC											
Work Order		Project Number		B												
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C												
Send Report To	Ann Preston	Inv Aith	Accounts Payable	D												
Address	3352 128th Avenue	Address	3352 128th Avenue	E												
				F												
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G												
Phone	(616) 399-6070	Phone	(616) 399-6070	H												
Fax	(616) 399-6185	Fax	(616) 399-6185	I												
eMail Address	ann.preston@alsglobal.com	eMail CC		J												
ALS Sample ID	Client Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J		
1206191-01C	Robinson C Pad	Soil	31/May/2012 12:00	(1) MISC	X											
1206191-04C	Robinson C BKGD 3	Soil	31/May/2012 12:30	(1) MISC	X											

Comments:

Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by:

Relinquished by:

Date/Time

Date/Time

Received by:

Received by:

Date/Time

Date/Time

Cooler IDs

Report/QC Level

Site

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 06-Jun-12 10:00

Work Order: 1208191

Received by: DS

Checklist completed by Diane Shan 07-Jun-12
eSignature Date

Reviewed by: Ann Preston 07-Jun-12
eSignature 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

Temperature(s)/Thermometer(s): 10.8 c

Cooler(s)/Kit(s):

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: HRL

Date Contacted: 06-Jun-12

Person Contacted: Mark

Contacted By: Ann Preston

Regarding: Temperature

Comments: Run samples that arrived out of temperature compliance

CorrectiveAction:

FedEx
Express
NEW Package
US Airbill

Form
Date 6/14/12

Sender's Name
Rosa A. Wald

Company
HLST

Address
744 Holman Ct

City
Hartford

State
CT

Zip
06106

Country
USA

Phone
860 243 3271

Product
Sample Training

Product #
581 600 3

Address
3350

City
Holland

State
MI

Zip
49424

Country
USA

0200
Express Package Service
FedEx Retrieval Copy

01
FedEx First Overnight
02
FedEx Priority Overnight
03
FedEx Standard Overnight
04
Packaging
05
FedEx Envelope
06
Special Handling and Delivery Signature Options

07
No Signature Required
08
Direct Signature
09
Adult Signature
10
Signature Required (Signature of Sender)

11
Signature Required (Signature of Recipient)
12
Signature Required (Signature of Recipient - No Signature Required)
13
Signature Required (Signature of Recipient - No Signature Required - No Signature Required)

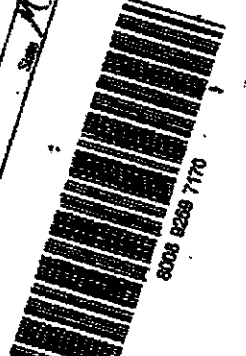
14
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20
Signature Required (Signature of Recipient - No Signature Required - No Signature Required - No Signature Required - No Signature Required - No Signature Required - No Signature Required)

FedEx.com 1800.GoFedEx 1800.463.3339



612

FedEx.com 1800.GoFedEx 1800.463.3339

PRIOR HISTORY

FORM
19
Rev 6/99

**State of Colorado
Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

Complete form received
3/15/2012; Received Incomplete form
3/8/2012

FACILITY ID:

SPILL/RELEASE REPORT

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

OPERATOR INFORMATION

Name of Operator: <u>Antero Resources Piceance Corporation</u> OGCC Operator No: <u>10079</u>	Phone Numbers
Address: <u>1625 17th Street</u>	No: <u>303-357-7341</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u>	Fax: <u>303-357-7315</u>
Contact Person: <u>Gerard G. Alberts</u>	E-Mail: <u>jalberts@anteroresources.com</u>

DESCRIPTION OF SPILL OR RELEASE

Date of Incident: <u>2/27/2012</u> Facility Name & No.: <u>Robinson C Pad, Facility No. 335546</u>	County: <u>Garfield County</u>
Type of Facility (well, tank battery, flow line, pit): <u>Well Pad</u>	QtrQtr: <u>SENE</u> Section: <u>17</u>
Well Name and Number: <u>Robinson # C10</u>	Township: <u>T6S</u> Range: <u>92W</u>
API Number: <u>05-045-17109</u>	Meridian: <u>6th</u>
Specify volume spilled and recovered (in bbls) for the following materials:	
Oil spilled: <u>0.020</u> Oil recov'd: <u>0.020</u> Water spilled: <u>25</u> Water recov'd: <u>25</u> Other spilled: <u>0</u> Other recov'd: <u>0</u>	
Ground Water impacted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Surface Water impacted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contained within berm? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Area and vertical extent of spill: <u>1200 sq. ft</u> x <u>approx. 1 in</u>
Current land use: <u>Agriculture, grazing</u>	Weather conditions: <u>45 degrees, sunny</u>
Soil/geology description: <u>Potts loam, 3 to 6 percent slopes</u>	
IF LESS THAN A MILE, report distance IN FEET to nearest.... Surface water: <u>333.6</u> wetlands: <u>459.66</u> buildings: <u>1136.47</u>	
Livestock: _____ water wells: <u>500.5</u> Depth to shallowest ground water: <u>300</u>	
Cause of spill (e.g., equipment failure, human error, etc.): <u>human error</u> Detailed description of the spill/release incident:	
At approximately 1:00 pm on February 27, 2012 during fracking operations at the Robinson C Pad, an 8" hose from a blender unit was pulled off while moving the unit backwards to place under sand masters. Approximately 25 bbls of produced water was released onto a synthetic liner beneath the blender and into a small area surrounding the unit. All released water was contained on-site. A vacuum truck was immediately called and recovered all 25 bbls of produced water spilled. Robinson C Pad is located within a 317B buffer area.	

CORRECTIVE ACTION

Robinson C Pad is outside the 317B external buffer area

Describe immediate response (how stopped, contained and recovered):
Valves on the blending unit were immediately shut. Vacuum truck arrived within an hour and recovered all released water.

Describe any emergency pits constructed:
N/A

How was the extent of contamination determined:
Extent of contamination was approximated after the release. Further field measurements will be made once fracking operations are completed on site.

Further remediation activities proposed (attach separate sheet if needed):
Soil samples will be taken to confirm no soil contamination after fracking operations are completed on site.

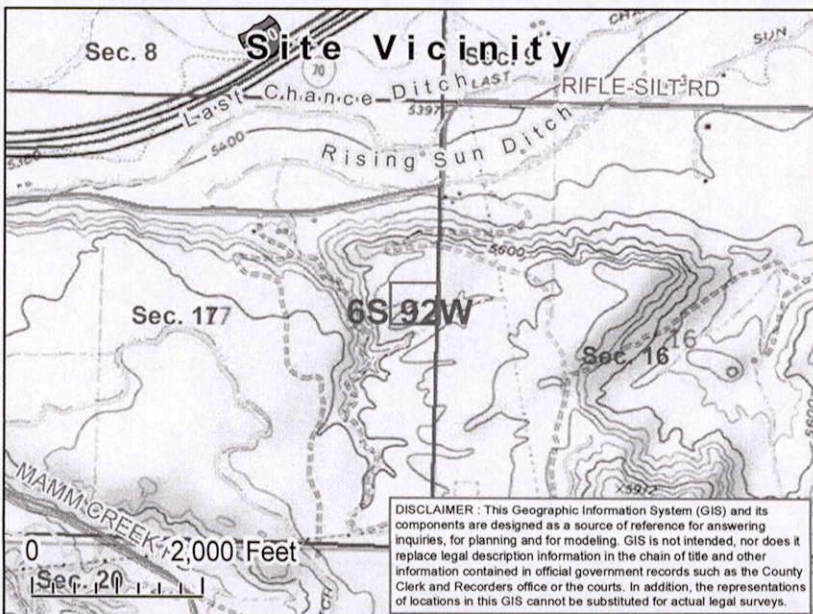
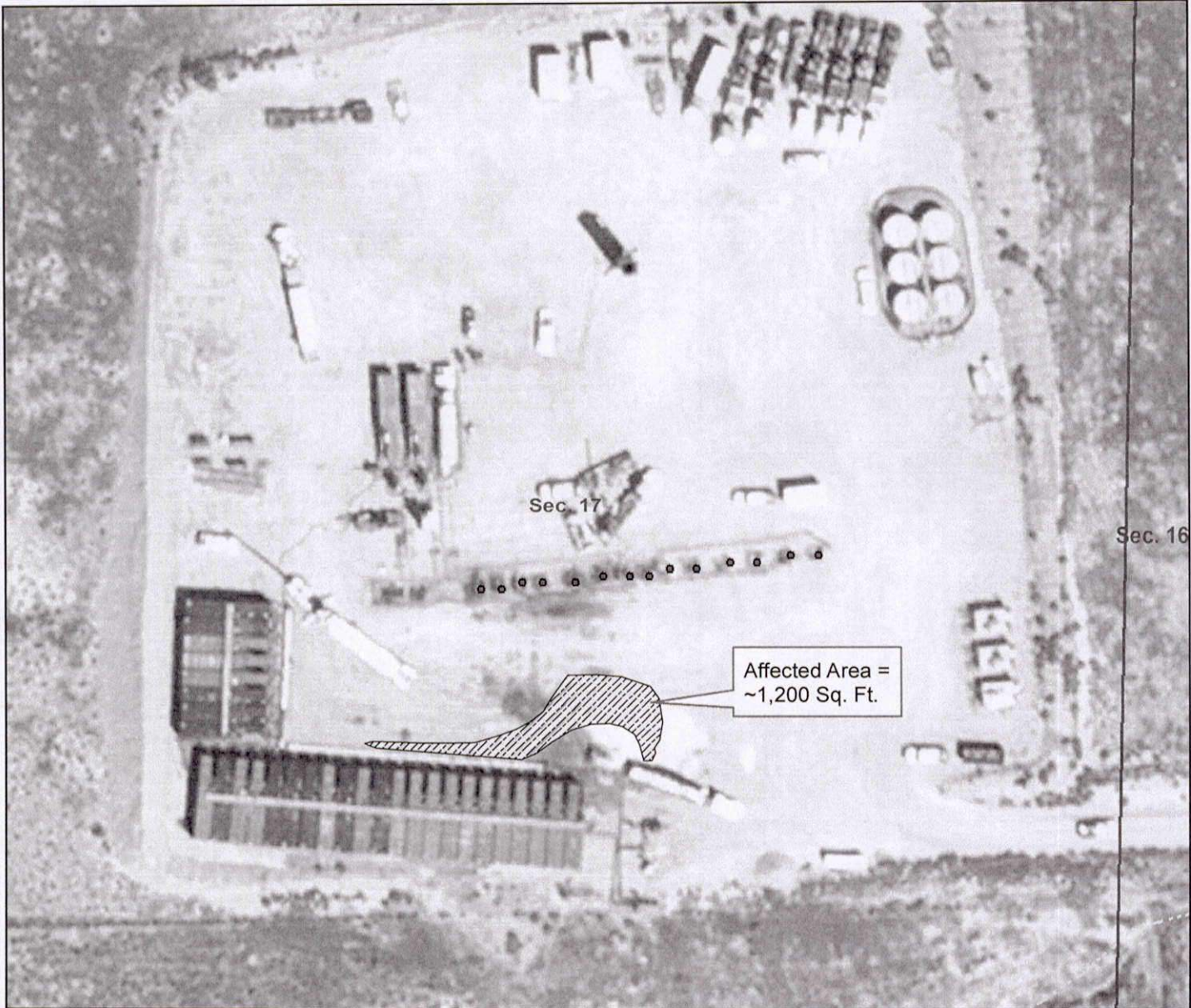
Describe measures taken to prevent problem from reoccurring:
All valves will be shut on the blending unit prior to relocating it on the pad site.

OTHER NOTIFICATIONS

List the parties and agencies notified (County, BLM, EPA, DOT, Local Emergency Planning Coordinator or other).

Date	Agency	Contact	Phone	Response
2/28/2012	COGCC	Linda Spry O'Rourke	970-625-2497	Provided information regarding spill

Spill/Release Tracking No: 2223316

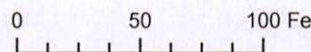


DISCLAIMER: This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

Attachment A--Spill Location Map
 Location: Robinson C Pad
 Antero Resources Piceance Corp.

Legend

- Gas Well Head
- PLSS
 - ▭ Township
 - ▭ Section
 - ▬ Highways
 - ▬ Public Roads
- Hydrographic Features
 - ▬ Perennial Stream
 - ▬ Intermittent Stream
 - ▬ Ditch/Canal



ANTERO RESOURCES

SITE ID: 05-045-14667
SITE NAME: Robinson C Pad
NWSE SEC. 17 T6S R92W



NOT TO SCALE

Received
3/8/2012
Rifle COGCC

LEGEND

- BARBED WIRE FENCE (SITE BOUNDARY/AREA OF DISTURBANCE ON SOUTH SIDE)
- EARTHEN BERM
- STEEL CONTAINMENT BERM
- WELL HEAD
- DRAINAGE FLOW DIRECTION

- GRAVEL ROAD
- STRAW WATTLE
- SILT FENCE
- RIP RAP
- CULVERT
- FRAC TANK
- PIG LAUNCHER

- EROSION CONTROL BLANKET
- SEEDING
- STRAW BALES
- STOCKPILE

BMP's mark site boundary / area of disturbance

BERM AND FILL SLOPE
COVERED WITH ECB,
<10% VEG

FILL CUT
400'

CUT SLOPE COVERED
WITH ECB, <10% VEG

FRAC TRUCKS &
EQUIP.

AST's

SEP

SEP

SEP

DRY WASH

BERM AND FILL SLOPE
COVERED WITH ECB, <10% VEG

DRY WASH

