

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company	Contact Ashley Maxwell
Address 3401 E. 30th St., Farmington, NM 87402	Telephone No. 505-324-5169
Facility Name Hardie A 1B	Facility Type Gas Well
Surface Owner Federal	Mineral Owner Federal
API No. 3004531139 NMSF-078416	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	26	029N	008W	930'	North	2160'	West	San Juan

Latitude 36.70126 Longitude -107.64701

NATURE OF RELEASE

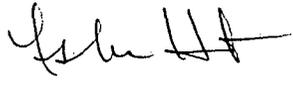
Type of Release Produced Water	Volume of Release 5 BBLs	Volume Recovered 3.5 BBLs
Source of Release Water Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 1/9/2013 @ 10:30
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour RCVD JUL 26 '13	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. OIL CONS. DIV. DIST. 3	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Flame arrester from the fire tube in a water tank developed a leak due to corrosion causing the release of 5 BBLs of produced water. The release remained within the berm and 3.5 BBLs produced water were recovered using a water truck.

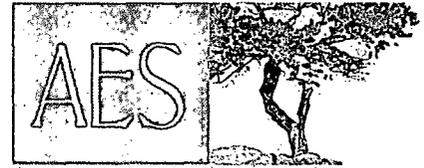
Describe Area Affected and Cleanup Action Taken.* **ConocoPhillips Company will assess the soils to determine further action, if needed. Soils were assessed and laboratory analytical results were below applicable NMOCD action levels. No further remediation is required at this time.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 8/16/2013	Expiration Date:
E-mail Address: Lisa.Hunter@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: July 25, 2013	Phone: 505-326-9786	

* Attach Additional Sheets If Necessary

NJK 13 228 3470



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche
Farmington, NM 87401
505-564-2281

Durango, Colorado
970-403-3084

April 17, 2013

Lisa Hunter
ConocoPhillips
San Juan Business Unit
Office 214-4
5525 Hwy 64
Farmington, New Mexico 87401

**RE: Produced Water Release Report
Hardie A 1B
San Juan County, New Mexico**

Dear Ms. Hunter:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the five barrel (bbl) produced water release at the ConocoPhillips (CoP) Hardie A 1B, located in San Juan County, New Mexico.

1.0 Site Information

1.1 Location

Site Name – Hardie A 1B

Legal Description – NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, T29N, R8W, San Juan County, New Mexico

Well Latitude/Longitude – N36.70129 and W107.64742, respectively

Release Latitude/Longitude – N36.70119 and W107.64710, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, March 2013

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report dated May 1991 for the Hardie A 211 well, located approximately 450 feet west-northwest of the release location, reported the depth to groundwater as 150 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research

Center online mapping tool (<http://ford.nmt.edu/react/project.html>) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. An unnamed wash is located approximately 180 feet north of the location and eventually discharges to Jasis Canyon. Based on this information, the location was assessed a ranking score of 20 per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

1.3 Confirmation Sampling

AES was initially contacted by Ashley Maxwell, CoP representative, on January 15, 2013, and on March 6, 2013, Deborah Watson and Heather Woods of AES completed the field work. Confirmation sampling included the collection of one 5-point composite soil sample. Sample locations are shown on Figure 2.

2.0 Soil Sampling

On March 6, 2013, AES personnel collected one 5-point composite soil sample (SC-1) at approximately 0.25 feet bgs from around the produced water tank. Soil sample SC-1 was submitted for confirmation laboratory analysis.

2.1 Laboratory Analyses

The composite soil sample collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B; and
- Chloride per USEPA Method 300.0.

2.2 Laboratory Analytical Results

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as less than 0.048 mg/kg and 0.24 mg/kg, respectively. TPH as GRO and DRO were

reported as less than 4.8 mg/kg and 10 mg/kg, respectively. The laboratory chloride concentration was reported at 81 mg/kg. Laboratory analytical results are summarized in Table 1 and included on Figure 2. The laboratory analytical report is attached.

Table 1. Soil Laboratory Analytical Results
Hardie A 1B Produced Water Release, March 2013

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level*			10	50	100*		--
SC-1	3/6/13	0.25	<0.048	<0.24	<4.8	<10	81

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

3.0 Conclusions and Recommendations

On March 6, 2013, AES conducted confirmation sampling of a produced water release at the Hardie A 1B. Action levels for releases are determined by the NMOCD ranking score per NMOCD's *Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a ranking score of 20. Laboratory analytical results from composite sample SC-1 reported benzene, total BTEX, and TPH as GRO/DRO below NMOCD action levels. The chloride concentration in SC-1 was 81 mg/kg.

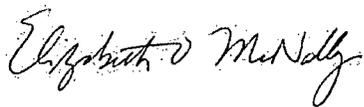
Based on laboratory analytical results benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels. No further work is recommended at the Hardie A 1B produced water release location.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,



Landrea Cupps
Environmental Scientist



Elizabeth McNally, P.E.

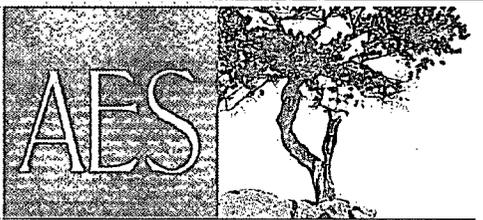
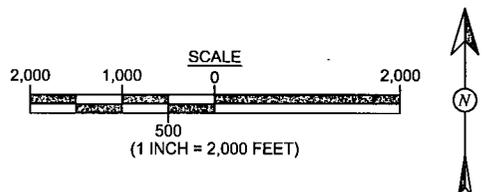
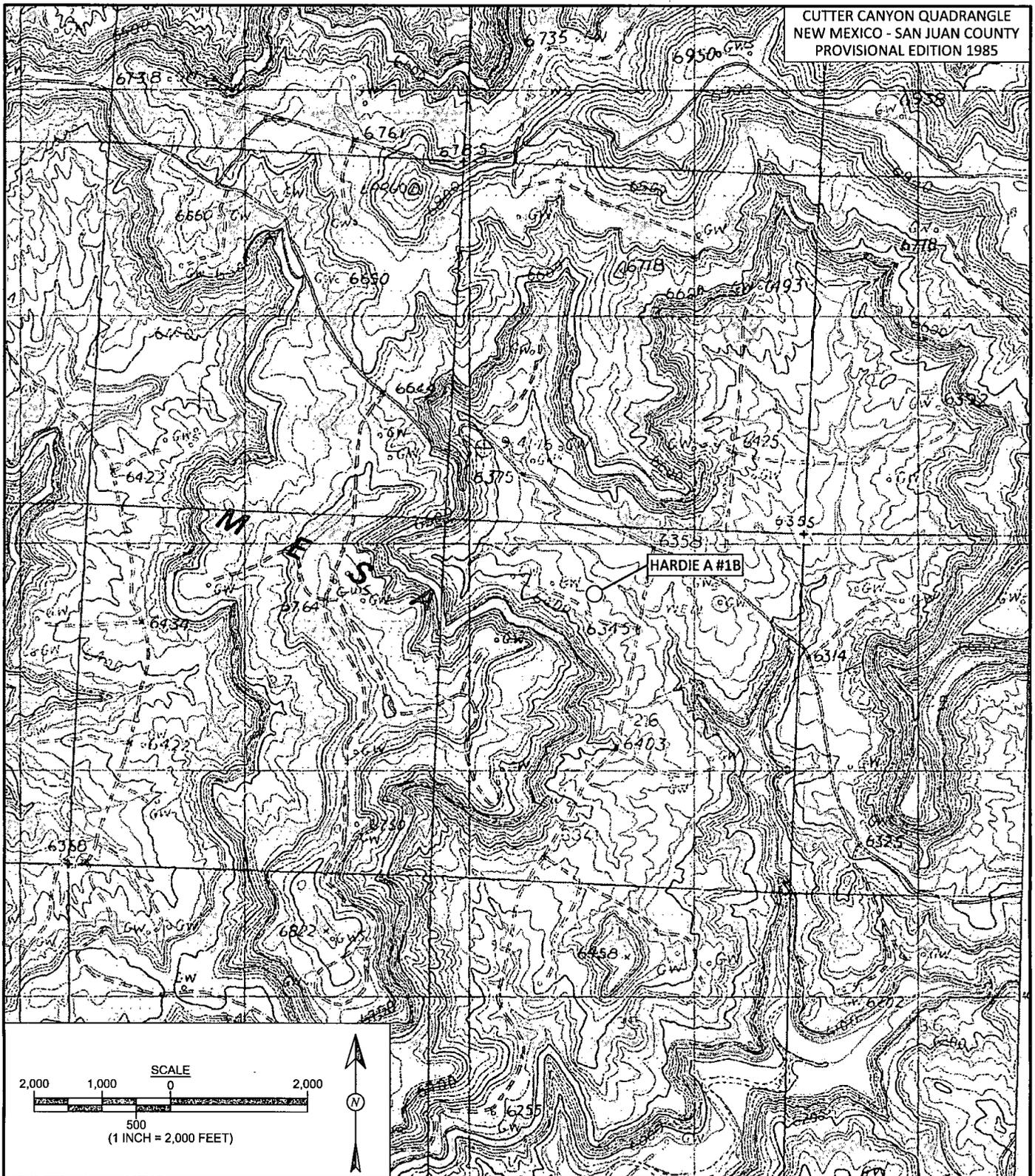
Attachments:

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, March 2013

Hall Analytical Report 1303333

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\Hardie A 1B\Hardie A 1B Produced Water Release Report 041713.docx



Animas Environmental Services, LLC

DRAWN BY: K. Christiansen	DATE DRAWN: April 3, 2013
REVISIONS BY: K. Christiansen	DATE REVISED: April 3, 2013
CHECKED BY: D. Watson	DATE CHECKED: April 3, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 3, 2013

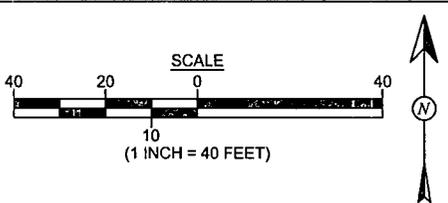
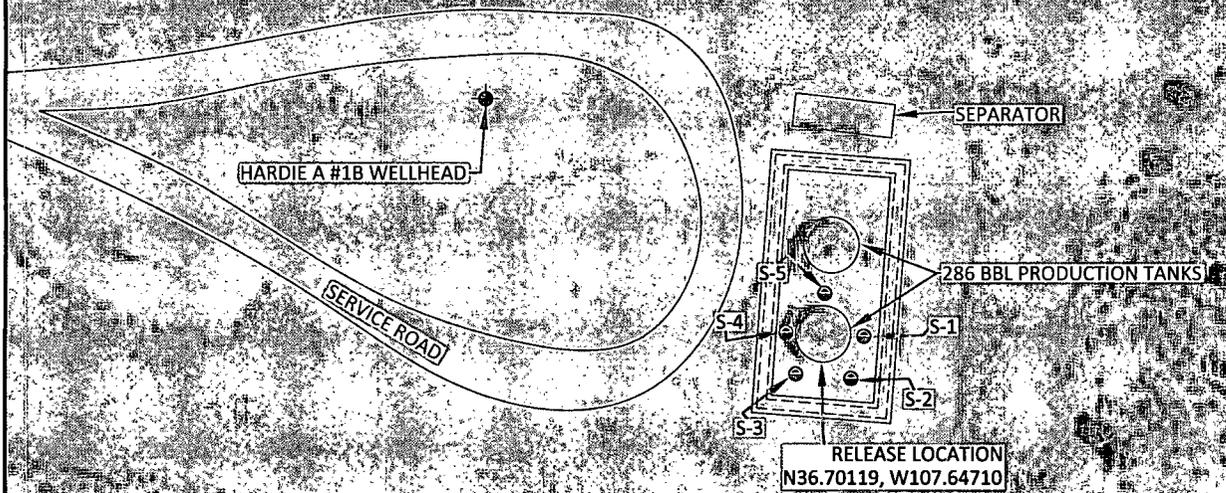
FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
 ConocoPhillips
 HARDIE A #1B
 NE¼ NW¼, SECTION 26, T29N, R8W
 SAN JUAN COUNTY, NEW MEXICO
 N36.70129, W107.64742

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Chloride (mg/kg)
NMOCD ACTION LEVEL			10	50	100		---
SC-1	3/6/13		<0.048	<0.24	<4.8	<10	81

SC-1 IS A 5-PT COMPOSITE OF S-1 THROUGH S-5 COLLECTED AROUND THE PRODUCTION TANK. ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0.

LEGEND
 SECONDARY CONTAINMENT BERM



AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE



Animas Environmental Services, LLC

DRAWN BY: K. Christiansen	DATE DRAWN: April 3, 2013
REVISIONS BY: K. Christiansen	DATE REVISED: April 3, 2013
CHECKED BY: D. Watson	DATE CHECKED: April 3, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 3, 2013

FIGURE 2
AERIAL SITE MAP
MARCH 2013
 ConocoPhillips
 HARDIE A #1B
 NE¼, NW¼, SECTION 26, T29N, R8W
 SAN JUAN COUNTY, NEW MEXICO
 N36.70129, W107.64742



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 13, 2013

Debbie Watson

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: CoP Hardie A 1B

OrderNo.: 1303333

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/7/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services **Client Sample ID:** SC-1
Project: CoP Hardie A 1B **Collection Date:** 3/6/2013 9:17:00 AM
Lab ID: 1303333-001 **Matrix:** SOIL **Received Date:** 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: MMD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/12/2013 12:45:02 PM
Surr: DNOP	117	72.4-120		%REC	1	3/12/2013 12:45:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/8/2013 3:18:35 PM
Surr: BFB	109	84-116		%REC	1	3/8/2013 3:18:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	3/8/2013 3:18:35 PM
Toluene	ND	0.048		mg/Kg	1	3/8/2013 3:18:35 PM
Ethylbenzene	ND	0.048		mg/Kg	1	3/8/2013 3:18:35 PM
Xylenes, Total	ND	0.096		mg/Kg	1	3/8/2013 3:18:35 PM
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/8/2013 3:18:35 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	81	7.5		mg/Kg	5	3/12/2013 3:34:06 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303333

13-Mar-13

Client: Animas Environmental Services

Project: CoP Hardie A 1B

Sample ID	MB-6444	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	6444	RunNo:	9153					
Prep Date:	3/12/2013	Analysis Date:	3/12/2013	SeqNo:	260379	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-6444	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	6444	RunNo:	9153					
Prep Date:	3/12/2013	Analysis Date:	3/12/2013	SeqNo:	260380	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Sample ID	1303394-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	6444	RunNo:	9153					
Prep Date:	3/12/2013	Analysis Date:	3/12/2013	SeqNo:	260382	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	40	7.5	15.00	27.88	80.5	64.4	117			

Sample ID	1303394-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	6444	RunNo:	9153					
Prep Date:	3/12/2013	Analysis Date:	3/12/2013	SeqNo:	260383	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	42	7.5	15.00	27.88	94.9	64.4	117	5.27	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303333

13-Mar-13

Client: Animas Environmental Services

Project: CoP Hardie A 1B

Sample ID	1303336-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	6403	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259283	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		4.873		102	72.4	120			

Sample ID	1303336-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	6403	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259284	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.176		106	72.4	120	0	0	

Sample ID	MB-6400	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	6400	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259673	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		102	72.4	120			

Sample ID	LCS-6400	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	6400	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259675	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.5	47.4	122			
Surr: DNOP	5.1		5.000		101	72.4	120			

Sample ID	1303331-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	6400	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259695	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	51.98	0	92.8	12.6	148			
Surr: DNOP	5.6		5.198		108	72.4	120			

Sample ID	1303331-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	6400	RunNo:	9099					
Prep Date:	3/8/2013	Analysis Date:	3/12/2013	SeqNo:	259748	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.6	47.80	0	86.3	12.6	148	15.6	22.5	
Surr: DNOP	5.0		4.780		105	72.4	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303333

13-Mar-13

Client: Animas Environmental Services

Project: CoP Hardie A 1B

Sample ID	MB-6447	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	6447	RunNo:	9140					
Prep Date:	3/12/2013	Analysis Date:	3/13/2013	SeqNo:	260075	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	72.4	120			

Sample ID	LCS-6447	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	6447	RunNo:	9140					
Prep Date:	3/12/2013	Analysis Date:	3/13/2013	SeqNo:	260076	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	72.4	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303333

13-Mar-13

Client: Animas Environmental Services

Project: CoP Hardie A 1B

Sample ID MB-6381	SampType: MBLK	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: PBS	Batch ID: 6381	RunNo: 9092								
Prep Date: 3/7/2013	Analysis Date: 3/8/2013	SeqNo: 258935			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	84	116			

Sample ID LCS-6381	SampType: LCS	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: LCSS	Batch ID: 6381	RunNo: 9092								
Prep Date: 3/7/2013	Analysis Date: 3/8/2013	SeqNo: 258939			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	62.6	136			
Surr: BFB	1100		1000		114	84	116			

Sample ID 1303284-002AMS	SampType: MS	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: BatchQC	Batch ID: 6381	RunNo: 9092								
Prep Date: 3/7/2013	Analysis Date: 3/8/2013	SeqNo: 258961			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.9	24.30	0	114	70	130			
Surr: BFB	1200		971.8		127	84	116			S

Sample ID 1303284-002AMSD	SampType: MSD	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: BatchQC	Batch ID: 6381	RunNo: 9092								
Prep Date: 3/7/2013	Analysis Date: 3/8/2013	SeqNo: 258962			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.8	24.22	0	133	70	130	14.6	22.1	S
Surr: BFB	1200		969.0		125	84	116	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303333

13-Mar-13

Client: Animas Environmental Services

Project: CoP Hardie A 1B

Sample ID MB-6381	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 6381		RunNo: 9092							
Prep Date: 3/7/2013	Analysis Date: 3/8/2013		SeqNo: 258989		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID LCS-6381	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 6381		RunNo: 9092							
Prep Date: 3/7/2013	Analysis Date: 3/8/2013		SeqNo: 258993		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.050	1.000	0	87.7	80	120			
Toluene	0.89	0.050	1.000	0	88.8	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.7	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID 1303284-001AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BatchQC	Batch ID: 6381		RunNo: 9092							
Prep Date: 3/7/2013	Analysis Date: 3/8/2013		SeqNo: 259004		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.047	0.9416	0	93.1	67.2	113			
Toluene	0.89	0.047	0.9416	0	94.1	62.1	116			
Ethylbenzene	0.90	0.047	0.9416	0	96.1	67.9	127			
Xylenes, Total	2.7	0.094	2.825	0	95.4	60.6	134			
Surr: 4-Bromofluorobenzene	1.1		0.9416		117	80	120			

Sample ID 1303284-001AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BatchQC	Batch ID: 6381		RunNo: 9092							
Prep Date: 3/7/2013	Analysis Date: 3/8/2013		SeqNo: 259006		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.047	0.9398	0	94.9	67.2	113	1.66	14.3	
Toluene	0.89	0.047	0.9398	0	95.1	62.1	116	0.772	15.9	
Ethylbenzene	0.91	0.047	0.9398	0	96.9	67.9	127	0.640	14.4	
Xylenes, Total	2.8	0.094	2.820	0	98.4	60.6	134	2.94	12.6	
Surr: 4-Bromofluorobenzene	1.1		0.9398		116	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1303333
 Received by/date: AG 03/07/13
 Logged By: Michelle Garcia 3/7/2013 9:56:00 AM *Michelle Garcia*
 Completed By: Michelle Garcia 3/7/2013 3:07:34 PM *Michelle Garcia*
 Reviewed By: IO 03/07/2013

Chain of Custody

- 1. Were seals intact? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes No NA
- 5. Was an attempt made to cool the samples? Yes No NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 7. Sample(s) in proper container(s)? Yes No
- 8. Sufficient sample volume for indicated test(s)? Yes No
- 9. Are samples (except VOA and ONG) properly preserved? Yes No
- 10. Was preservative added to bottles? Yes No NA
- 11. VOA vials have zero headspace? Yes No No VOA Vials
- 12. Were any sample containers received broken? Yes No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 14. Are matrices correctly identified on Chain of Custody? Yes No
- 15. Is it clear what analyses were requested? Yes No
- 16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

