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

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

Form C-141
Revised August 8, 2011

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 **ConocoPhillips Company**	Contact **Ashley Maxwell**
Address **3401 E. 30th St., Farmington, NM 87402**	Telephone No. **505-324-5169**
Facility Name **Moore LS 5B**	Facility Type **Gas Well** Lease # **SF-078147**

Surface Owner **Federal**	Mineral Owner **Federal**	API No. **3004535266**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	**24**	**32N**	**12W**	**2020'**	**North**	**750'**	**West**	**San Juan County**

Latitude 36.973258° N **Longitude -108.052767° W**

NATURE OF RELEASE

Type of Release **KCL Water**	Volume of Release **30 BBL**	Volume Recovered **0 BBL**
Source of Release **Frac Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **1/16/2012 7:00 a.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Brandon Powell – NMOCD** **Mark Kelly – BLM FFO**	RCVD MAY 17'12 OIL CONS. DIV. DIST. 3
By Whom? **Ashley Maxwell**	Date and Hour **NMOCD – 1/17/2012 @ 9:08 AM** **BLM FFO – 1/17/2012 @ 9:06 AM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A frac tank leaked releasing 30 BBL of KCL. Leak remained on location with zero BBL recovered.

Describe Area Affected and Cleanup Action Taken.*

COPC will assess the soil and determine a path forward for clean-up. **Samples were collected and analytical results for benzene, BTEX and TPH were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required.**

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: Ashley Maxwell	Approved by Environmental Specialist: Jonathan D. Kelly
Title: Field Environmental Specialist	Approval Date: 7/25/2012 Expiration Date:
E-mail Address: ashley.p.wethington@conocophillips.com	Conditions of Approval: Chlorides sample required due to type of fluid released Attached ☐
Date: May 15, 2012 Phone: 505-324-5169	nJK1220736658

* Attach Additional Sheets If Necessary

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Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

May 8, 2012

Ashley Maxwell
ConocoPhillips
San Juan Business Unit
Office 216-2
5525 Hwy 64
Farmington, NM 87401

RE: Moore LS 5B Release Assessment Report
San Juan County, New Mexico

Dear Ms. Maxwell:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with a well fracturing tank release assessment at ConocoPhillips (CoP) Moore LS 5B, located in San Juan County, New Mexico. The release was a result of a leaking tank that contained potassium chloride solution that was used during hydraulic fracturing activities at the Moore LS 5B natural gas well.

1.0 Site Information

1.1 Location

Site Name – Moore LS 5B
Legal Description - SW¼ NW¼, Section 24, T32N, R12W, San Juan County, New Mexico
Release Latitude/Longitude – N36.97312 and W108.05284, respectively
Well Latitude/Longitude – N36.97336, W108.05324, respectively
Land Jurisdiction - Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map
Figure 3. Sample Location and Results Map, April 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) and New Mexico Office of the State Engineer (NMOSE) databases were reviewed, and no prior ranking information was located. Once on site, AES personnel assessed the ranking using known information of the area, 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 below ground surface (bgs); distance

to the nearest surface water is approximately 300 feet west-northwest (unnamed wash); and the location is not within a well-head protection area. The site location has been assigned a ranking score of 10 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

1.3 Release Assessment

AES was initially contacted by Ashley Maxwell, CoP representative, on April 3, 2012, and on the same day, AES personnel collected one soil sample (SC-1) from the release area, which was identified by visibly stained soil. The 5-point composite soil sample was collected from the area where the frac tanks were located during the well fracturing activities. The composite sample was submitted for laboratory analysis.

2.0 Soil Sampling

The composite soil sample was collected from the ground surface and field-screened for volatile organic compounds (VOCs). The sample was also submitted for laboratory analysis. The soil sample location is included on Figure 3.

2.1 Soil Field Screening

A portion of the sample was utilized for field screening of VOC vapors with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.2 Soil Laboratory Analyses

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

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;

2.3 Soil Field and Laboratory Analytical Results

Field screening for VOCs in SC-1 had a reported OVM result of 0.0 ppm. Laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits. Field screening and laboratory results are summarized in Table 1 and on Figure 3. The laboratory analytical report is attached.

Table 1. Soil OVMs and Laboratory Analytical Results, Moore LS 5B, April 2012

Sample ID	Date	Depth (ft)	OVM (ppm)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD Action Level*			***100***	***10***	***50***	***1,000***	
SC-1	04/03/12	Surface	0.0	<0.050	<0.25	<5.0	<9.9

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

3.0 Conclusions and Recommendations

AES completed a release assessment at the Moore LS 5B on April 3, 2012. The release was associated with a potassium chloride tank used in hydraulic fracturing activities at the site. NMOCD action levels for releases are specified NMOCD's *Guidelines for Leaks, Spills, and Releases* (August 1993). Soil field screening for VOCs and laboratory analytical results showed that benzene, BTEX and TPH concentrations were below the NMOCD action levels for SC-1. No further work is recommended.

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

Sincerely,

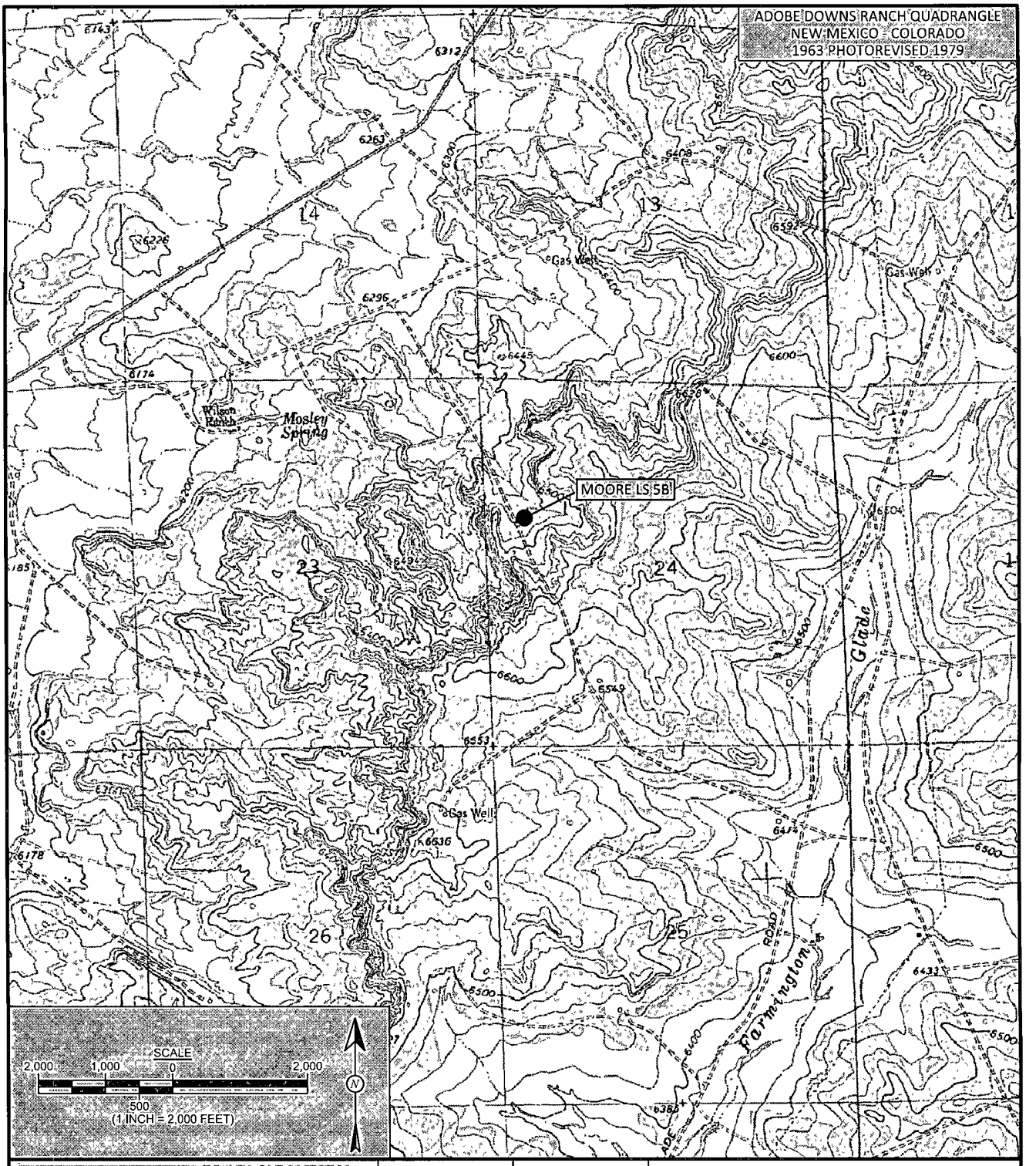
Thomas J. Long
Project Manager

Elizabeth McNally, P.E.

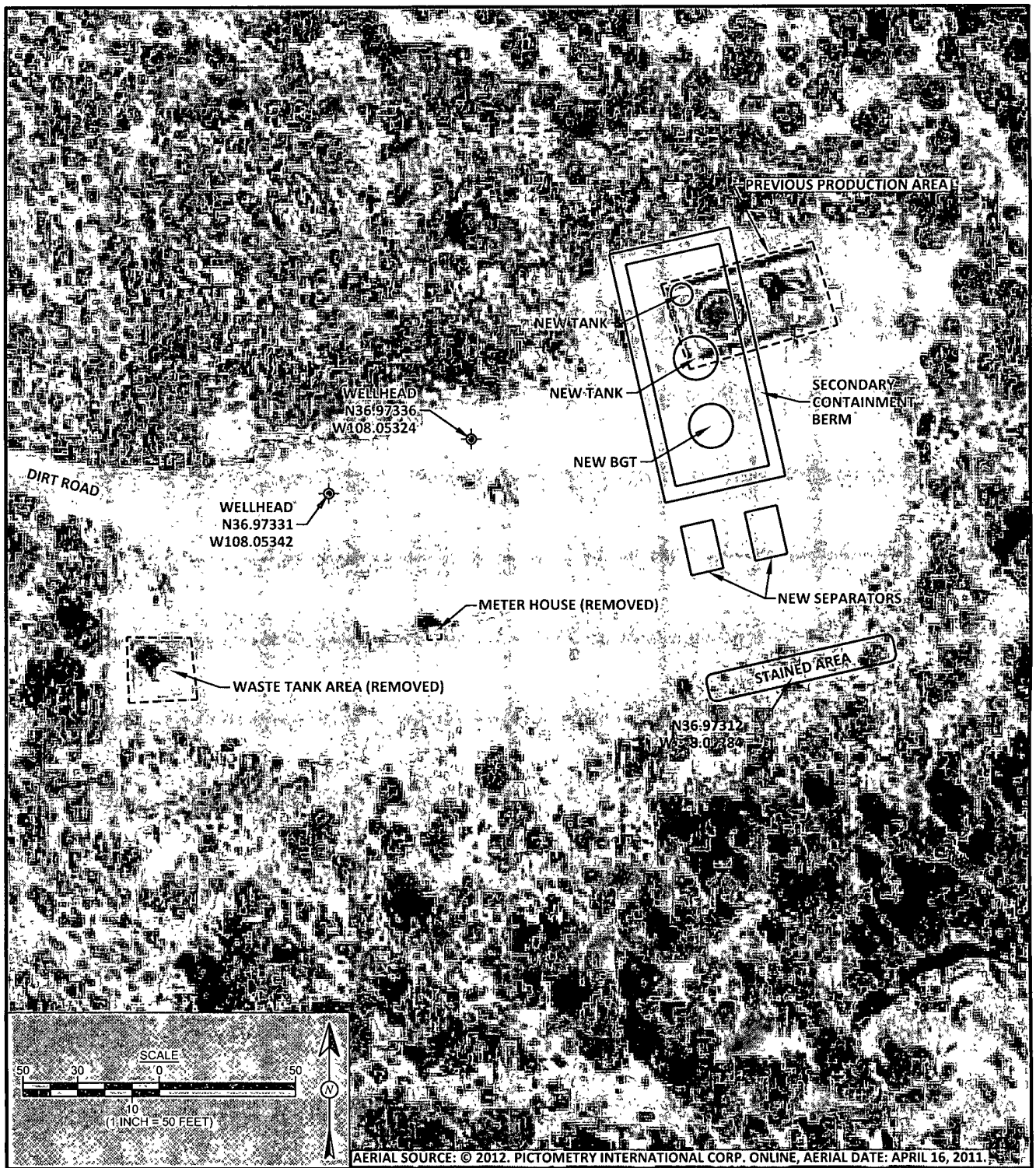
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map
Figure 3. Sample Location and Results Map, April 2012
Hall Analytical Report 1204145

S:\Animas 2000\2012 Projects\Conoco Phillips\Moore LS 5B\Moore LS 5B Release Assessment Report 050812.docx



Animas Environmental Services, LLC	**DRAWN BY:** C Lameman	**DATE DRAWN:** April 4, 2012	**FIGURE 1**
	REVISIONS BY: C Lameman	**DATE REVISED:** April 4, 2012	**TOPOGRAPHIC SITE LOCATION MAP** ConocoPhillips MOORE LS 5B SAN JUAN COUNTY, NEW MEXICO SW¼, NW¼, SECTION 24, T32N, R12W N36 97336, W108.05324
	CHECKED BY: T. Long	**DATE CHECKED:** April 4, 2012	
	APPROVED BY: R Kennemer	**DATE APPROVED:** April 4, 2012	



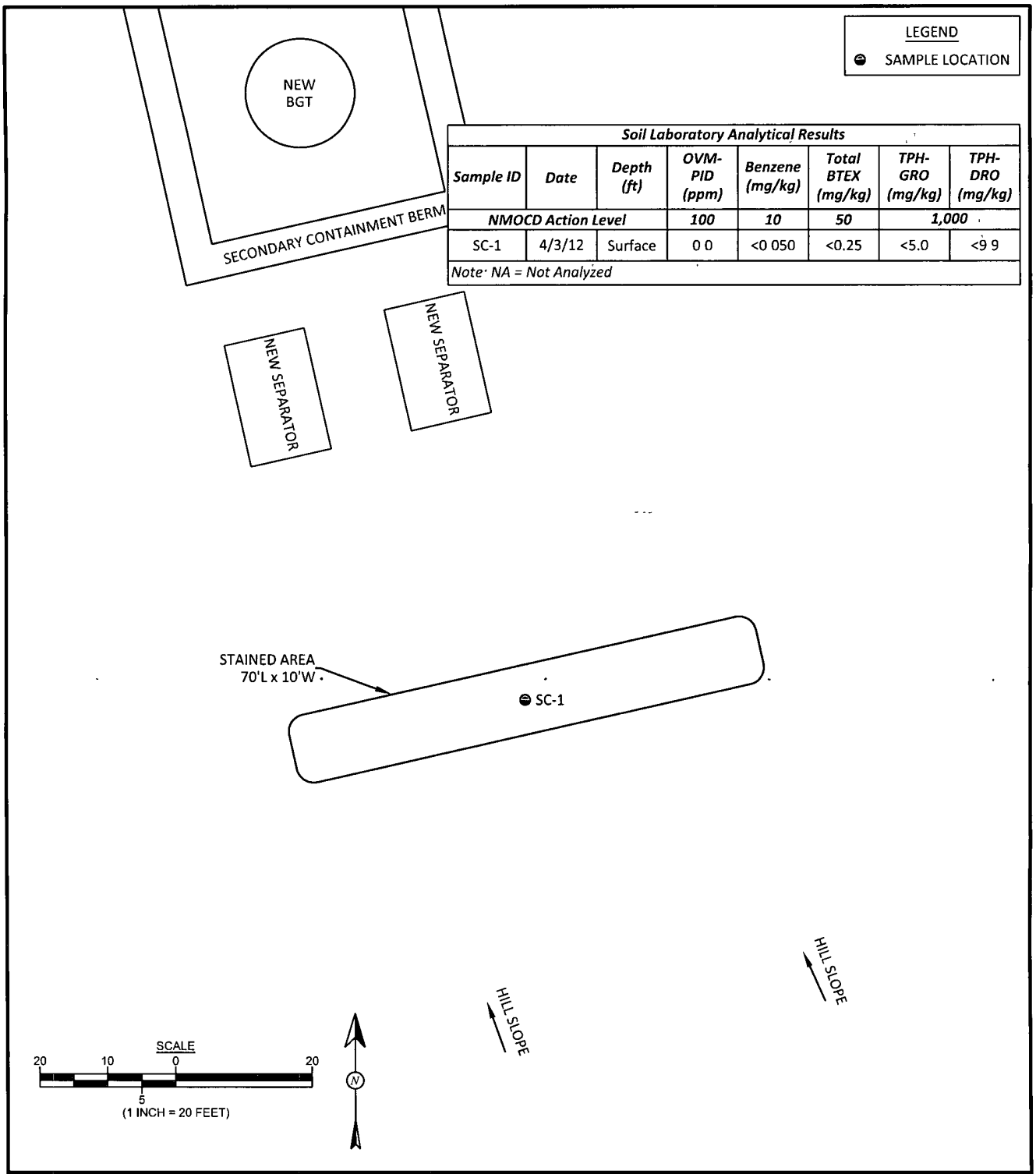
Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** April 4, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** April 4, 2012
CHECKED BY: T. Long	**DATE CHECKED:** April 4, 2012
APPROVED BY: R. Kennemer	**DATE APPROVED:** April 4, 2012

FIGURE 2

AERIAL SITE LOCATION MAP

ConocoPhillips
MOORE LS 5B
SAN JUAN COUNTY, NEW MEXICO
SW¼, NW¼, SECTION 24, T32N, R12W
N36.97336, W108.05324



Soil Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD Action Level			100	10	50	1,000	
SC-1	4/3/12	Surface	0 0	<0 050	<0.25	<5.0	<9 9
Note: NA = Not Analyzed							

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: April 4, 2012	**FIGURE 3**
REVISIONS BY: C. Lameman	DATE REVISED: April 4, 2012	**SAMPLE LOCATION AND RESULTS APRIL 2012**
CHECKED BY: T Long	DATE CHECKED: April 4, 2012	ConocoPhillips MOORE LS 5B SAN JUAN COUNTY, NEW MEXICO SW¼, NW¼, SECTION 24, T32N, R12W N36.97336, W108.05324
APPROVED BY: R Kennemer	DATE APPROVED: April 4, 2012	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 05, 2012

Ross Kennemer

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: CoP Moore LS 5B OrderNo.: 1204145

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/4/2012 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.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1204145**
Date Reported **4/5/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: CoP Moore LS 5B
Lab ID: 1204145-001

Client Sample ID: SC-1
Collection Date: 4/3/2012 11:02:00 AM
Matrix: MEOH (SOIL)
Received Date: 4/4/2012 9:49:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst **JMP**
Diesel Range Organics (DRO)	ND	9 9		mg/Kg	1	4/4/2012 12 05 16 PM
Surr DNOP	84 2	77 4-131		%REC	1	4/4/2012 12 05 16 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst **NSB**
Gasoline Range Organics (GRO)	ND	5 0		mg/Kg	1	4/4/2012 11 33 27 AM
Surr BFB	94 4	69 7-121		%REC	1	4/4/2012 11 33 27 AM
EPA METHOD 8021B: VOLATILES						Analyst **NSB**
Benzene	ND	0 050		mg/Kg	1	4/4/2012 11 33 27 AM
Toluene	ND	0 050		mg/Kg	1	4/4/2012 11 33 27 AM
Ethylbenzene	ND	0 050		mg/Kg	1	4/4/2012 11 33 27 AM
Xylenes, Total	ND	0 10		mg/Kg	1	4/4/2012 11 33 27 AM
Surr 4-Bromofluorobenzene	91 1	80-120		%REC	1	4/4/2012 11 33 27 AM

Qualifiers:

*/X	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
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#: **1204145**

05-Apr-12

Client: Animas Environmental Services

Project: CoP Moore LS 5B

Sample ID **MB-1369**	SampType. **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **1369**	RunNo: **1889**
Prep Date: **4/4/2012**	Analysis Date. **4/4/2012**	SeqNo: **52862** 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	8.2		10.00		82.2	77.4	131			

Sample ID **LCS-1369**	SampType: **LCS**	TestCode. **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **1369**	RunNo. **1889**
Prep Date: **4/4/2012**	Analysis Date: **4/4/2012**	SeqNo: **52877** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83 4	62.7	139			
Surr DNOP	4.0		5.000		79.7	77.4	131			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204145**

05-Apr-12

Client: Animas Environmental Services

Project: CoP Moore LS 5B

Sample ID **MB-1361**	SampType **MBLK**	TestCode **EPA Method 8015B: Gasoline Range**
Client ID **PBS**	Batch ID **1361**	RunNo **1907**
Prep Date **4/3/2012**	Analysis Date **4/4/2012**	SeqNo **53409** 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	980		1,000		97.8	69.7	121			

Sample ID **LCS-1361**	SampType **LCS**	TestCode **EPA Method 8015B: Gasoline Range**
Client ID **LCSS**	Batch ID **1361**	RunNo **1907**
Prep Date **4/3/2012**	Analysis Date **4/4/2012**	SeqNo **53410** Units **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	25.00	0	124	98.5	133			
Surr: BFB	1,100		1,000		107	69.7	121			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204145**

05-Apr-12

Client: Animas Environmental Services

Project: CoP Moore LS 5B

Sample ID **MB-1361**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **1361**	RunNo: **1908**
Prep Date. **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53510** 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	0.95		1.000		95 3	80	120			

Sample ID **LCS-1361**	SampType. **LCS**	TestCode **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **1361**	RunNo. **1908**
Prep Date: **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53511** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	91.5	83.3	107			
Toluene	0 92	0.050	1.000	0	91.8	74.3	115			
Ethylbenzene	0.91	0 050	1.000	0	91.2	80 9	122			
Xylenes, Total	2.7	0.10	3.000	0	91.5	85.2	123			
Surr. 4-Bromofluorobenzene	0.96		1.000		96.4	80	120			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name **Animas Environmental** Work Order Number: **1204145**

Received by/date: AG 04/04/12

Logged By. **Michelle Garcia** **4/4/2012 9:49:00 AM** Michelle Garcia

Completed By: **Michelle Garcia** **4/4/2012 9:59:51 AM** Michelle Garcia

Reviewed By: 04/04/12

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?	GREYHOUND		

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	# of preserved bottles checked for pH.
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization)	Yes ✔	No	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	2.8	Good	Yes			

Chain-of-Custody Record

Client:	Animas Environmental Services
Mailing Address:	624 E Comanche Farmington NM Farmington, NM 87401
Phone #:	505-564-2281
email or Fax#:	505-324-2022
QA/QC Package:	X Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other
☐ EDD (Type)	

☐ Standard X Rush: SAME DAY

Project Name: CoP Moore LS 5B

Project #:

Project Manager: Ross Kennemer

Sampler: Thomas Long

On Ice: X Yes ☐ No

Sample Temperature: 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1204158	8021 BTEX	8015 DRO/GRO
4/3/2012	11:02	Soil	SC-1	4 oz Jar/40 ml VOAs	Ice/Methanol	-001	x	x

Date:	Time:	Relinquished by:	Received by:	Date	Time
4-3-12	1535	Thomas Long	Christine Walters	4/3/12	1535
4/3/12	1627	Christine Walters		04/04/12	0949

Remarks: Bill Conoco Phillips
WO: 8941988 User ID: GARRECD
Area: 1 ordered by: Ashley Maxwell
Supervisor: Richard Lopez