

APR 10 2014

Form C-141
Revised August 8, 2011

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

Submit to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	ConocoPhillips Company	Contact	
Address	3300 N. 'A' St., Bldg 6 #247, Midland, TX 79705	Telephone No.	
Facility Name	SEMU Permian Skaggs Pool Water Line	Facility Type	Produced water transfer line
Surface Owner	New Mexico	Mineral Owner	BLM
		API No.	30-025-06248

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	24	20S	37E	1980	South	1980	West	Lea

Latitude N 32 33.4038 Longitude W 103 12.4260

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	370	Volume Recovered	340
Source of Release	PW transfer line	Date and Hour of Occurrence	5/27/12 8:30 am	Date and Hour of Discovery	5/27/13 9 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	E.L. Gonzales		
By Whom?	Jesus A Sosa		Date and Hour	May 28, 2012 8:35 am	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Leak on a 4" fiberglass line (30+ years) that had a Victaulic clamp bolt corroded and broken causing produced water to be released. MSO notified immediate supervisor and called for a vacuum truck. Total recovered fluid was 340 BPW.

Describe Area Affected and Cleanup Action Taken.* The release affected approximately 2,700 square feet of pasture land. RECS took over the site on June 19th, 2013 from another environmental company. Prior to RECS acquiring the site, the previous environmental company conducted a soil bore installation at the site on October 17th, 2012. One soil bore was installed to a depth of 70 ft bgs. Laboratory sampling showed chloride levels that dropped to 576 mg/kg at 60 ft bgs and 224 mg/kg at 70 ft bgs. Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings were either non-detect or below regulatory standards. Based on the soil bore analysis, the previous environmental company created a Work Plan for the site. When RECS acquired the site, the area had already been excavated to 80 ft x 60 ft to a depth of 10 ft bgs. RECS personnel field tested the walls of the excavation and found that the field chloride readings were above regulatory standards. Based on the wall field data, the excavation was expanded to 87 ft x 79 ft. The walls were again field sampled for chlorides and although the results were lower, they were still found to be above regulatory standards. Based on the elevated wall sampling data, RECS submitted an Addendum to the Work Plan on July 19th, 2013 to NMOCD. On August 19th, 2013, NMOCD approved the Addendum to the Work Plan. On October 31st, 2013, a 20-mil reinforced poly liner was installed and properly seated into the base of the 10 ft excavation. The excavation was then expanded to dimensions of 92 ft x 89 ft at 5 ft bgs and that soil was used to backfill the excavation to 5 ft bgs. Wall samples from the west, south and east wall to a depth of 3 ft bgs were taken from the 92 ft x 89 ft excavation. Representative samples were sent to a commercial laboratory for analysis. All wall samples returned chloride laboratory results below regulatory standards. The sand dunes to the west and east of the excavation were also sampled and a 5 point composite of each dune was taken to a commercial laboratory for analysis. Both sand dunes returned laboratory chloride results of non-detect. At 5 ft bgs, another 20-mil reinforced poly liner was installed and properly seated into the base of the 92 ft x 89 ft excavation. The remaining sand dunes and 1,428 yards of imported soil were used to backfill the excavation to ground surface and to contour the area to the surrounding location. A sample of the imported soil was taken to a commercial laboratory and returned a result of non-detect. On February 18th, 2014, the site was seeded with BLM mix #2.

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:	<i>Jose A. Zepeda</i>	OIL CONSERVATION DIVISION	
Printed Name:	Jose A. Zepeda	Environmental Specialist	
Title:	Lead HSE	Approval Date:	4/10/14
E-mail Address:		Expiration Date:	—
Date:	3-20-14	Conditions of Approval:	—
Phone:	391-3165	Attached <input type="checkbox"/>	IRP-5-12-2817

* Attach Additional Sheets If Necessary

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Santa Fe, NM 87505

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

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Facility Name SEMU Permian Skaggs Pool Water Line	Facility Type Produced water transfer line
Surface Owner New Mexico	Mineral Owner BLM
API No. 30-025-06248	

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Signature: <i>Jose A. Zepeda</i>	OIL CONSERVATION DIVISION <i>Jose A. Zepeda</i> Environmental Specialist	
Printed Name: Jose A. Zepeda	Approved by Environmental Specialist	
Title: Lead HSE	Approval Date: 4/10/14	Expiration Date: —
E-mail Address:	Conditions of Approval: —	Attached <input type="checkbox"/>
Date: 3-20-14 Phone: 391-3165	WRP-5-12-2817	

* Attach Additional Sheets If Necessary



HOBBS OCD

APR 10 2014

RECEIVED

CONOCOPHILLIPS

P.O. Box 2197
Houston, TX 77252-2197
Phone 281.293.1000

SEMU Permian Skaggs Pool Water Line (1RP-5-12-2817)

Termination Request

API 30-025-06248

Release Date: May 27th, 2012

Unit Letter K, Section 24, Township 20S, Range 37E

Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241

Phone 575.393.2967

March 28th, 2014

Geoffrey Leking

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 1

1625 N. French Dr.

Hobbs, NM 88240-9273

RE: Termination Request

ConocoPhillips SEMU Permian Skaggs Pool Water Line

(IRP-5-12-2817)

UL/K sec. 24 T20S R37E

API No. 30-025-06248

Mr. Leking:

ConocoPhillips (CoP) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 8.5 miles north of Eunice, New Mexico at UL/K sec. 24 T20S R37E. NM OSE records indicate that groundwater will likely be encountered at a depth of approximately 90 - 100 +/- feet.

On May 27th, 2012, CoP discovered a release of produced water from a 4 inch fiberglass transfer line. A clamp on the line corroded and broke releasing a total of 370 barrels of produced water over approximately 2,700 square feet of pasture land. A vacuum truck was called to the site and recovered 340 barrels of produced water. NMOCD was notified of the release on May 28th, 2012 and an initial C-141 was approved by NMOCD on May 30th, 2012 (Appendix A).

RECS took over the site on June 19th, 2013 from another environmental company. Prior to RECS acquiring the site, the previous environmental company conducted a soil bore installation at the site on October 17th, 2012. One soil bore was installed to a depth of 70 ft bgs. As the bore was advanced, samples were taken by split spoon and sent to a commercial laboratory for analysis (Figure 1). Laboratory sampling showed chloride levels that dropped to 576 mg/kg at 60 ft bgs and 224 mg/kg at 70 ft bgs. Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings were either non-detect or below regulatory standards (Appendix B).

Based on the soil bore analysis, the previous environmental company created a Work Plan for the site. In the Work Plan, the site was to be excavated to 10 ft bgs across entire spill area, generating approximately 1,444 cubic yards of impacted material. The excavated material was to be disposed of at an NMOCD approved facility. Once the

excavation was completed, clay would be imported to the site and 2 feet of clay would be installed into the base of the excavation. The site would be backfilled with clean, imported top soil, re-contoured to the surrounding area and seeded.

When RECS acquired the site, the area had already been excavated to 80 ft x 60 ft to a depth of 10 ft bgs. RECS personnel field tested the walls of the excavation and found that the field chloride readings were above regulatory standards. Based on the wall field data, the excavation was expanded to 87 ft x 79 ft. The walls were again field sampled for chlorides and although the results were lower, they were still found to be above regulatory standards.

Based on the elevated wall sampling data, RECS submitted an Addendum to the Work Plan on July 19th, 2013 to NMOCD. In the Addendum, CoP proposed to install and properly seat a 20-mil reinforced poly liner at the base of the 10 ft excavation. The excavation would then be shelved at 5 ft bgs to dimensions of 92 ft x 89 ft. The site would be shelved 5 ft south, east and west and would not extend to the north to avoid the 4 inch fiberglass line. The excavated soil from the shelves and the surrounding sand dunes would be used to backfill the excavation to 5 ft bgs. At 5 ft bgs, another 20-mil reinforced poly liner would be installed and properly seated into this excavation. Clean soil would be imported to the site to backfill the excavation to surface level and contour it to the surrounding location (Figure 2). The site would be seeded with a blend of native vegetation. Vegetation above the liner would also provide a natural infiltration barrier for the site since plants capture water through their roots thereby reducing the volume of water moving through the vadose zone to groundwater.

On August 19th, 2013, NMOCD approved the Addendum to the Work Plan. On October 31st, 2013, a 20-mil reinforced poly liner was installed and properly seated into the base of the 10 ft excavation. The excavation was then expanded to dimensions of 92 ft x 89 ft at 5 ft bgs and that soil was used to backfill the excavation to 5 ft bgs. Wall samples from the west, south and east wall to a depth of 3 ft bgs were taken from the 92 ft x 89 ft excavation (Figure 3). Representative samples were sent to a commercial laboratory for analysis (Appendix C). All wall samples returned chloride laboratory results below regulatory standards. The sand dunes to the west and east of the excavation were also sampled and a 5 point composite of each dune was taken to a commercial laboratory for analysis. Both sand dunes returned laboratory chloride results of non-detect.

At 5 ft bgs, another 20-mil reinforced poly liner was installed and properly seated into the base of the 92 ft x 89 ft excavation. The remaining sand dunes and 1,428 yards of imported soil were used to backfill the excavation to ground surface and to contour the area to the surrounding location. A sample of the imported soil was taken to a commercial laboratory and returned a result of non-detect. On February 18th, 2014, the site was seeded with BLM mix #2.

Photo documentation of all activities can be found in Appendix D.

Given that CoP completed the activities as stated in the NMOCD approved Work Plan, CoP respectfully requests 'remediation termination' and site closure. A final C-141 will be found in Appendix E.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,



Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

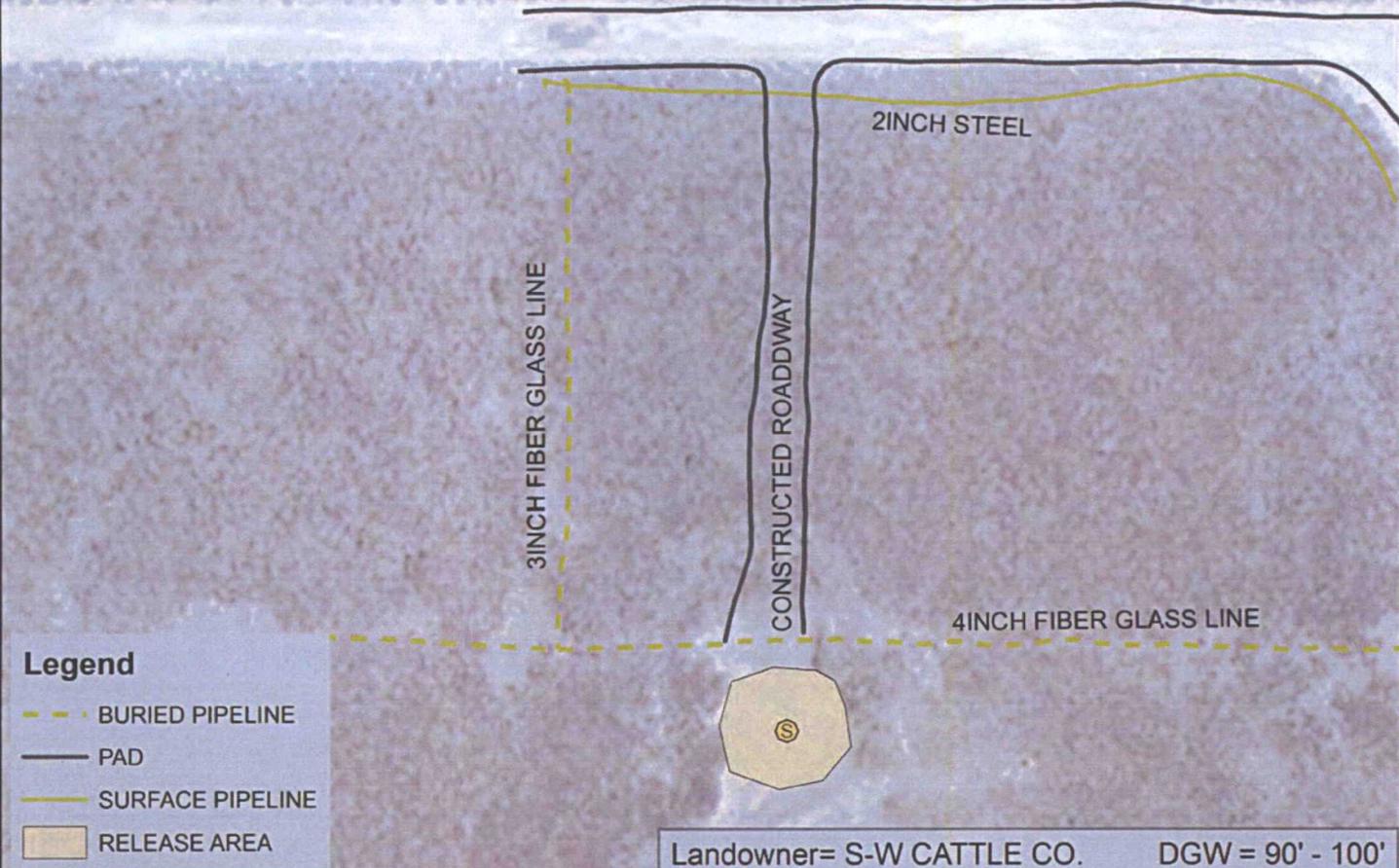
- Figure 1 – Soil Bore Installation
- Figure 2 – Proposed Excavation and Liner Installation
- Figure 3 – Final Sampling Data
- Appendix A – Initial C-141
- Appendix B – Soil Bore Installation Lab
- Appendix C – Addendum to Work Plan Labs
- Appendix D – Photo Documentation
- Appendix E – Final C-141

Soil Bore Installation

Soil Bore #1

Laboratory Analyses

Depth	Cl-	GRO	DRO	B	T	E	X
5'	1280	<10	<10	<0.05	<0.05	<0.05	<0.15
10'	752	<10	101	<0.05	<0.05	<0.05	<0.15
15'	160	<10	11.7	<0.05	<0.05	<0.05	<0.15
20'	176	<10	55.2	<0.05	<0.05	<0.05	<0.15
30'	1150	<10	44.2	<0.05	<0.05	<0.05	<0.15
40'	1440	<50	60	<0.05	<0.05	<0.05	<0.15
50'	1010	<10	139	<0.05	<0.05	<0.05	<0.15
60'	576	<10	53.7	<0.05	<0.05	<0.05	<0.15
70'	224	<10	<10	<0.05	<0.05	<0.05	<0.15



Legend

- - - BURIED PIPELINE
- PAD
- SURFACE PIPELINE
- RELEASE AREA

Landowner= S-W CATTLE CO.

DGW = 90' - 100'

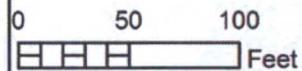


CONOCOPHILLIPS SEMU PERMIAN SKAGGS POOL WATER LINE

(1RP-5-12-2817)

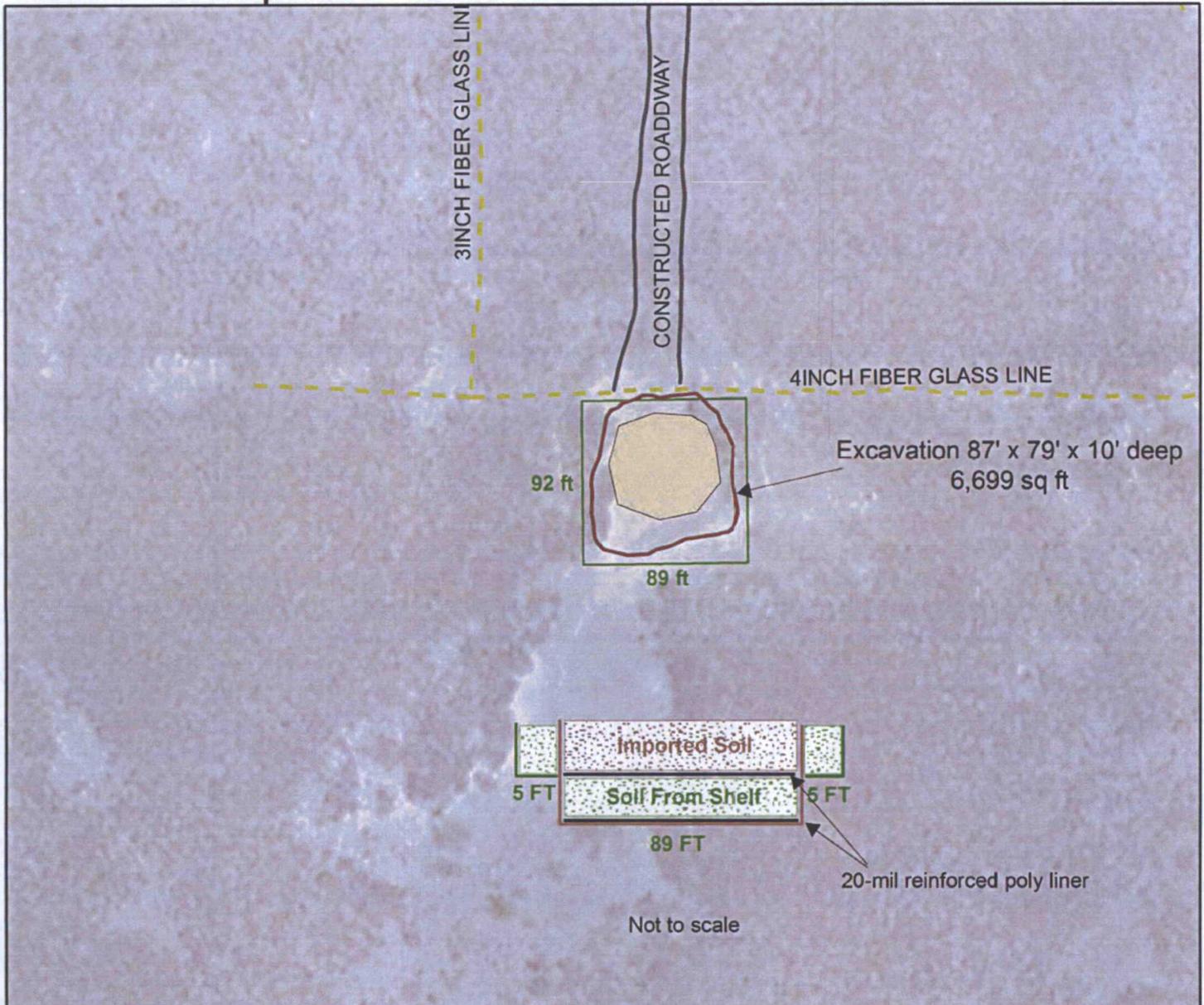
LEGALS: UL/F Sec. 24
T20S - R37E
LEA COUNTY, NM

Figure 1



GPS date: 6/19/2013 KN, 6/24/2013 KN
Drawing date: 7/16/13
Drafted by: L. Weinheimer

Proposed Excavation and Liner Installation



Legend

- EXCAVATION 6/24/13
- BURIED PIPELINE
- PAD
- SURFACE PIPELINE
- SCRAPE
- PROPOSED EXCAVATION
- APPROXIMATE INITIAL RELEASE 2013 (3,000 sq ft)

Landowner= S-W CATTLE CO.

DGW = 90' - 100'



**CONOCOPHILLIPS SEMU
PERMIAN SKAGGS
POOL WATER LINE**

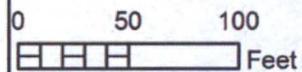
(1RP-5-12-2817)

LEGALS: UL/F Sec. 24

T20S - R37E

LEA COUNTY, NM

Figure 2

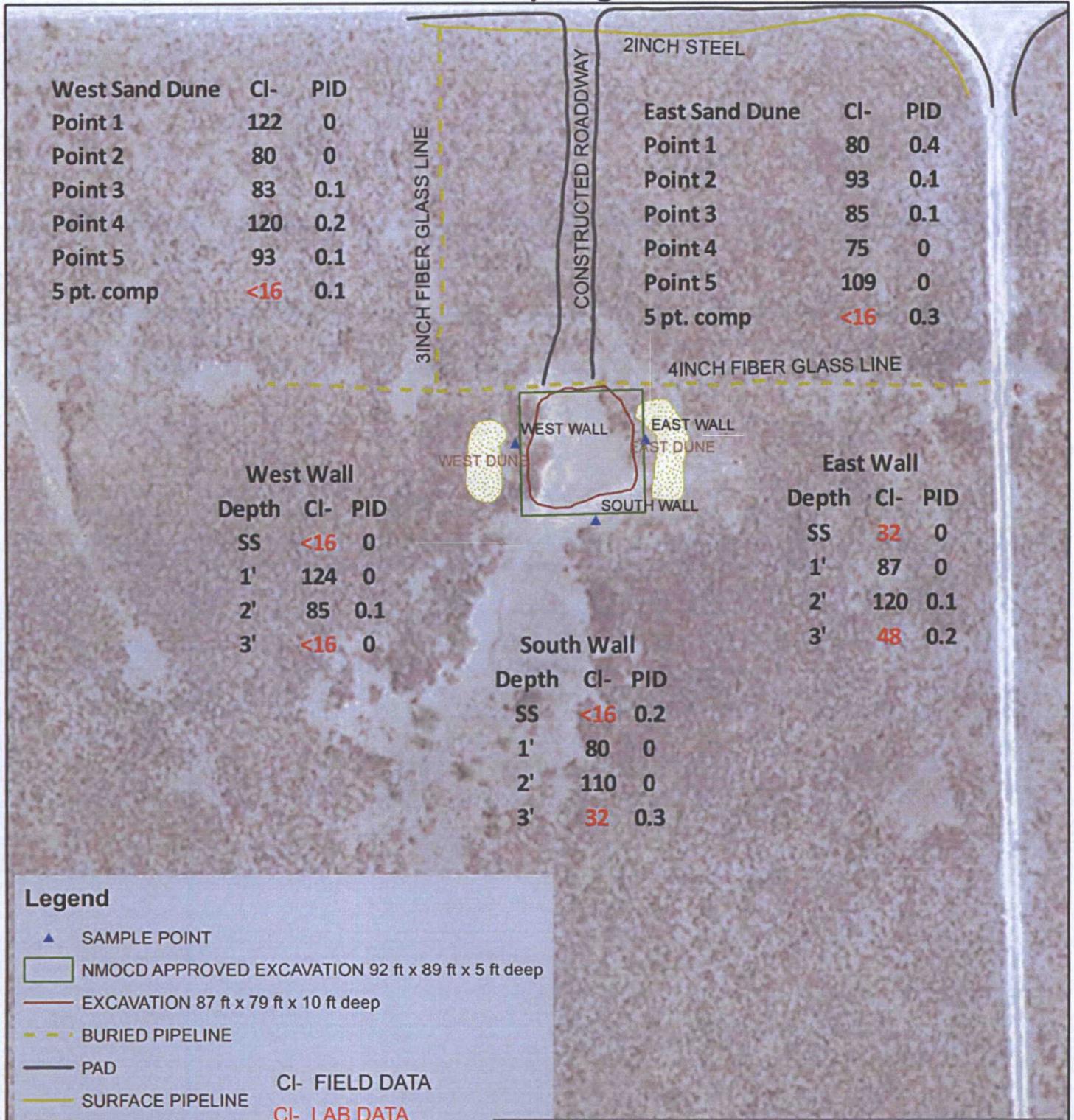


GPS date: 6/19/2013 KN, 6/24/2013 KN

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Drafted by: L. Weinheimer

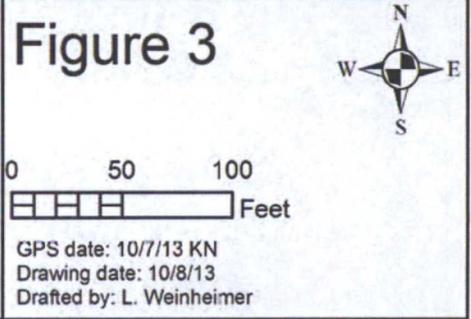
Final Sampling Data



Landowner = S-W CATTLE CO. DGW = 90' - 100'



**CONOCOPHILLIPS SEMU
PERMIAN SKAGGS
POOL WATER LINE**
(1RP-5-12-2817)
LEGALS: UL/F Sec. 24
T20S - R37E
LEA COUNTY, NM



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HOBBS OCD

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Energy Minerals and Natural Resources

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MAY 29 2012

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

Submit 1 Copy to appropriate District Office in
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Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company ConocoPhillips Company	Contact Jesse A. Sosa
Address 3300 N. "A" St., Bldg. 6 #247 Midland, TX 79705-5	Telephone No. (505)391-3126
Facility Name SEMU Permian Skaggs Pool Water Line	Facility Type Produced water transfer line
Surface Owner New Mexico	Mineral Owner BLM API No. 30-025-06248

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
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If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

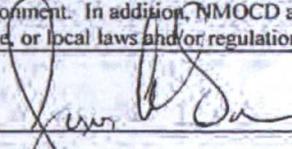
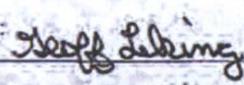
Leak on a 4" fiberglass line (30+ years) that had a Victaulic clamp bolt corroded and broken causing produced water to be released. MSO notified immediate supervisor and called for a vacuum truck. Total recovered fluid was 340 BPW

Describe Area Affected and Cleanup Action Taken.*

Area of release is approximately 30 feet X 90 feet all on pasture. Are will be delineated and a work plan submitted to NMOCD for approval.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Jesse A. Sosa	Approval Date: 5/30/12	Expiration Date: 7/30/12
Title: HSER Lead	Conditions of Approval: SUBMIT FINAL C-141 BY 7/30/12	
E-mail Address: Jesse.A.Sosa@conocophillips.com	Date: 5/29/2012 Phone: (505)391-3126	Attached <input type="checkbox"/> IRP-5-12-2817

* Attach Additional Sheets If Necessary

MAY 30 2012



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 23, 2012

JUSTIN ROBERTS

DIAMONDBACK DISPOSAL SERVICE INC.

P. O. BOX 2491

HOBBS, NM 88241

RE: SEMU PERMIAN WATERFLOOD

Enclosed are the results of analyses for samples received by the laboratory on 10/17/12 13:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 5' BGS (H202537-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02	
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23	
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55	
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13	

Surrogate: 4-Bromofluorobenzene (PII) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	10/19/2012	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8	
DRO >C10-C28	<10.0	10.0	10/19/2012	ND	178	88.9	200	13.5	

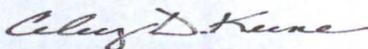
Surrogate: 1-Chlorooctane 79.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 85.2 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 10' BGS (H202537-02)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PII) 99.2 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	101	10.0	10/19/2012	ND	178	88.9	200	13.5		

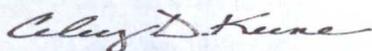
Surrogate: 1-Chlorooctane 79.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 87.9 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

Received:	10/17/2012	Sampling Date:	10/17/2012
Reported:	10/23/2012	Sampling Type:	Soil
Project Name:	SEMU PERMIAN WATERFLOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EUNICE, NEW MEXICO		

Sample ID: SB 1 - 15' BGS (H202537-03)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PII) 97.6 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	11.7	10.0	10/19/2012	ND	178	88.9	200	13.5		

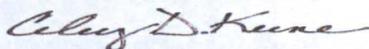
Surrogate: 1-Chlorooctane 78.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 84.8 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 20' BGS (H202537-04)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PIC) 99.6 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	55.2	10.0	10/19/2012	ND	178	88.9	200	13.5		

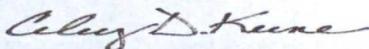
Surrogate: 1-Chlorooctane 72.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 77.8 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 30' BGS (H202537-05)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PIE) 97.9 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	44.2	10.0	10/19/2012	ND	178	88.9	200	13.5		

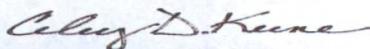
Surrogate: 1-Chlorooctane 76.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 82.0 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 40' BGS (H202537-06)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PII) 99.2 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	60.0	50.0	10/19/2012	ND	178	88.9	200	13.5		

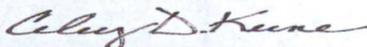
Surrogate: 1-Chlorooctane 74.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 82.8 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 50' BGS (H202537-07)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PIE) 97.5 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	139	10.0	10/19/2012	ND	178	88.9	200	13.5		

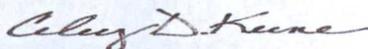
Surrogate: 1-Chlorooctane 78.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.1 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 60' BGS (H202537-08)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2012	ND	2.50	125	2.00	5.02		
Toluene*	<0.050	0.050	10/20/2012	ND	2.54	127	2.00	4.23		
Ethylbenzene*	<0.050	0.050	10/20/2012	ND	2.57	129	2.00	5.55		
Total Xylenes*	<0.150	0.150	10/20/2012	ND	7.74	129	6.00	5.13		

Surrogate: 4-Bromofluorobenzene (PII) 98.4 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	53.7	10.0	10/19/2012	ND	178	88.9	200	13.5		

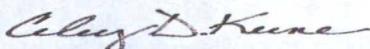
Surrogate: 1-Chlorooctane 75.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 80.6 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 DIAMONDBACK DISPOSAL SERVICE INC.
 JUSTIN ROBERTS
 P. O. BOX 2491
 HOBBS NM, 88241
 Fax To: (575) 392-9376

 Received: 10/17/2012
 Reported: 10/23/2012
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: NONE GIVEN
 Project Location: EUNICE, NEW MEXICO

 Sampling Date: 10/17/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB 1 - 70' BGS (H202537-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/22/2012	ND	1.98	99.0	2.00	2.23		
Toluene*	<0.050	0.050	10/22/2012	ND	2.15	108	2.00	2.85		
Ethylbenzene*	<0.050	0.050	10/22/2012	ND	2.16	108	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/22/2012	ND	6.54	109	6.00	2.75		

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	10/19/2012	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/19/2012	ND	182	91.2	200	12.8		
DRO >C10-C28	<10.0	10.0	10/19/2012	ND	178	88.9	200	13.5		

Surrogate: 1-Chlorooctane 77.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 79.0 % 63.6-154

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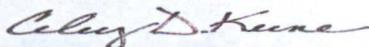
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

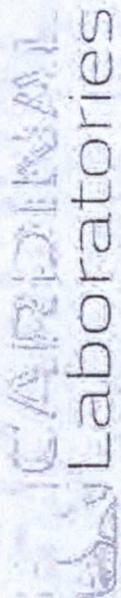
Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Diamondback L Disposal Serv. Inc Project Manager: Justin Roberts Address: PO Box 2491 City: Hobbs State: NM Zip: 88241 Phone #: 392-9991 Project #: N/A Project Name: SEMU PERMIN WATERLOD Project Location: Eunile Sampler Name: Justin Roberts		BILL TO P.O. #: Company: Altin: Address: City: State: Phone #: Fax #:		ANALYSIS REQUEST		
Lab I.D.: HDD233 1 581 - 5' BGS 2 581 - 10' BGS 3 581 - 15' BGS 4 581 - 20' BGS 5 581 - 30' BGS 6 581 - 40' BGS 7 581 - 50' BGS 8 581 - 60' BGS 9 581 - 70' BGS	MATRIX <input type="checkbox"/> SOIL <input type="checkbox"/> WASTEWATER <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> # CONTAINERS <input type="checkbox"/> (GRAV OR COMP)		PRESERV <input type="checkbox"/> ACIDWASE <input type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER:		SAMPLING DATE TIME 11/12 11:00 " " 11:34 " " 11:42 " " 11:47 " " 11:51 " " 11:55 " " 11:59 " " 12:01 " " 12:06	
	<input type="checkbox"/> SLUDGE <input type="checkbox"/> OIL <input type="checkbox"/> WASTEWATER <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> # CONTAINERS <input type="checkbox"/> (GRAV OR COMP)		<input type="checkbox"/> ACIDWASE <input type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER:		<input type="checkbox"/> TPH <input type="checkbox"/> BTEX <input type="checkbox"/> CI	

PLEASE NOTE: This is a Chain of Custody form for use only in the event of a spill or release. It is not to be used for any other purpose. The user is responsible for ensuring that the information provided is accurate and complete. In the event of a spill or release, the user must immediately notify the appropriate authorities and provide a copy of this form to the receiving party. The user must also ensure that the form is signed by the appropriate personnel and that the samples are properly labeled and stored.

Relinquished By: [Signature]
Time: 11:35 AM
Date: 11/12/12
Received By: [Signature] Idemon
Time: [Blank]
Date: [Blank]

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other:

Sample Condition:
 Cool Intact: Yes No
 Intact: Yes No

Phone Result: Yes No
Fax Result: Yes No
ADD'l Phone #:
ADD'l Fax #:

REMARKS:
 10
 #26

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 08, 2013

HACK CONDER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: SEMU PERMIAN WATERFLOOD

Enclosed are the results of analyses for samples received by the laboratory on 10/07/13 14:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 RICE ENVIRONMENTAL CONSULTING & SAFETY
 HACK CONDER
 419 W. CAIN
 HOBBS NM, 88240
 Fax To: (575) 397-1471

 Received: 10/07/2013
 Reported: 10/08/2013
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: COP
 Project Location: NOT GIVEN

 Sampling Date: 10/07/2013
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: E WALL @ SURFACE (H302424-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2013	ND	400	100	400	3.92	

Sample ID: E WALL @ 3' (H302424-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/08/2013	ND	400	100	400	3.92	

Sample ID: W WALL @ SURFACE (H302424-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/08/2013	ND	400	100	400	3.92	

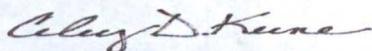
Sample ID: W WALL @ 3' (H302424-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/08/2013	ND	400	100	400	3.92	

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 RICE ENVIRONMENTAL CONSULTING & SAFETY
 HACK CONDER
 419 W. CAIN
 HOBBS NM, 88240
 Fax To: (575) 397-1471

 Received: 10/07/2013
 Reported: 10/08/2013
 Project Name: SEMU PERMIAN WATERFLOOD
 Project Number: COP
 Project Location: NOT GIVEN

 Sampling Date: 10/07/2013
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: S WALL @ SURFACE (H302424-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/08/2013	ND	400	100	400	3.92		

Sample ID: S WALL @ 3' (H302424-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/08/2013	ND	416	104	400	0.00		

Sample ID: EAST SAND DUNE (H302424-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/08/2013	ND	416	104	400	0.00		

Sample ID: WEST SAND DUNE (H302424-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/08/2013	ND	416	104	400	0.00		

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

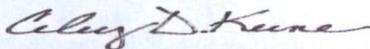
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES
 101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

Company Name: RECS **BILLTO**
Project Manager: Hack Conder
Address:
City: Hobbs **State:** NM **Zip:** 88240
Phone #: **Fax #:**
Project #: **Project Owner:**
Project Name: COP
Project Location: SEMU Permian Wax Flood
Sampler Name: Kyle Norman

Lab I.D.	Sample I.D.	MATRIX			PRESERV			DATE	TIME	ANALYSIS REQUEST							
		GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE			ICE / COOL	OTHER:	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
H302424	1	1	1	1	1	1	1	10-7-13	10:00	✓							
	2	1	1	1	1	1	1	11	10:05	✓							
	3	1	1	1	1	1	1	11	10:15	✓							
	4	1	1	1	1	1	1	11	10:20	✓							
	5	1	1	1	1	1	1	11	10:29	✓							
	6	1	1	1	1	1	1	11	10:40	✓							
	7	1	1	1	1	1	1	11	11:00	✓							
	8	1	1	1	1	1	1	11	11:30	✓							

FOR LAB USE ONLY

Relinquished By: *[Signature]* **Date:** 10-7-13
Received By: *[Signature]* **Date:** 10-7-13
Relinquished By: *[Signature]* **Date:** 10-7-13
Received By: *[Signature]* **Date:** 10-7-13

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other:

Sample Condition:
 Cool Intact
 Yes No

CHECKED BY: *[Signature]*

Phone Result: Yes No **Add'l Phone #:**
Fax Result: Yes No **Add'l Fax #:**

REMARKS:
 email results: zconder@rice-ecs.com
 Knorman@rice-ecs.com; lpena@riceswd.com
 Kjones@riceswd.com; [Redacted]
 hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-4476



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 06, 2013

HACK CONDER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: SEMU PERMIAN WATERFLOOD

Enclosed are the results of analyses for samples received by the laboratory on 11/05/13 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 RICE ENVIRONMENTAL CONSULTING & SAFETY
 HACK CONDER
 419 W. CAIN
 HOBBS NM, 88240
 Fax To: (575) 397-1471

Received:	11/05/2013	Sampling Date:	11/05/2013
Reported:	11/06/2013	Sampling Type:	Soil
Project Name:	SEMU PERMIAN WATERFLOOD	Sampling Condition:	** (See Notes)
Project Number:	COP	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

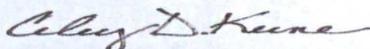
Sample ID: IMPORTED BACKFILL (H302696-01)

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/05/2013	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

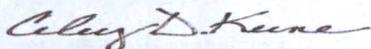
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

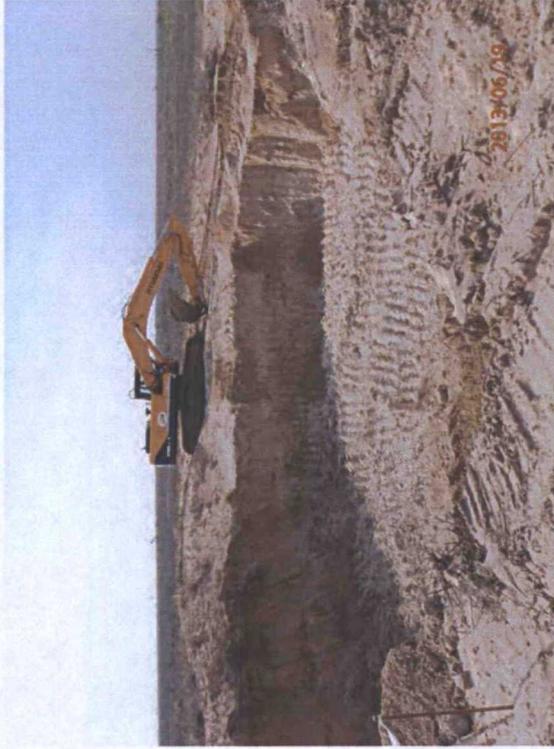
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



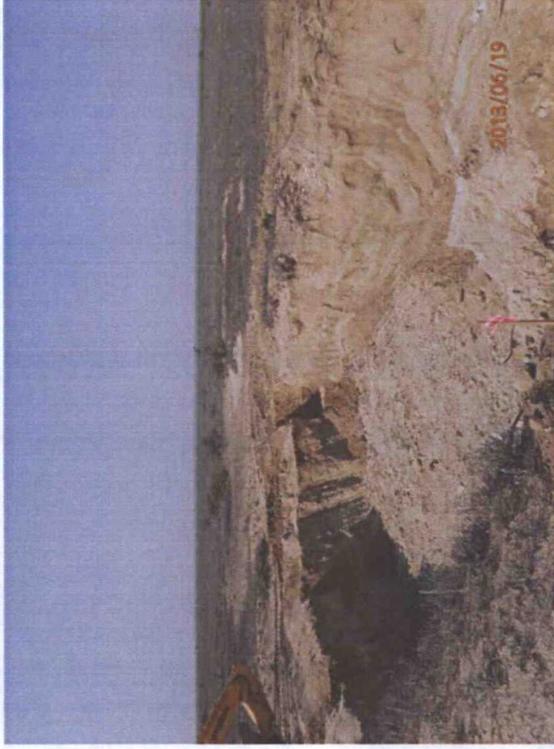
Celey D. Keene, Lab Director/Quality Manager

ConocoPhillips SEMU Permian Skaggs Pool Water Line

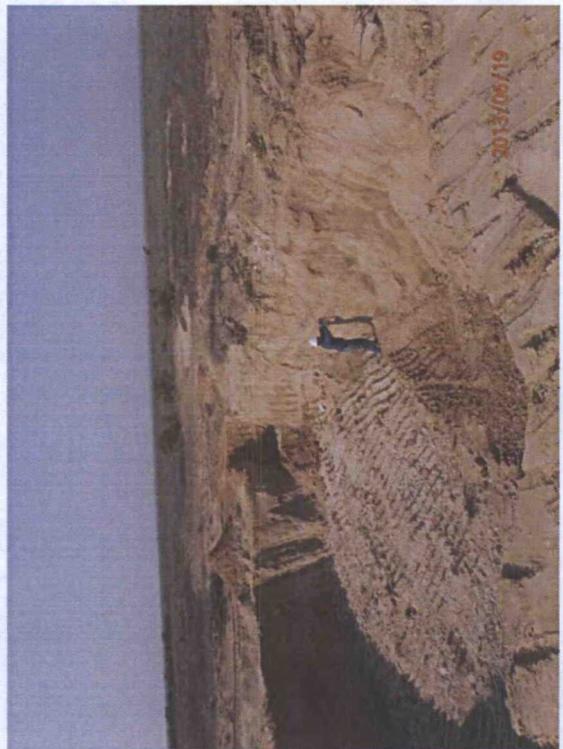
Unit Letter F, Section 24, T20S, R37E



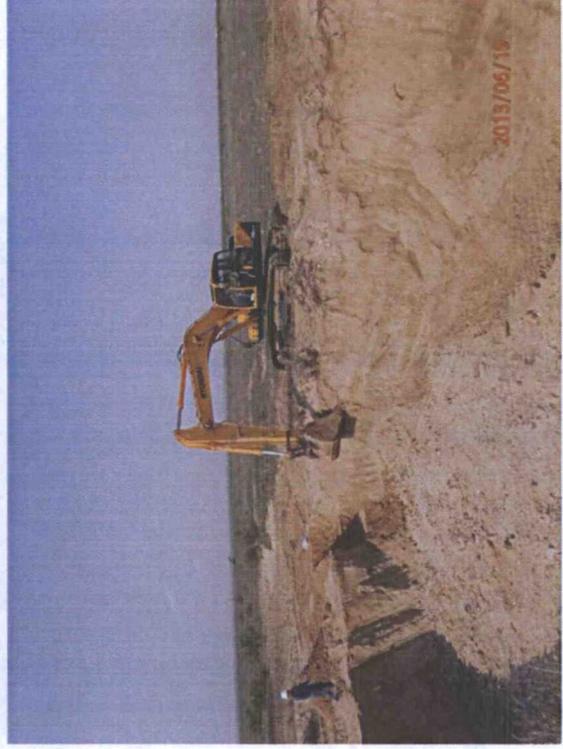
Initial excavation, facing east 6/19/13



Initial excavation, facing south-southwest 6/19/13



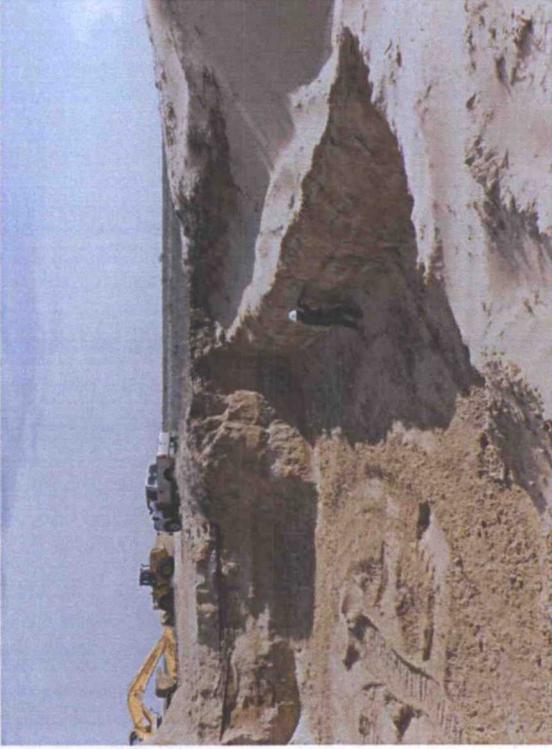
Taking wall sample, facing south 6/19/13



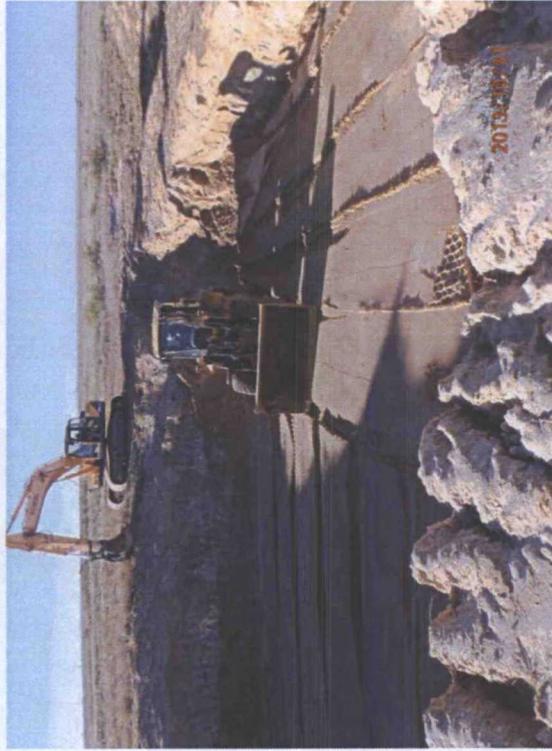
Taking wall sample, facing southwest 6/19/13



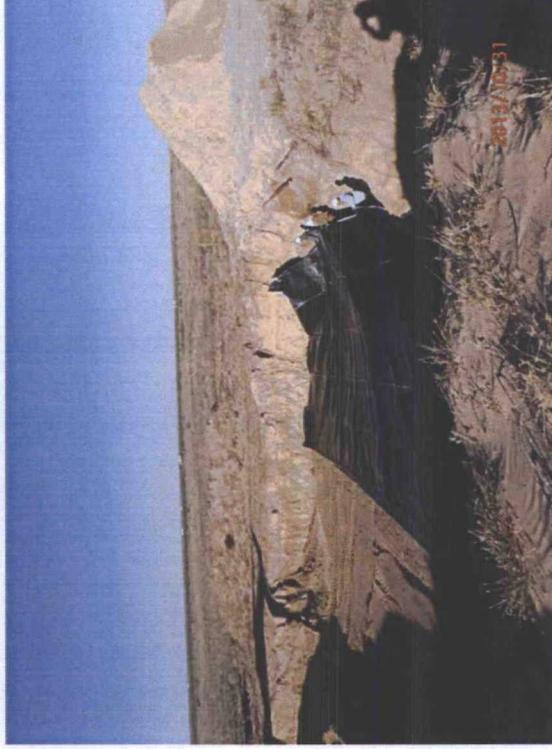
Excavation, facing south-southeast 6/24/13



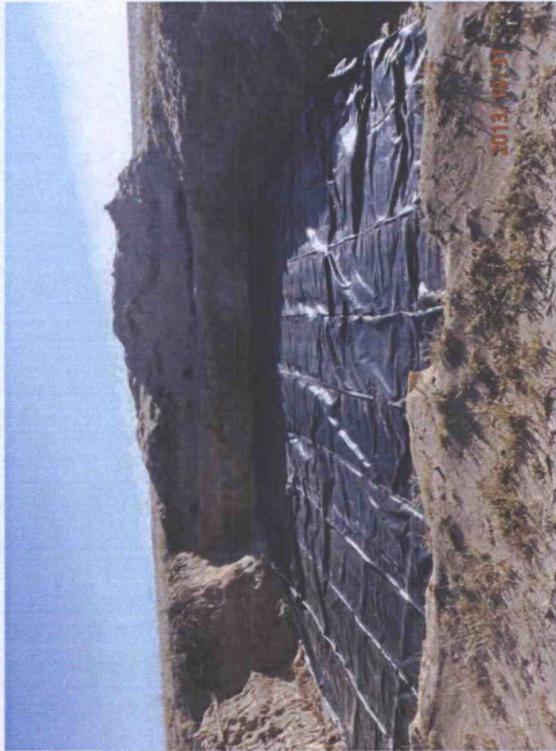
Sampling excavation, facing north 6/24/13



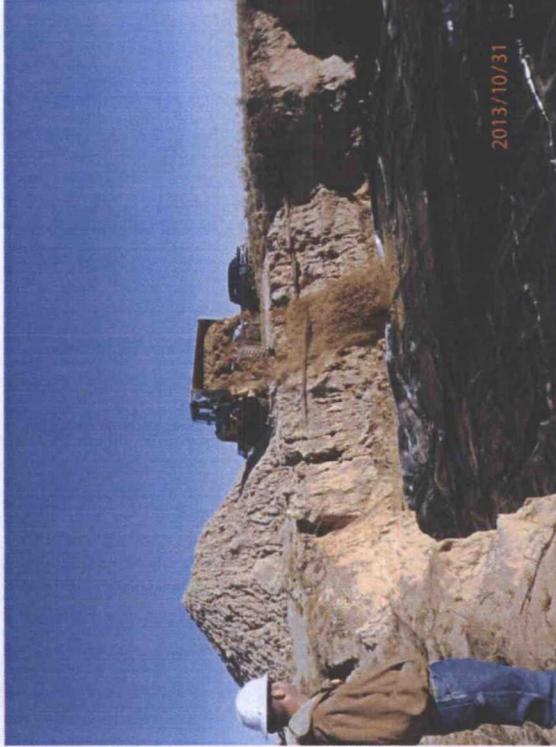
Padding the base of the excavation for liner installation, facing south 10/31/13



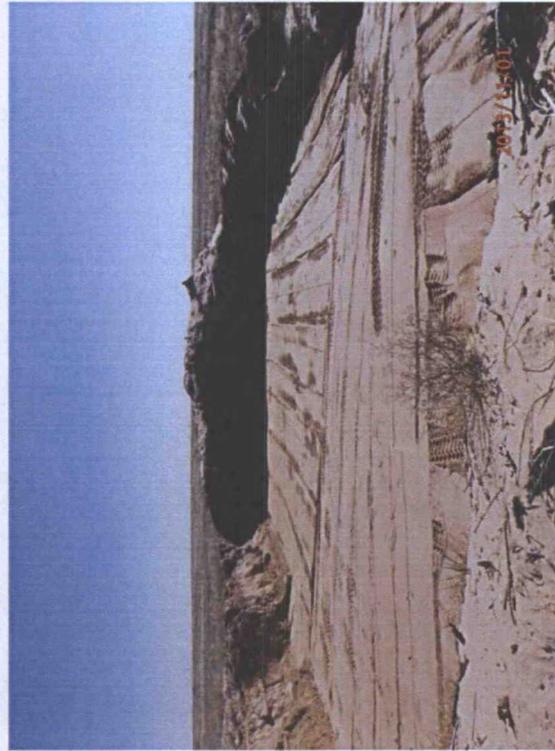
Installing 20-mil poly liner at 10 ft bgs, facing west 10/31/13



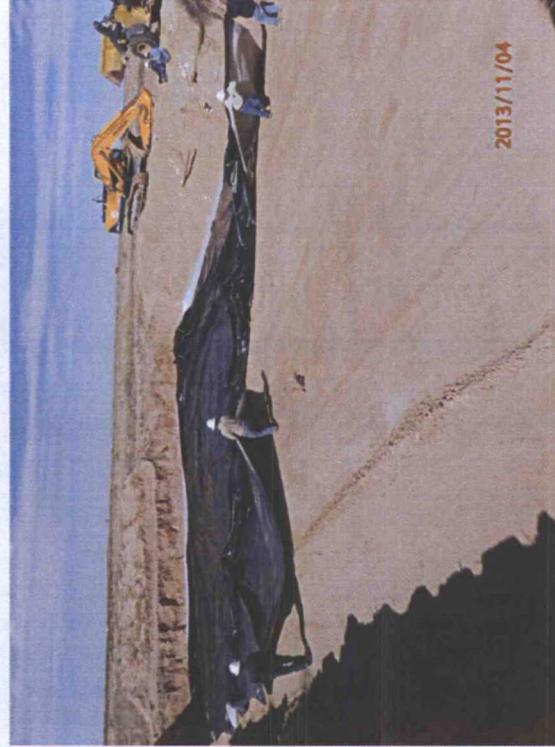
Liner installation at 10 ft bgs completed, facing east
10/31/13



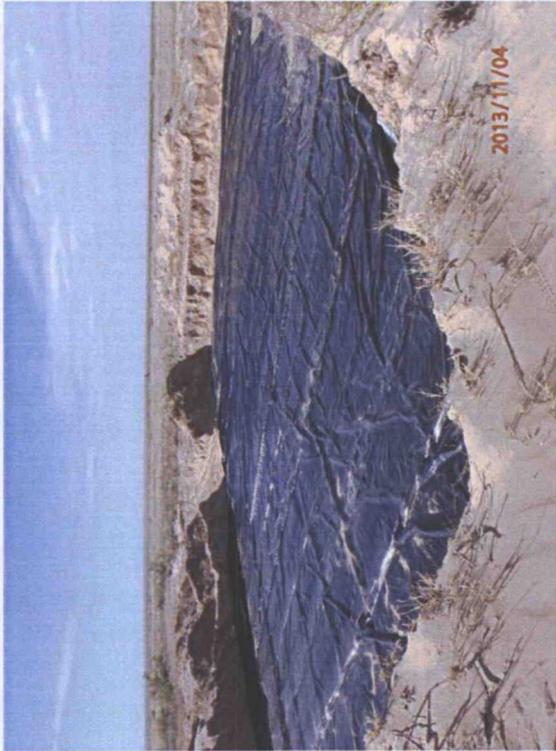
Backfilling over the liner, facing north
10/31/13



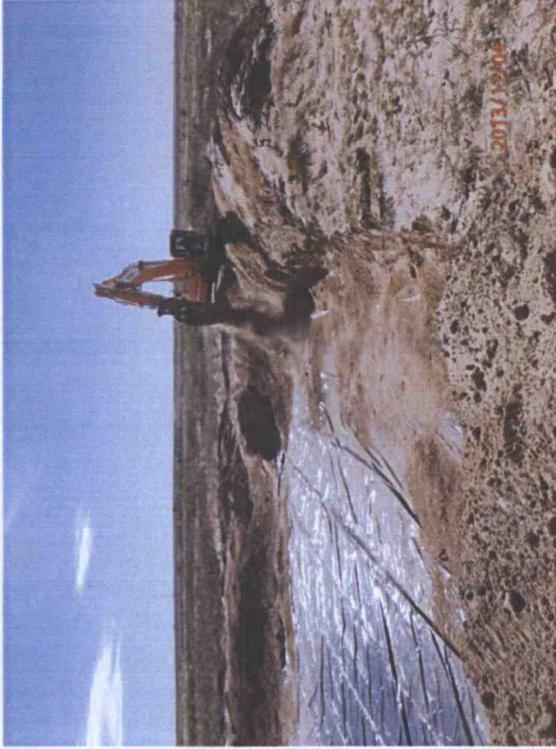
Backfilling over liner completed and benched for 5 ft
bgs liner, facing east
11/1/13



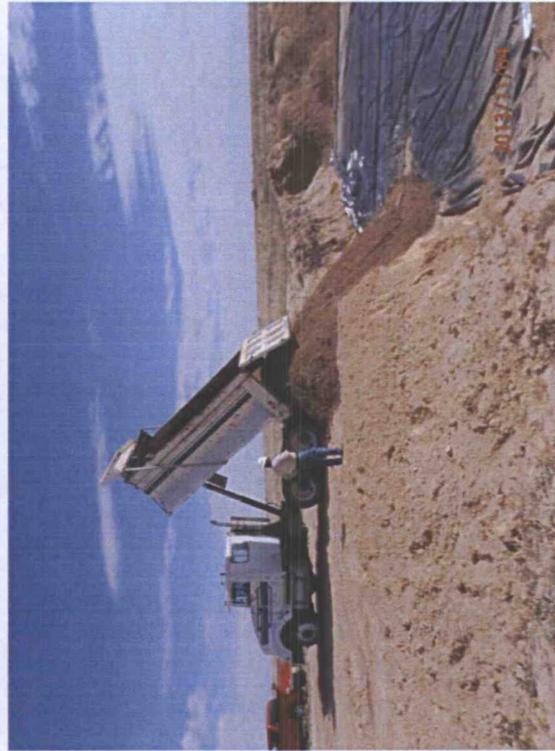
Installing 20-mil poly liner at 5 ft bgs, facing west
11/4/13



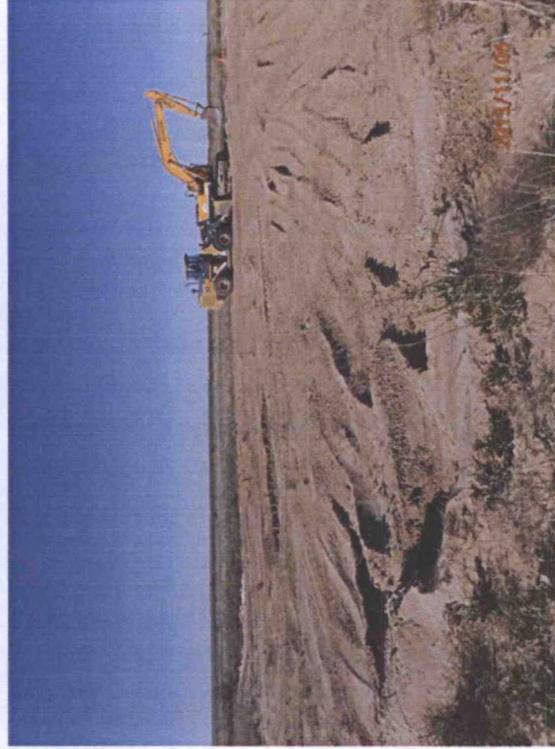
Liner installation at 5 ft bgs completed, facing south
west 11/4/13



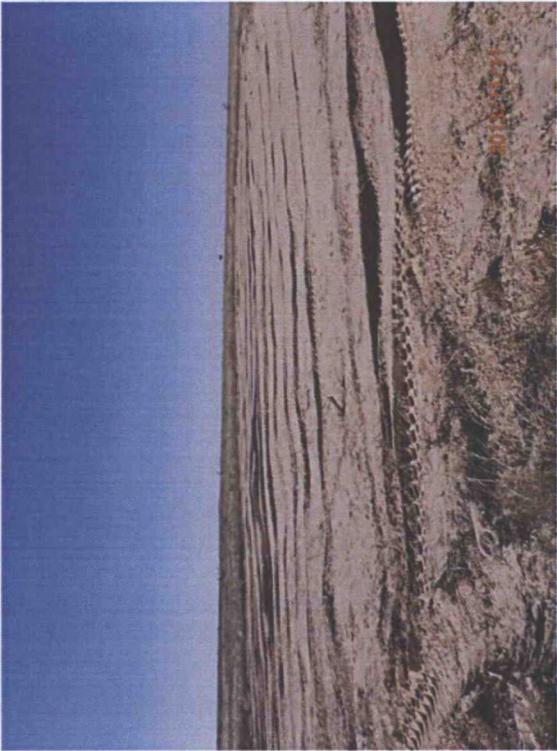
Backfilling over liner, facing south
11/4/13



Importing soil, facing east
11/4/13

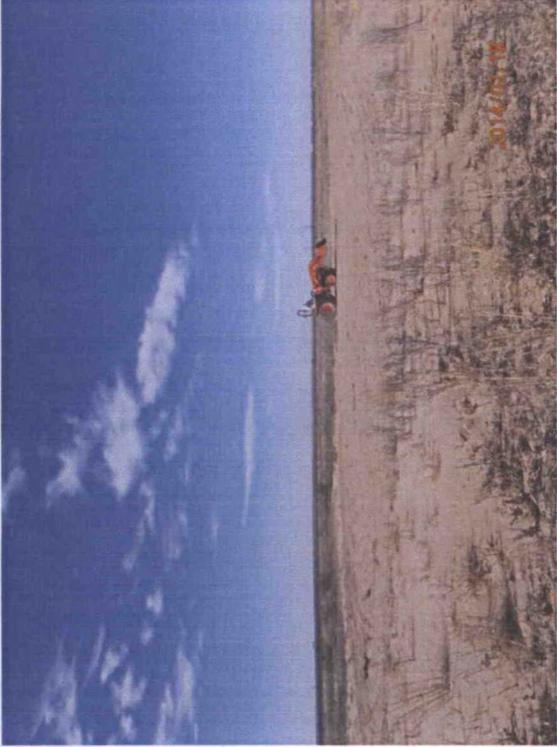


Backfilling completed, facing south
11/6/13



Backfilling completed, facing north

11/11/13



Seeding site, facing west

2/18/14