

1RP-1368

Basin Environmental Service Technologies, LLC

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PRELIMINARY SITE INVESTIGATION REPORT and REMEDIATION/CLOSURE PLAN

**Forest Oil Corporation
Downes "D" Lease Well # 4
Lea County, New Mexico
UNIT M (SW/SW), Section 32, Township 21S, Range 37E
Latitude 32°, 25', 48.9" North, Longitude 103°, 11', 28.1" West**

Prepared For:

Forest Oil Corporation
3504 NW County Road
Hobbs, New Mexico 88240-8826



Prepared By:

Basin Environmental Service Technologies, LLC

22 May 2007


Ken Dutton

Basin Environmental Service Technologies, LLC

incident - nPAC0714534272
application - pPAC0714534363

RP# 1368

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INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin), at the request of Forest Oil Corporation (Forest), visually inspected and proposed remedial activities to be conducted at the Downes "D" Lease Well # 4 crude oil release site in May 2007. The Downes "D" Lease Well # 4 is located on land owned by Mr. Patrick Simms.

This site is located in Unit M (SW $\frac{1}{4}$ /SW $\frac{1}{4}$) Section 32, Township 21 South, Range 37 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The site latitude is 32°, 25', 48.9" North and site longitude is 103°, 11', 28.1" West. The site is characterized by an operational pump jack located in a pasture utilized for cattle grazing and numerous oil and natural gas producing facilities. The visible surface stained area included the release point covering an area approximately 150 feet long by 66 feet wide. Approximately 3 barrels of crude oil and 1 barrel of produced water were released from the Downes "D" Lease Well # 4 flow line and 0 barrels were recovered.

Mr. Gary Wink, New Mexico Oil Conservation Division (NMOCD), Hobbs, New Mexico District 1, was verbally notified of the release on 02 April 2007. A C-141 form, dated 23 April 2007 was completed by Forest and submitted to the NMOCD, Hobbs, New Mexico Office (see Appendix C, NMOCD C-141).

SUMMARY OF FIELD ACTIVITIES

In May 2007, Basin responded to a request from Forest to evaluate and propose remedial activities to be conducted at the Downes "D" Lease Well # 4 crude oil release site. After evaluating the Downes "D" Lease Well # 4 release site, Basin proposed to manually install soil borings to delineate the vertical and horizontal extent of impacted soil, which was subsequently approved by Forest, collecting soil samples at the surface and the subsurface at 1-foot intervals. The release point and visually stained area is approximately 150 feet long by 66 feet wide. Forest personnel replaced the original 2-inch poly flow line which caused the crude oil release with a 3-inch poly flow line.

On 10 May 2007 Basin manually installed eight (8) delineation soil borings collecting soil samples at the surface and the subsurface at 1-foot intervals. Eighteen (18) delineation soil samples were collected from the visually stained area. The eighteen (18) delineation soil samples collected were field screened with a Photoionization Detector (PID), (see Figure 3, Excavation Site Map - Soil Sampling Locations) and were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), total petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO) and chlorides. Laboratory results of the eighteen (18) delineation soil samples indicated that constituent concentrations of BTEX were either not detected above laboratory method detection limits or below NMOCD regulatory standards (see Table 1, Soil Chemistry Results). Laboratory results of the eighteen (18) delineation

soil samples indicated that TPH-GRO/DRO concentrations were not detected above laboratory method detection limits for five (5) soil samples; were below NMOCD regulatory standards for twelve (12) soil samples and exceeded NMOCD regulatory standards for the remaining soil sample (flow path surface). Laboratory results of the eighteen (18) delineation soil samples indicated chloride concentrations were not detected above laboratory method detection limits for eight (8) soil samples; were below NMOCD guidelines for seven (7) soil samples and were slightly elevated for the three (3) remaining soil samples.

NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION

A search of the New Mexico State Engineers database revealed no records available for depth to groundwater for that section, township and range. On 23 April 2007, Forest representative, Mr. Rick Rickman, visited with Mr. Larry Johnson, NMOCD, District 1, and discussed the depth to groundwater issue and Mr. Johnson informed Mr. Rickman, the NMOCD maps indicated groundwater was greater than 200 feet for that section, township and range. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 0 – 9, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	5000 ppm

DISTRIBUTION OF HYDROCARBONS IN THE UNSATURATED ZONE

On 10 May 2007 Basin manually installed eight (8) delineation soil borings in the visually stained area collecting soil samples at the surface and the subsurface at 1-foot intervals. The eight (8) soil borings were installed at depths ranging from the surface to approximately 2 feet below ground surface (bgs). The selected soil samples collected were field screened with a Photoionization Detector (PID) and were analyzed for BTEX, TPH-GRO/DRO and chlorides. Laboratory data sheets and chain-of-custody forms are attached (Appendix B)

The pump jack (PJ) soil boring, as depicted on the Soil Sampling Locations (Figure 3), was installed at the release point (north of pump jack) position. Soil samples at the surface and 1-foot sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were below NMOCD regulatory standards for the surface soil sample and not detected above laboratory method detection limits for the 1-foot soil sample. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface and 1-foot soil samples were below NMOCD regulatory standards at 1928 mg/kg and 442 mg/kg, respectively. Laboratory results indicated chloride concentrations for the surface and 1-foot soil

samples slightly exceeded NMOCD guidelines at 304 mg/kg and 528 mg/kg, respectively.

The flow path (FP) soil boring was installed at the flow path (north and east of pump jack) position. Soil samples at the surface and 1-foot bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were below NMOCD regulatory standards for the surface soil sample and not detected above laboratory method detection limits for the 1-foot bgs soil sample. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface soil sample exceeded NMOCD regulatory standards at 5153 mg/kg and was below NMOCD regulatory standards for the 1-foot bgs soil sample at 161 mg/kg. Laboratory results indicated chloride concentrations for the surface soil sample was below NMOCD guidelines at 112 mg/kg and the 1-foot soil bgs soil sample was not detected above laboratory method detection limits.

Soil Boring 1 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface and 1-foot bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were below NMOCD regulatory standards for the surface soil sample and not detected above laboratory method detection limits for the 1-foot bgs soil sample. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface and 1-foot bgs soil samples were below NMOCD regulatory standards at 1529 mg/kg and 58 mg/kg, respectively. Laboratory results indicated chloride concentrations for the surface soil sample was below NMOCD guidelines at 32 mg/kg and the 1-foot bgs soil sample was not detected above laboratory method detection limits.

Soil Boring 2 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface, 1-foot bgs and 2 feet bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were below NMOCD regulatory standards for the surface soil sample and not detected above laboratory method detection limits for the 1-foot bgs and 2-feet bgs soil samples. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface, 1-foot bgs and 2 feet bgs soil samples were below NMOCD regulatory standards at 4874 mg/kg, 45 mg/kg and 10 mg/kg, respectively. Laboratory results indicated chloride concentrations for the surface soil sample exceeded NMOCD guidelines at 1250 mg/kg and the 1-foot bgs and 2 feet bgs soil samples were below NMOCD guidelines at 32 mg/kg and 32 mg/kg, respectively.

Soil Boring 3 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface and 1-foot bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were not detected above laboratory method detection limits for the surface and 1-foot bgs soil samples. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface soil sample was below NMOCD regulatory standards at 23 mg/kg and not detected above laboratory detection limits for the 1-foot bgs soil

sample. Laboratory results indicated chloride concentrations for the surface and 1-foot soil samples were not detected above laboratory method detection limits.

Soil Boring 4 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface, 1-foot bgs and 2 feet bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were not detected above laboratory method detection limits for the surface, 1-foot bgs and 2 feet soil samples. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface and 1-foot bgs soil samples were below NMOCD regulatory standards at 832 mg/kg and 23 mg/kg, respectively, and not detected above laboratory detection limits for the 2 feet bgs soil sample. Laboratory results indicated chloride concentrations for the surface, 1-foot bgs and 2 feet soil samples were below NMOCD guidelines at 32 mg/kg, 16 mg/kg and 80 mg/kg, respectively.

Soil Boring 5 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface and 1-foot bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX, TPH-GRO/DRO and chloride constituent concentrations were not detected above laboratory method detection limits for the two (2) soil samples.

Soil Boring 6 was installed in the visually stained area (north and east of pump jack) position. Soil samples at the surface and 1-foot bgs sample depths were submitted for analysis. Laboratory results indicated that BTEX constituent concentrations were not detected above laboratory method detection limits for the surface and 1-foot bgs soil samples. Laboratory results indicated that TPH-GRO/DRO constituent concentrations for the surface soil sample was below NMOCD regulatory standards at 202 mg/kg and not detected above laboratory detection limits for the 1-foot bgs soil sample. Laboratory results indicated chloride concentrations for the surface and 1-foot bgs soil samples were not detected above laboratory method detection limits.

RECOMMENDATIONS FOR REMEDIATION

Based on the results of the delineation activities conducted and laboratory results, Forest proposes to excavate the pump jack, flow path and Soil Boring 2 areas to approximately 1-foot bgs. The excavated impacted soils and stockpiled soil will be transported to a NMOCD certified land farm. Once the impacted areas are excavated, confirmation soil samples will be collected and analyzed for constituent concentrations of BTEX, TPH-GRO/DRO and chlorides to ensure NMOCD remedial thresholds are met. Backfill material will be obtained from the landowner. Upon receipt of the analytical results for the confirmation soil samples and NMOCD thresholds are met, backfilling activities will be initiated. Concluding the backfilling activities, the complete area (150 feet long by 66 feet wide) will be disked and reseeded with landowner approved grass seed.

LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Remediation/Closure Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Forest Oil Corporation. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and Forest Oil Corporation.

DISTRIBUTION

- Copy 1: Rick Rickman
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New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240
Larry.Johnson@state.nm.us
- Copy 3: Mr. Patrick Simms
- Copy 4: Basin Environmental Service Technologies LLC
P. O. Box 301
Lovington, New Mexico 88260
kdutton@basinenv.com
- Copy 2

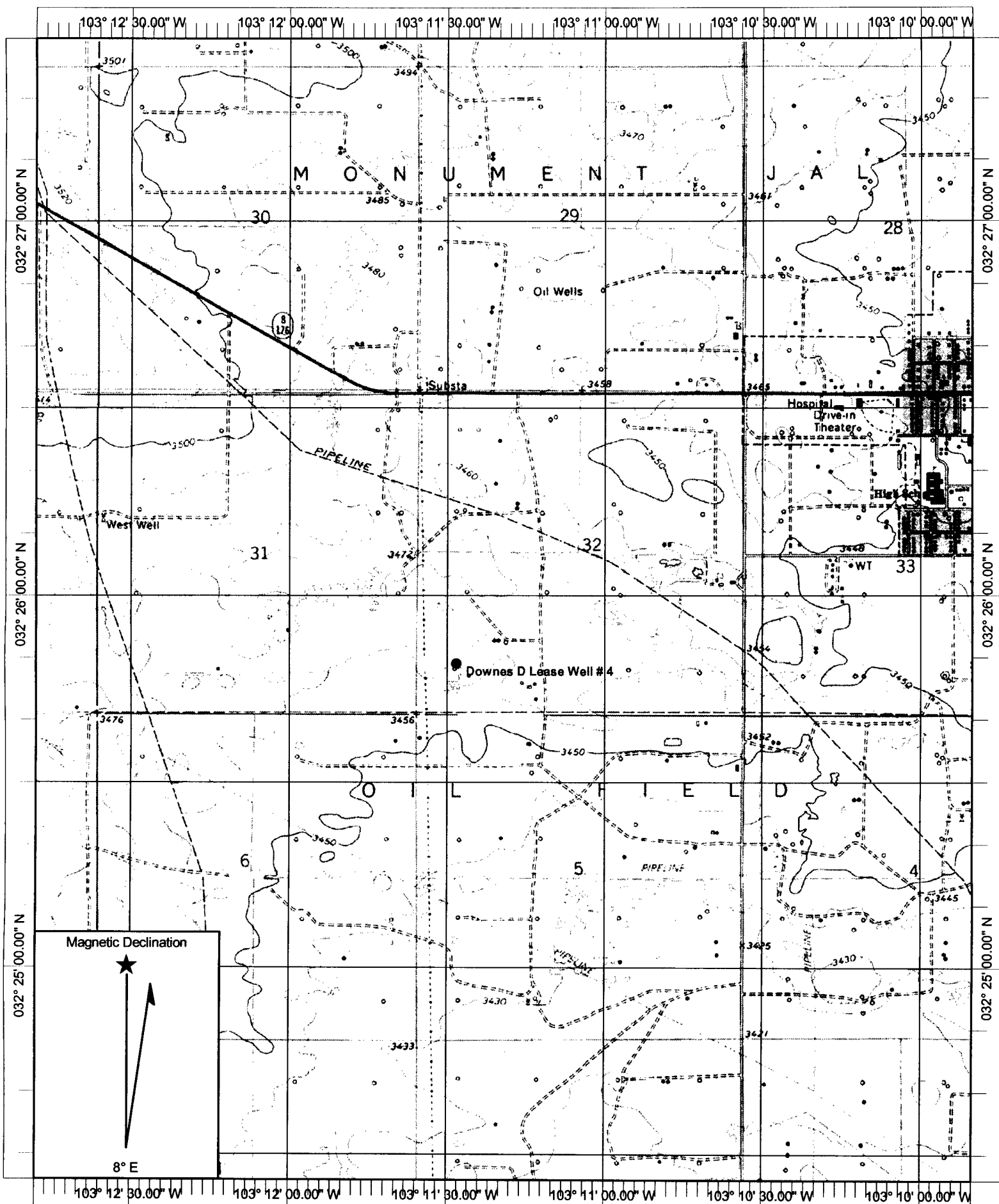
TABLE 1

SOIL CHEMISTRY RESULTS

FOREST OIL CORPORATION
DOWNES "D" LEASE WELL # 4
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030				METHOD: 8015M			TOTAL TPH	CHLORIDES
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)			
S/P	N/A	05/10/07	<0.010	0.017	0.188	0.285	22	3460	3482	672	
PJ SURFACE	N/A	05/10/07	0.028	0.124	<0.010	1.11	168	1760	1928	304	
PJ 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	442	442	528	
FP SURFACE	N/A	05/10/07	<0.002	0.029	0.200	0.461	103	5050	5153	112	
FP 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	161	161	<16	
SB-1 SURFACE	N/A	05/10/07	<0.010	0.018	0.176	0.594	49	1480	1529	32	
SB-1 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	58	58	<16	
SB-2 SURFACE	N/A	05/10/07	0.012	0.162	0.755	1.06	174	4700	4874	1250	
SB-2 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	45	45	32	
SB-2 2' BGS	2' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	10	10	32	
SB-3 SURFACE	N/A	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	23	23	<16	
SB-3 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	<10	<10	<16	
SB-4 SURFACE	N/A	05/10/07	<0.010	<0.010	<0.010	<0.030	<10	832	832	32	
SB-4 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	23	23	16	
SB-4 2' BGS	2' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	<10	<10	80	
SB-5 SURFACE	N/A	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	<10	<10	<16	
SB-5 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.006	<10	<10	<10	<16	
SB-6 SURFACE	N/A	05/10/07	<0.010	<0.010	<0.010	<0.030	<10	202	202	<16	
SB-6 1' BGS	1' BGS	05/10/07	<0.002	<0.002	<0.002	<0.002	<10	<10	<10	<16	
NMOC D CRITERIA			10	TOTAL BTEX 50					5000		

LEGEND: S/P: Stockpile PJ: Pump Jack (west) FP: Flow Path BGS: Below Ground Surface

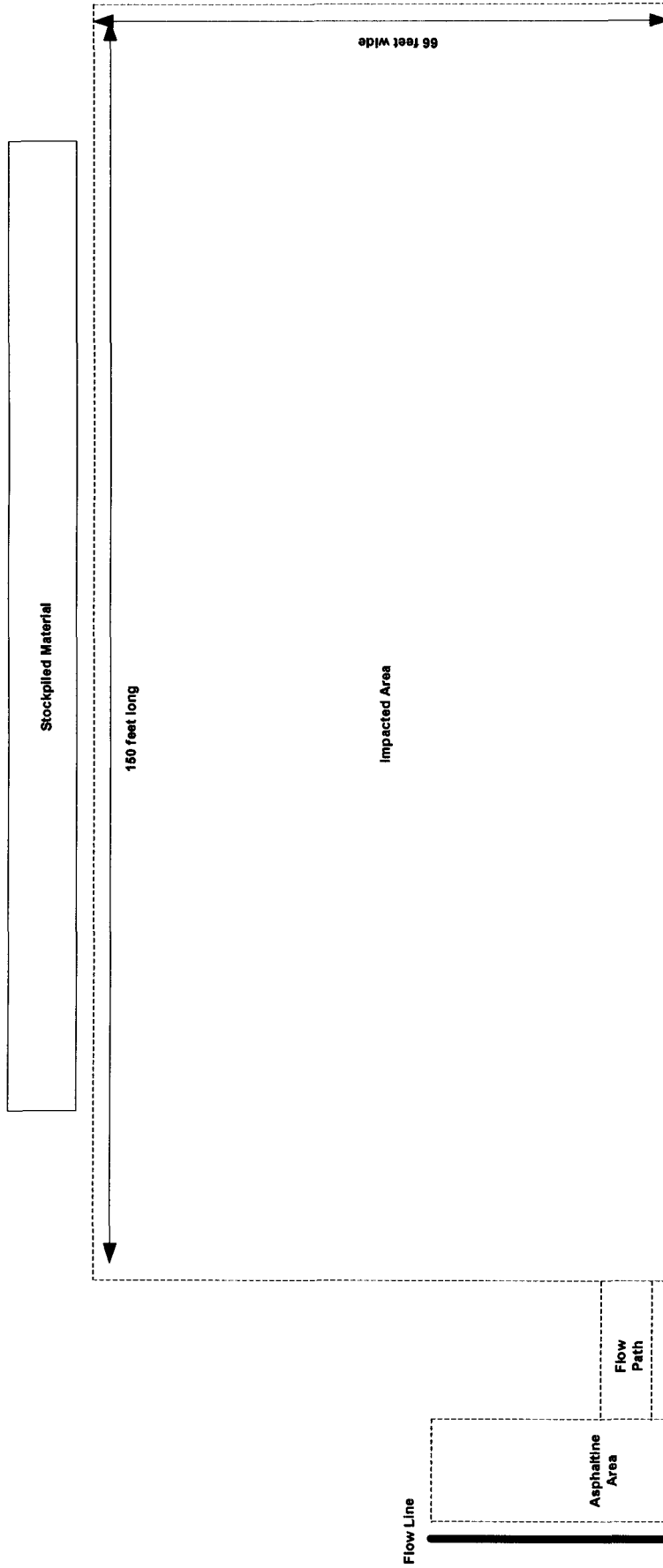


Name: EUNICE
 Date: 5/24/2007
 Scale: 1 inch equals 2000 feet

Location: 032° 25' 57.81" N 103° 11' 19.15" W NAD 27
 Caption: Figure 1, Site Location Map
 Forest Oil Corporation
 Downes D Lease Well # 4



Forest Oil Corporation
Downes "D" Lease Well # 4
SW/4 SW 32, T21S, R37E
Lea County, NM



TITLE

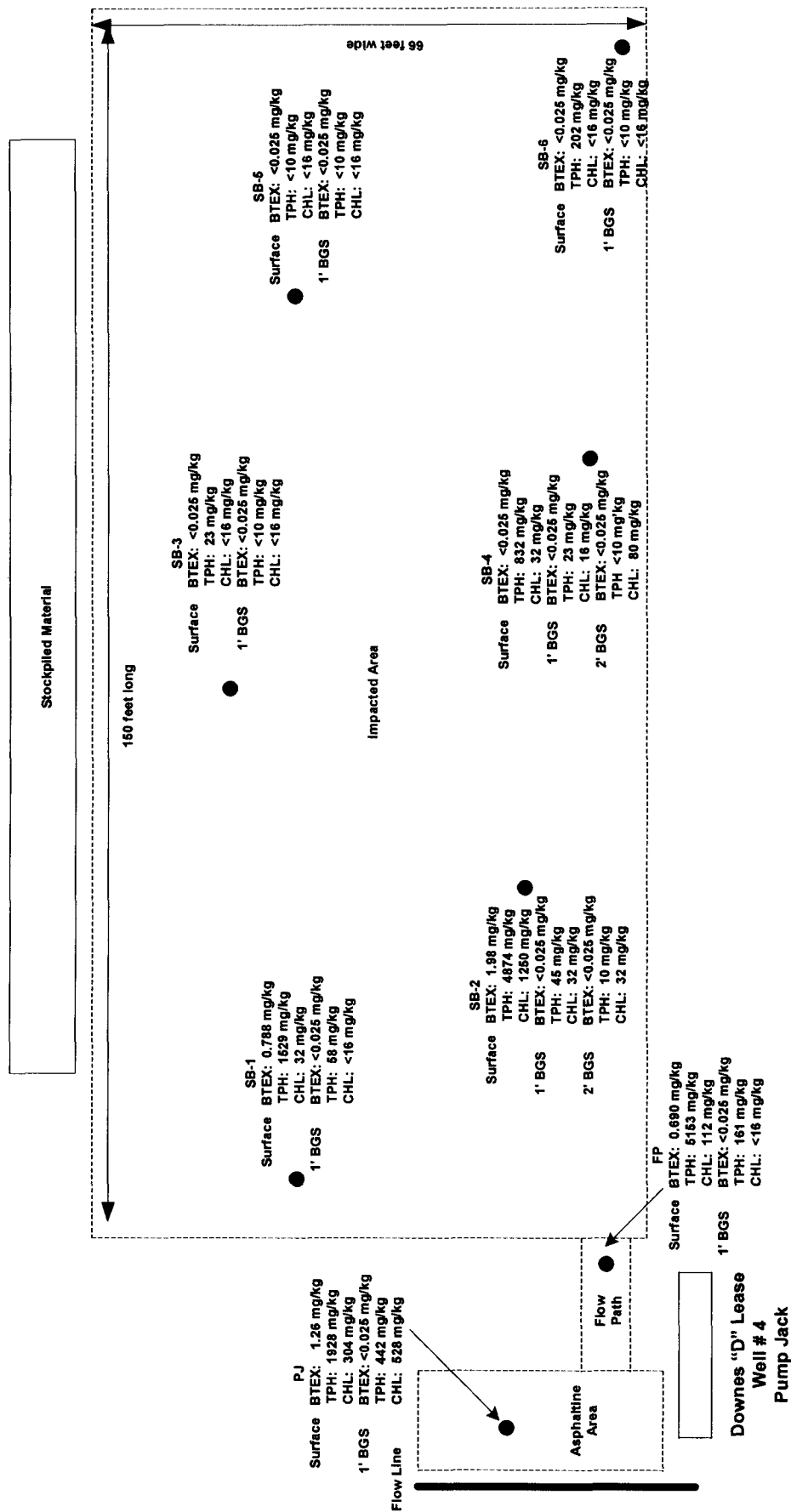
Figure 2
Site Map

DRAWN BY

Basin Environmental Svc.
kad



Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM



TITLE

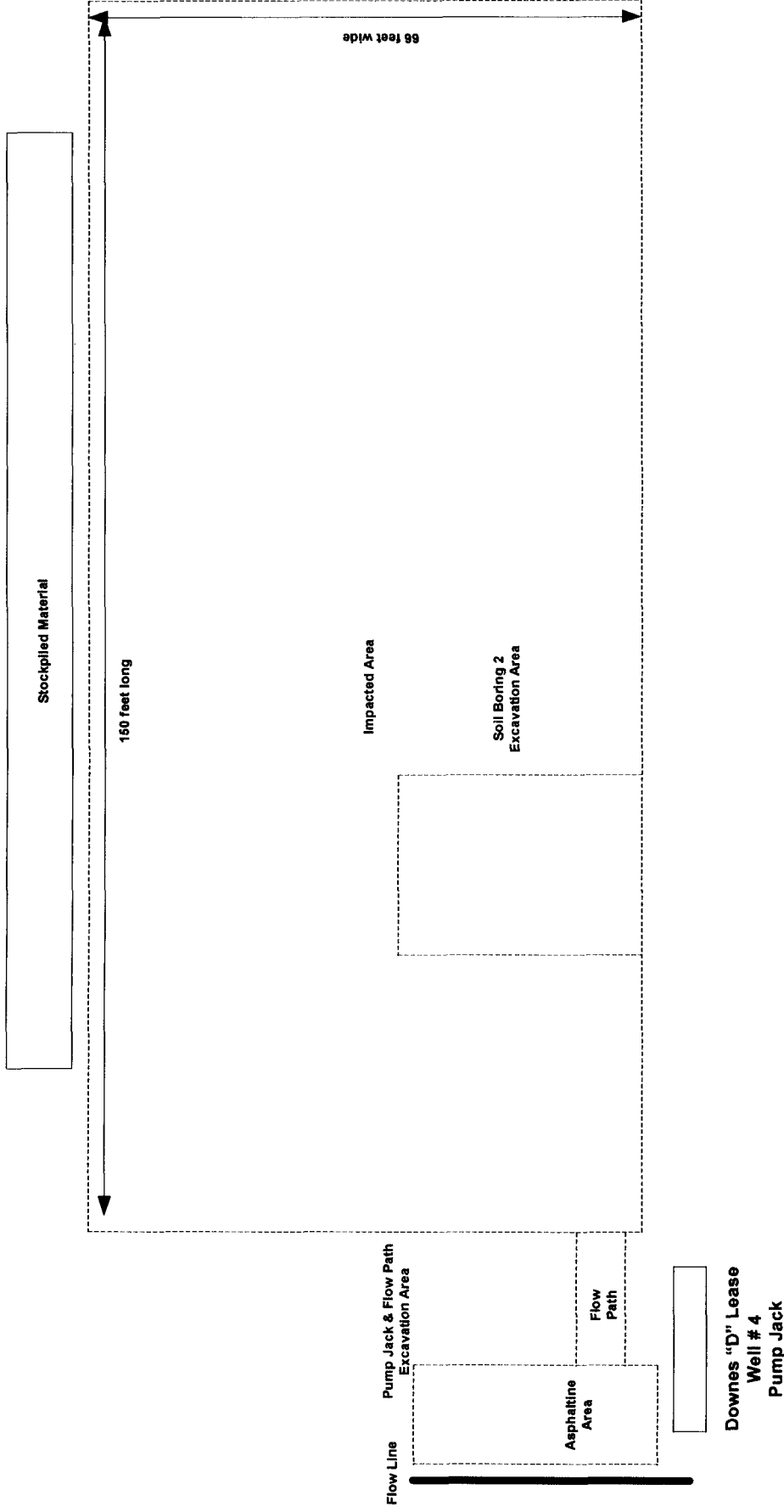
Figure 3
Soil Sampling Locations

DRAWN BY

Basin Environmental Svc.
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Forest Oil Corporation
Downes "D" Lease Well # 4
SW/4SW S32, T21S, R37E
Lea County, NM



TITLE

Figure 4
Excavation Areas

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FOREST OIL CORPORATION

Downes "D" Lease Well # 4

Unit Letter M Sec. 32-21-37

Lea Co. New Mexico

30/04/2007

**Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM**

30/04/2007

Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM

30/04/2007

**Forest Oil Corporation
Downies "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM**

30/04/2007

**Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM**



30/07/2007

**Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM**

30/04/2007

**Forest Oil Corporation
Downes "D" Lease Well # 4
SW/SW S32, T21S, R37E
Lea County, NM**

30/04/2007

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 21S Range: 37E Sections: 32

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

iWATERS Menu

Help

POD / SURFACE DATA REPORT 05/17/2007

(qua

(qua

DB File Nbr	(acre ft per annum) Use	Diversion	Owner	POD Number
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ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BASIN ENVIRONMENTAL SERVICE TECHNOLOGIES
ATTN: KEN DUTTON
P.O. BOX 301
LOVINGTON, NM 88260

Receiving Date: 05/14/07

Reporting Date: 05/16/07

Project Owner: NOT GIVEN

Project Name: FOREST OIL CORPORATION

Project Location: LEA COUNTY, NM

FAX TO: (505) 396-1429

Sampling Date: 05/10/07

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: LB

Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)	(mg/Kg)
ANALYSIS DATE		05/15/07	05/15/07	05/15/07
H12588-1	S/P	22.0	3460	672
H12588-2	PJ SURFACE	168	1760	304
H12588-3	PJ 1' BGS	<10.0	442	528
H12588-4	FP SURFACE	103	5050	112
H12588-5	FP 1' BGS	<10.0	161	<16
H12588-6	SB-1 SURFACE	49	1480	32
H12588-7	SB-1 1' BGS	<10.0	58.1	<16
H12588-8	SB-2 SURFACE	174	4700	1250
H12588-9	SB-2 1' BGS	<10.0	44.9	32
H12588-10	SB-2 2' BGS	<10.0	10.3	32
H12588-11	SB-3 SURFACE	<10.0	23.4	<16
H12588-12	SB-3 1' BGS	<10.0	<10.0	<16
H12588-13	SB-4 SURFACE	<10.0	832	32
H12588-14	SB-4 1' BGS	<10.0	23.1	16
H12588-15	SB-4 2' BGS	<10.0	<10.0	80
H12588-16	SB-5 SURFACE	<10.0	<10.0	<16
H12588-17	SB-5 1' BGS	<10.0	<10.0	<16
H12588-18	SB-6 SURFACE	<10.0	202	<16
H12588-19	SB-6 1' BGS	<10.0	<10.0	<16
Quality Control		770	801	490
True Value QC		800	800	500
% Recovery		96.2	100	98.0
Relative Percent Difference		1.1	2.4	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI/B

*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

H12588A BAS

Date

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 analysis. 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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BASIN ENVIRONMENTAL SERVICE TECHNOLOGIES
ATTN: KEN DUTTON
P.O. BOX 301
LOVINGTON, NM 88260
FAX TO: (505) 396-1429

Receiving Date: 05/14/07
Reporting Date: 05/16/07
Project Owner: NOT GIVEN
Project Name: FOREST OIL CORPORATION
Project Location: LEA COUNTY, NM

Sampling Date: 05/10/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: LB
Analyzed By: LB

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		05/14/07	05/14/07	05/14/07	05/14/07
H12588-1	S/P	<0.010 *	0.017	0.188	0.285
H12588-2	PJ SURFACE	0.028	0.124	<0.010 *	1.11
H12588-3	PJ 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-4	FP SURFACE	<0.002	0.029	0.200	0.461
H12588-5	FP 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-6	SB-1 SURFACE	<0.010 *	0.018	0.176	0.594
H12588-7	SB-1 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-8	SB-2 SURFACE	0.012	0.162	0.755	1.06
H12588-9	SB-2 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-10	SB-2 2' BGS	<0.002	<0.002	<0.002	<0.006
Quality Control		0.088	0.097	0.099	0.299
True Value QC		0.100	0.100	0.100	0.300
% Recovery		88.3	97.1	99	99.8
Relative Percent Difference		7.2	8.7	7.2	6.8

*Increased reporting limits due to sample dilution.

METHOD: EPA SW-846 8021B

Chemist

5/16/07

Date

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 analysis. 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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LOVINGTON, NM 88260
FAX TO: (505) 396-1429

Receiving Date: 05/14/07
Reporting Date: 05/16/07
Project Owner: NOT GIVEN
Project Name: FOREST OIL CORPORATION
Project Location: LEA COUNTY, NM

Sampling Date: 05/10/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: LB
Analyzed By: LB

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		05/14/07	05/14/07	05/14/07	05/14/07
H12588-11	SB-3 SURFACE	<0.002	<0.002	<0.002	<0.006
H12588-12	SB-3 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-13	SB-4 SURFACE	<0.010 *	<0.010 *	<0.010 *	<0.030 *
H12588-14	SB-4 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-15	SB-4 2' BGS	<0.002	<0.002	<0.002	<0.006
H12588-16	SB-5 SURFACE	<0.002	<0.002	<0.002	<0.006
H12588-17	SB-5 1' BGS	<0.002	<0.002	<0.002	<0.006
H12588-18	SB-6 SURFACE	<0.010 *	<0.010 *	<0.010 *	<0.030 *
H12588-19	SB-6 1' BGS	<0.002	<0.002	<0.002	<0.006
Quality Control		0.088	0.097	0.099	0.299
True Value QC		0.100	0.100	0.100	0.300
% Recovery		88.3	97.1	99	99.8
Relative Percent Difference		7.2	8.7	7.2	6.8

*Increased reporting limits due to sample dilution.

METHOD: EPA SW-846 8021B


Chemist


Date

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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

101 East Marland
Hobbs, New Mexico 88240

Phone: 505-393-2326
Fax: 505-393-2476

Project Manager: Ken Dutton

PAGE 01 OF 02

Project Name: FOREST OIL CORPORATION

Company Name: Basin Environmental Service Technologies, LLC

Project #: DOWNES "D" LEASE WELL # 4

Company Address: P. O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: DIRECT BILL FOREST OIL CORPORATION

Telephone No: (505) 441-2124

Fax No: (505) 396-1429

Report Format:

☒ Standard

☐ TRRP

☐ NPDES

Sampler Signature: *Ken Dutton*

e-mail: kdutton@basinenv.com

(lab use only)

ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Screened	Total # of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW - Drinking Water SL - Sludge	GW - Groundwater 5 - Soil/Sol	NP - Non-Portable	Specify Other	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	NORM	Chlorides EPA 300.0			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
86-1	S/P			10-May-07	1430		1	X								SOIL					X									X							
-2	PJ SURFACE			10-May-07	1440		1	X								SOIL					X									X							
-3	PJ 1' BGS			10-May-07	1450		1	X								SOIL					X									X							
-4	FP SURFACE			10-May-07	1500		1	X								SOIL					X									X							
-5	FP 1' BGS			10-May-07	1510		1	X								SOIL					X									X							
-6	SB-1 SURFACE			10-May-07	1520		1	X								SOIL					X									X							
-7	SB-1 1' BGS			10-May-07	1530		1	X								SOIL					X									X							
-8	SB-2 SURFACE			10-May-07	1540		1	X								SOIL					X									X							
-9	SB-2 1' BGS			10-May-07	1550		1	X								SOIL					X									X							
-10	SB-2 2' BGS			10-May-07	1600		1	X								SOIL					X									X							

Special Instructions:

EMAIL RESULTS: kdutton@basinenv.com & rdickman@forestoil.com

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s)

Custody seals on container(s)

Custody seals on cooler(s)

Sample Hand Delivered

by Sampler/Client Rep. ?

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: Ice

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Date

Time

Date

Time

Date

Time

Received by:

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Time

Date

Time

Date

Time

Date

Time

Date

Time

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

101 East Marland
Hobbs, New Mexico 88240

Phone: 505-393-2326
Fax: 505-393-2476

Project Manager: Ken Dutton

PAGE 02 OF 02

Project Name: FOREST OIL CORPORATION

Company Name Basin Environmental Service Technologies, LLC

Project #: DOWNES "D" LEASE WELL # 4

Company Address: P. O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: DIRECT BILL FOREST OIL CORPORATION

Telephone No: (505) 441-2124

Fax No: (505) 396-1429

Report Format:

Sampler Signature:

e-mail: kdutton@basinenv.com

[illegible]

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company <i>FateST oil Co.</i>	Contact <i>Roy R. Munoz</i>
Address <i>Box 3504 Hobbs, NM 88240</i>	Telephone No. <i>505-631-5850</i>
Facility Name <i>Downes "D" Lease #4</i>	Facility Type <i>oil & water leak</i>
Surface Owner <i>Pattick Simons</i>	Mineral Owner _____ Lease No. <i>30-025-24568</i>

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<i>71</i>	<i>32</i>	<i>21</i>	<i>37</i>	<i>660'</i>	<i>South</i>	<i>810</i>	<i>West</i>	<i>Lea</i>

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release <i>oil & water</i>	Volume of Release <i>3 gal. / water</i>	Volume Recovered <i>0</i>
Source of Release <i>oil & water</i>	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	IF YES, To Whom? <i>Roy R. Munoz / GARY W. WINK</i>	<i>10:00 A.M. 4-2-07</i>
By Whom? <i>Will Dean</i>	Date and Hour <i>4-10-07 - 9:00 A.M.</i>	
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.* *2" polyee Line Leak - Replace with 3" polyee Line back Hole rate Top of soil.*

Describe Area Affected and Cleanup Action Taken.* *40' X 80' Area - spray-wind blowing 20 MPH. From The West.*

** SOME PREVIOUS CONTAMINATION WILL BE REMOVED*

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: <i>Roy R. Munoz</i>	Approved by District Supervisor: <i>ENVAC ENCL</i>	
Printed Name: <i>Roy R. Munoz</i>	Approval Date: <i>5-25-07</i>	Expiration Date: <i>7-25-07</i>
Title: <i>Fate MAN</i>	Conditions of Approval: <i>SOBOUT FINAL C-141</i>	
E-mail Address: <i>RMUNOZ@fateSToil.com</i>	Attached <input type="checkbox"/>	
Date: <i>4-23-07</i> Phone: <i>505-631-5850</i>		

* Attach Additional Sheets If Necessary