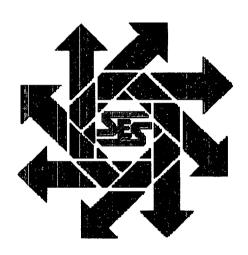
Navajo Refining Company Leaker Line Remediation/Cleanup Report Lea County, New Mexico

Sec 16 T 175 R 32E

July 1, 2002

21/2 MILES S MALTAMAR



Prepared for:

Navajo Refining Company P.O. Box 159 Artesia, New Mexico 88211

By:

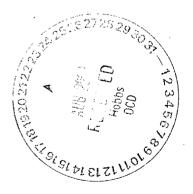
Safety & Environmental Solutions, Inc. 703 E. Clinton Suite 103 Hobbs, New Mexico 88240 (505) 397-0510

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I. Background

Safety & Environmental Solutions, Inc. (SESI) was contacted by Navajo Refining Company to perform assessment and cleanup services on an area impacted by the spillage of approximately 120 barrels of crude oil from a pipeline on the Leaker lease. The subject area is located in Section 16, Township 17S, Range 32E in Lea County, New Mexico. The site is situated on a relatively level area (Figure 1). The subject site is located approximately ½ mile west of County Road 33 (Figure 2).

II. Contaminant and Size of Leak

The suspected contaminant is produced crude oil emulsion, which leaked from the pipeline associated with production in the area. The approximate size of the impacted area is approximately 2,500 sq. ft. Navajo Refining Company received notification from the Oil Conservation Division that the crude oil in this pipeline does not have to be subjected to the Toxic Leaching Characteristics Procedure (TCLP) for toxicity. No evidence of other contaminants was observed.

III. Surface and Ground Water

The nearest groundwater of record with the New Mexico State Engineer's Office is in Section 11 and 12 of 17S 36E. The depths to water in Section 11 range from 105.86 to 32.35 feet. The depth to water in Section 12 is 120.13 feet.

IV. Soils

The soils in the area are predominantly sandy loam.

V. Work Performed

The cleanup level reached by the application of the "Guidelines for Remediation of Leaks, Spill and Releases" New Mexico Oil Conservation Division — August 13, 1993 to this site is 5000 ppm TPH. The site was excavated both horizontally and vertically for the removal of all highly contaminated and/or saturated soils as defined in the Guidelines. The excavated soils were blended on-site with adjacent clean soils to a level of no greater than 5000 ppm TPH.

The impacted soils were excavated and vertical extent of contamination was found to be approximately 14 feet in depth. The soils were blended with clean soils on site. The blended soils were backfilled into the excavation, and the area was contoured back to normal grade.

SESI retrieved composite samples from the bottom of the excavation and a final composite sample of the surface after back filling operations were completed. The

samples were preserved in appropriate containers and transported under chain of custody to Cardinal Laboratories in Hobbs, New Mexico for analysis for TPH (method TRPHC-EPA 600/7-79-020,418.1) and BTEX (method BTEX-EPA SW-846-8020).

The results of the analysis are as follows:

DATE	SAMPLE ID	ТРН	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES
6/21/02	Bottom Hole	906	0.008	0.061	0.554	0.805
6/25/02	Final Composite	3180	<0.005	1.60	4.03	7.00

VI. Figures & Appendices

Figure 1 - Vicinity Map

Figure 2 - Site Plan

Appendix A - Analytical Results

Appendix B - Site Photos

Figure 1 Vicinity Map

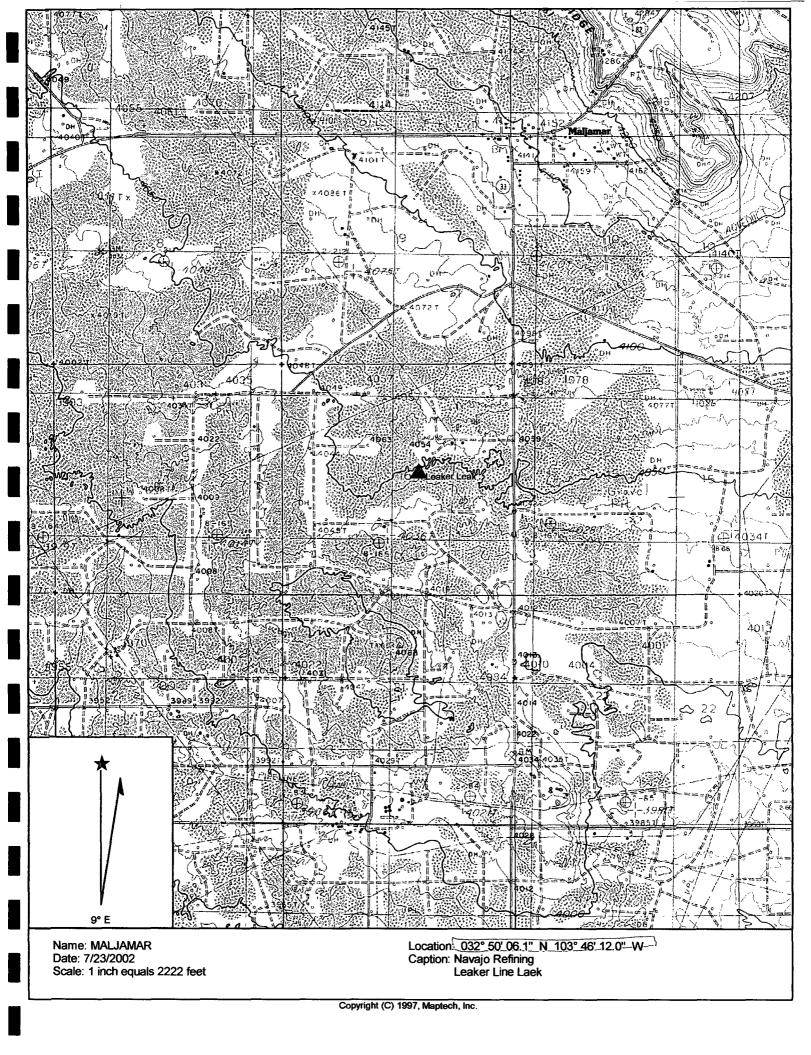
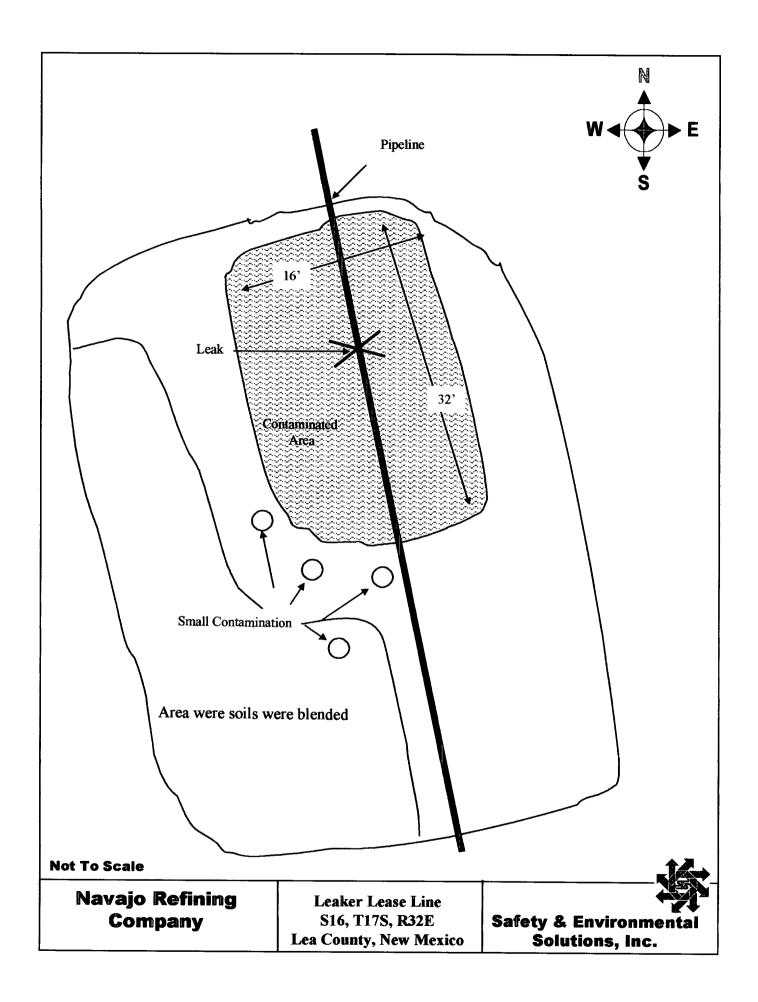


Figure 2
Site Plan



Appendix A Analytical Results





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

ANALYTICAL RESULTS FOR

SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN 703 E. CLINTON, #103 **HOBBS, NM 88240**

FAX TO: (505) 393-4388

Receiving Date: 06/21/02

Reporting Date: 06/24/02

Project Number: NAV-02-0020 (NAVAJO)

Project Name: LEAKER LEAK

Project Location: LEA CO., NM

Sampling Date: 06/21/02

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

					ETHYL	TOTAL
LAB NO.	SAMPLE ID	TPH	BENZENE	TOLUENE	BENZENE	XYLENES
	•	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)

ANALYSIS DATE:	06/21/02	06/21/02	06/21/02	06/21/02	06/21/02
H6830-1 BOTTOM HOLE	906	0.008	0.061	0.554	0.805
Quality Control	233	0.104	0.109	0.101	0.290
True Value QC	240	0.100	0.100	0.100	0.300
% Recovery	96.9	104	109	101	96.7
Relative Percent Difference	3.7	2.3	5.1	6.8	6.9

METHODS TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW-846-8020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC. 2111 Beechwood, Abilene, TX 79603

(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476 101 East Marland, Hobbs, NM 88240

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		· · ·	State: Zip:	Project Owner: Navajo	Project #: NAV-02-00 2
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			Address:		Phone #: (505) 397-0510
			Attn:	State: NM Zip: 88240	city: HOBBS
			Company: SAME	CLINION, #103	Address: 703 E. C
			<i>BILL TO</i> Po#:	a Allew	Project Manager: 13012
	ANALYSIS REQUEST				Company Name: SEST
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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR

SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN 703 E. CLINTON, #103 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 06/25/02

Reporting Date: 06/27/02

Project Number: NAV-02-002 (NAVAJO)

Project Name: LEAKER LEAK

Project Location: LEA COUNTY, NM

Sampling Date: 06/25/02

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: BC

TOTAL ETHYL LAB NO. **XYLENES** SAMPLE ID BENZENE TOLUENE BENZENE (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg)

ANALYSIS DATE:	06/25/02	06/26/02	06/26/02	06/26/02	06/26/02
H6841-1 FINAL COMPOSITE	3180	<0.005	1.60	4.03	7.00
Quality Control	233	0.102	0.102	0.104	0.299
True Value QC	240	0.100	0.100	0.100	0.300
% Recovery	96.9	102	102	104	99.7
Relative Percent Difference	3.7	7.8	4.1	3.1	2.5

METHODS: TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW-846-8020



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(915) 673-7001 Fax (915) 673-7020 101 East Marland, Hobbs, NM 80240 (505) 393-2326 Fax (505) 393-2476

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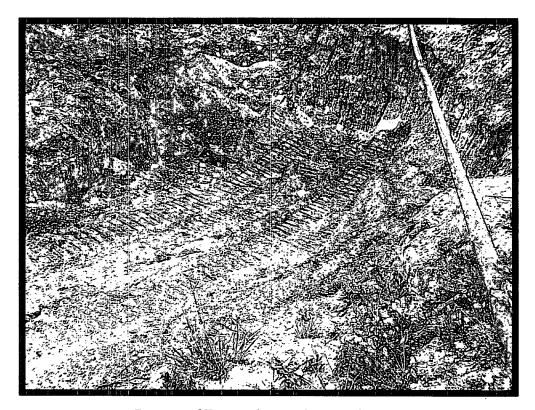
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Appendix B Site Photos



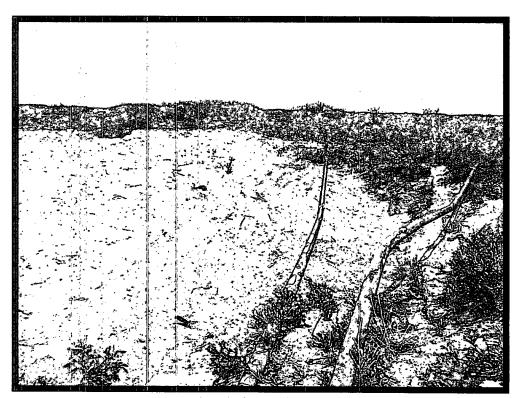
Bottom of Excavation Facing North-West



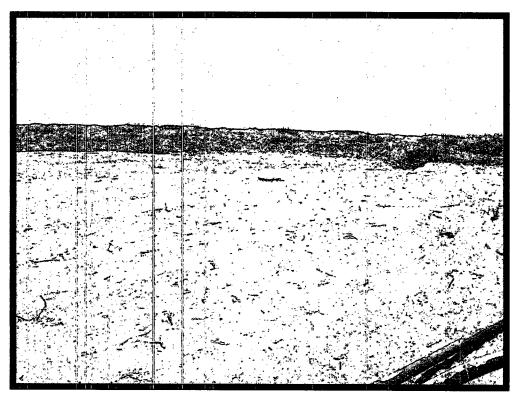
Bottom of Excavation Facing North



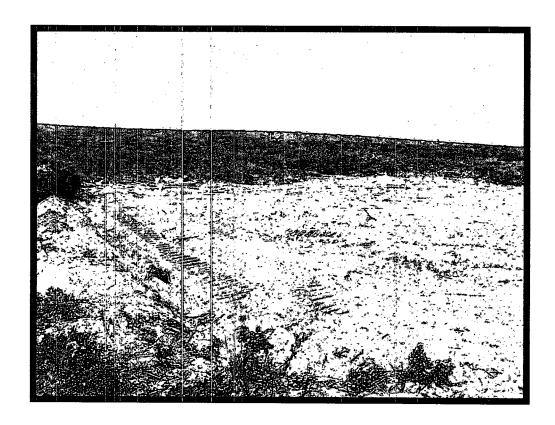
Bottom of Excavation Facing South



Completed Site Facing Pipeline



Completed Site Facing North-West



Completed Site Facing South-West



Completed Site Facing West