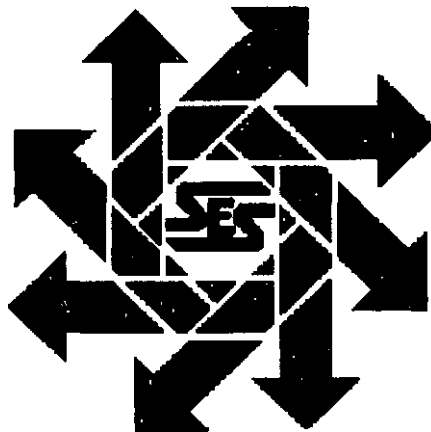


**Merit Energy  
Turner WB #85  
Final C-141 Closure Documentation  
Unit B, Section 29, Township 17S, Range 31E  
Eddy County, New Mexico**

**January 6, 2005**



***Prepared for:***

**Merit Energy  
P.O. Box 69  
Loco Hills, N.M. 88255**

***By:***

***Safety & Environmental Solutions, Inc.  
703 E. Clinton Suite 102  
Hobbs, New Mexico 88240  
(505) 397-0510***

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## I Company Contacts

Gene Brookshire	Merit Energy	505-677-2327	Gene.brookshire@meritenergy.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com
John Good	SESI	505-631-3277	Jcgood4614@aol.com

## II Background

The release occurred at the Merit Energy Turner WB #85 oil well. The site is located in UL-B, Section 29 Township 17S Range 31E, Eddy County, New Mexico.

The release at this location occurred at approximately 10:30 AM on 11/23/04. A 1-inch nipple on a pumping tee broke during normal operating procedures by the company pumper. Repairs were facilitated immediately by the pumper. Approximately 4-bbl of crude oil and associated produced water was released onto the caliche well pad west and southwest of the pumpjack. The release extended approximately 200-ft, affecting an estimated 1000-ft<sup>2</sup> area.

## III Contaminant and Size of Area

The contaminant was crude oil and associated produced water. The caliche well pad area contaminated by the flow line release was approximately 200-ft X 5-ft. (see Site Plan).

The crude oil and produced water associated with this release is considered RCRA Exempt oilfield waste. No evidence of other contaminants was observed.

## IV Surface and Ground Water

There is no groundwater of record in this area of Eddy County according to information obtained from the New Mexico State Engineer online database. There are no water wells or surface waters within a 1000-ft radius of the site.

## V Soils

The soil in the area is predominantly red sand underlain by a caliche base approximately 20-ft below average surface grade. The soil material immediately affected by the release was the caliche well pad.

## VI Vertical and Horizontal Contaminant Extents

The vertical contamination extent into the caliche well pad was limited to <6-inches. SESI responded to the release within 1-hour and the contaminated soil was blended and stockpiled within 2-hours of the initial release.

## VII Remediation Activities

The remediation level achieved 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 Total Petroleum Hydrocarbon (TPH<sup>8015</sup>), 10-ppm Benzene and 50-ppm BTEX.

The initial response to this release occurred within 1-hour of the release on 11/23/04. Clean soil was spread out on the contaminant flow path to absorb liquids. The contaminated soil was then stockpiled until the area dried out from recent heavy rains.

The final phase for this remediation project occurred on 12-8-04. The contaminated stockpile was blended with additional clean soil obtained from the periphery of the well pad. This blended material was then utilized to construct a 2-ft high berm at the down-gradient edges of the caliche well pad to prevent future migration of released oil onto the natural terrain surrounding the location.

A sample of the blended soil was collected and submitted to Cardinal Laboratories, Hobbs, NM for analysis. The composite analysis of the blend yielded the following results:

- TPH<sup>8015</sup> - <60 ppm
- BTEX<sup>8260</sup> - <0.030 ppm
- Benzene<sup>8260</sup> - <0.005 ppm
- Chlorides<sup>4500Cl-B</sup> - 2640 ppm

The chloride concentration is above the NM Water Quality Control Commission ground water standard of 250-ppm. This will have not adverse affect to the area due to the lack of ground water in the area and its placement on the already barren caliche pad.

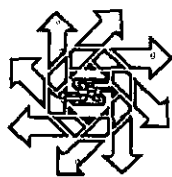
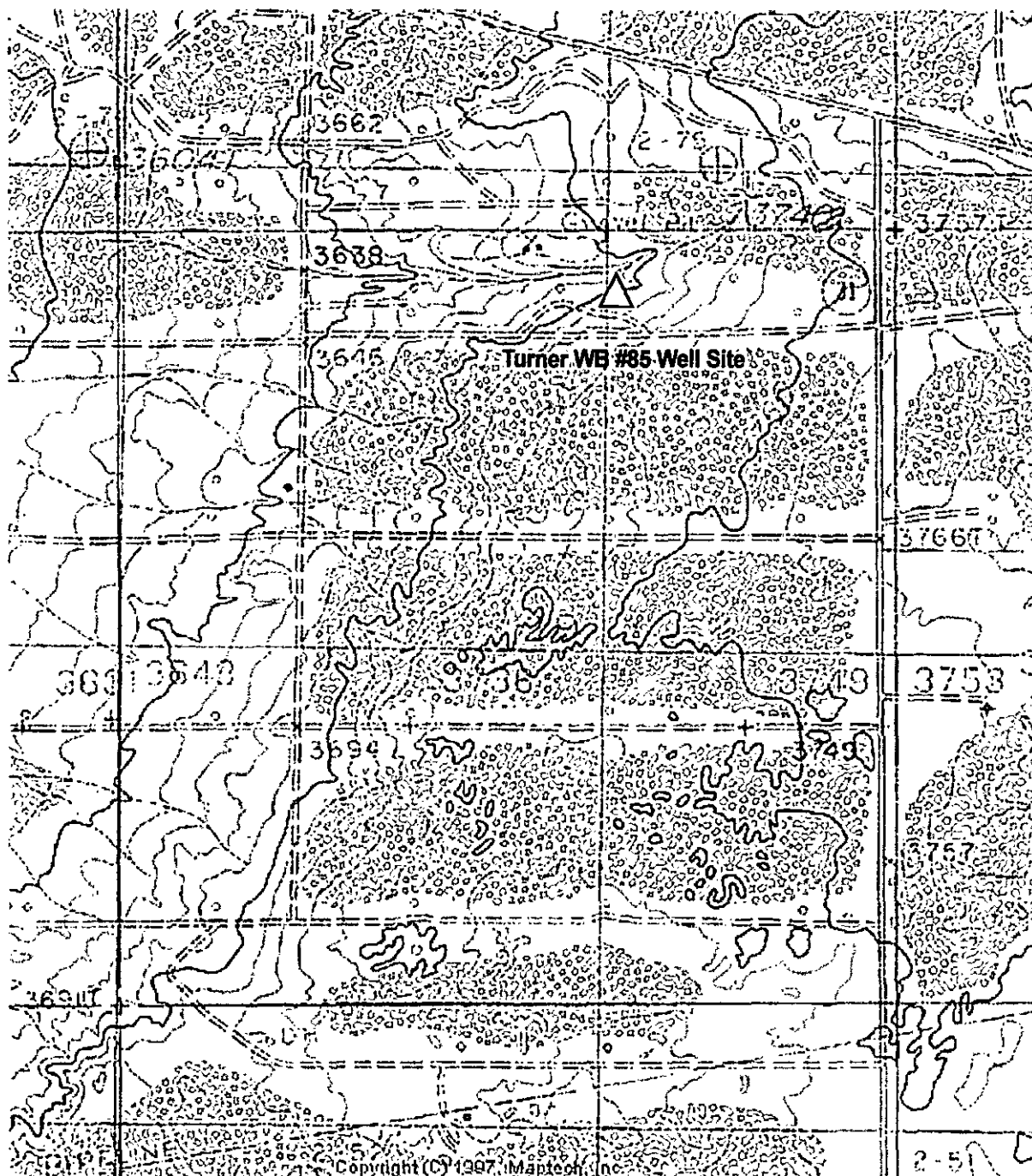
## VIII Closure Justification

This report documents successful remediation of this release site. Soil contaminated above acceptable remedial concentrations was excavated, stockpiled and blended to acceptable remedial concentration levels. Based on the data presented in this report, Safety and Environmental Solutions, Inc., on behalf of Merit Energy Corporation, requests that the NMOCD require "no further action" at the Turner WB #85 well site.

## IX. Figures and Appendices

- Appendix A: Plate 1 - Vicinity Map
- Appendix B: Plate 2 - Site Plan
- Appendix C: Final C-141 Form & Site Metrics
- Appendix D: Analytical Results
- Appendix E: Site Photos

**APPENDIX A: PLATE 1**  
**Vicinity Map**



Safety & Environmental  
Solutions, Inc.  
Hobbs, New Mexico

**Plate 1**  
**Merit Energy Corporation**  
**Turner WB #85 Oil Well Release Site**  
UL-B, Section 29, Township 17S, Range 31E  
Eddy County, New Mexico

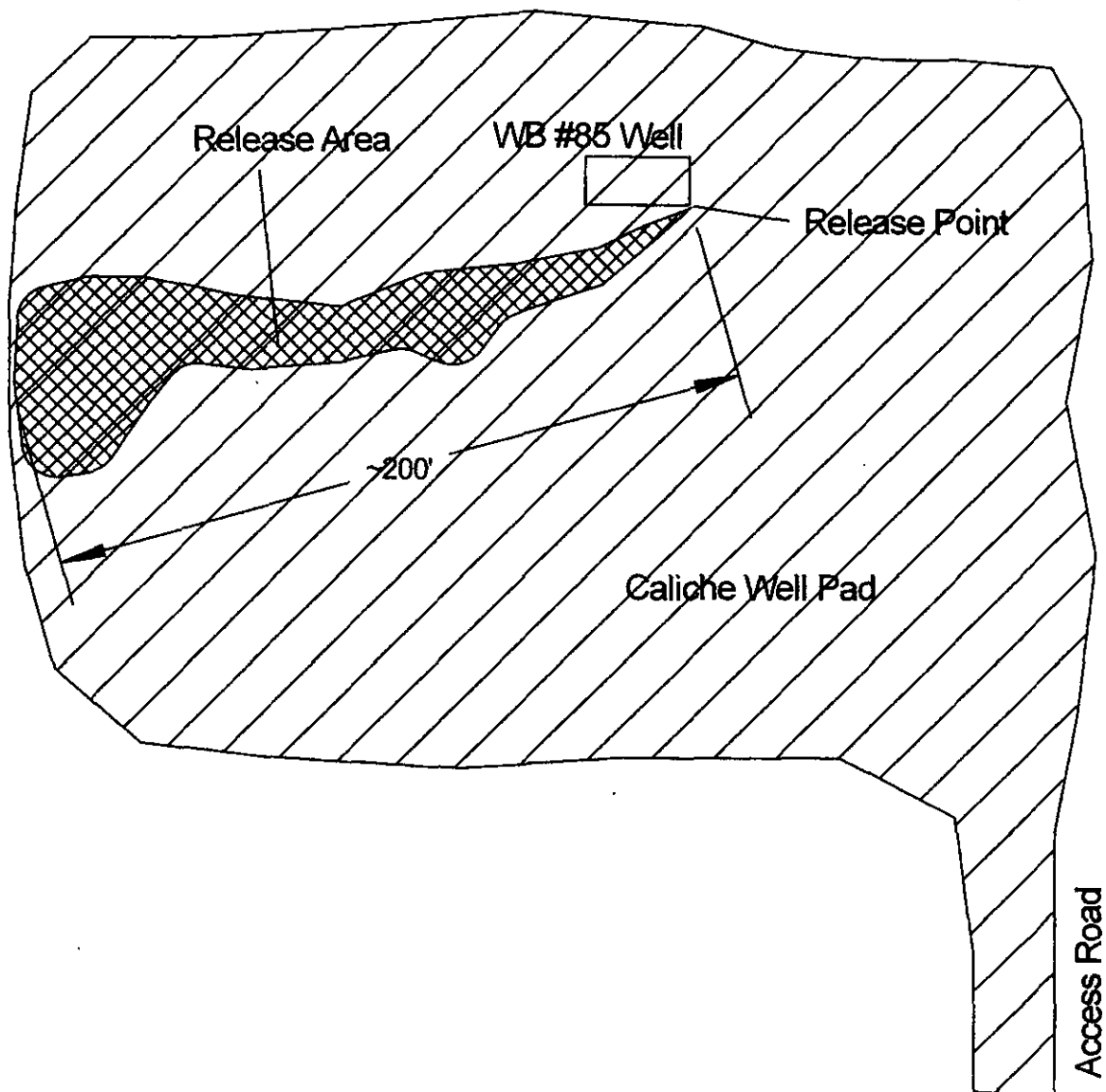
Date 1/06/2005 Dwg by: John Good Rev 1

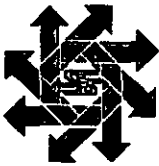

Scale: 1" = 1138'

Mile

0 0.75

**APPENDIX B: PLATE 2**  
**Site Plan**



	Plate 2 Merit Energy Corporation WB #85 Oil Well Release Site		
	UL-B, Section 29, Township 17S, Range 31E Eddy County, New Mexico		
Safety & Environmental Solutions, Inc. Hobbs, New Mexico	Date 1/06/2005	Dwg by: John Good	Rev 1
	0  200 Feet Scale: 1" = ~50'		



**Appendix C**  
**Final C-141 Form;**  
**Site Metrics Form**  
**Turner WB #85 Oil Well**  
**11/23/04 Release**

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**

Form C-141

Revised June 10, 2003

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

Submit 2 Copies to appropriate

District Office in accordance

with Rule 116 on back  
 side of form.

30-015-26386

## Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Merit Energy Corporation	Contact	Gene Brookshire
Address	P.O. Box 69	Telephone No.	505-420-5497
Facility Name	Turner B South Well #85	Facility Type	Oil Well

Surface Owner	BLM	Mineral Owner	NA	Lease No.	LC-029395-B
---------------	-----	---------------	----	-----------	-------------

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from South Line	Feet from West Line	Longitude-W	Latitude-N	County
B	29	17S	31E	3975	3945			Eddy

## NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Crude Oil	4 bbl	0 bbl
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Well head	11/23/04 10:30 AM	11/23/04 10:30 AM
Was Immediate Notice Given?	If YES, To Whom?	
<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Not Required		
By Whom? NA	Date and Hour	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NA	
If a Watercourse was Impacted, Describe Fully*		

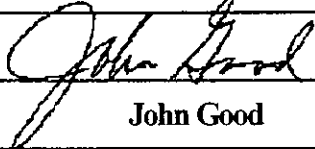
Describe Cause of Problem and Remedial Action Taken. \*

1" nipple on pumping tee broke, repaired by pumper on-site at time of release. Approximately 4-bbl of crude oil released before repair was facilitated. Clean soil was blended in to absorb liquids and material was stockpiled.

Describe Area Affected and Cleanup Action Taken. \*

Approximate 1000-ft<sup>2</sup> area (5' X 200') southwest of the well head affected by ~4-bbl crude oil release. Contaminated soil was blended on site to below action levels; utilized to construct downgradient berms to prevent future off-site migration.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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:		T. Gum <u>OIL CONSERVATION DIVISION</u> by Mike Bratcher	
Printed Name:	John Good	Approved by District Supervisor:	
Title:	SESI - Project Consultant	Approval Date: 2/10/05	Expiration Date: N/A
E-Mail Address:	ballen@sesi-nm.com	Conditions of Approval:	
Date:	1/6/2005	Phone:	505-397-0510
		<input type="checkbox"/> Attached	

**Merit Energy Corporation**

Incident Date: 11/23/04 NMOCD Notified: 11/24/04

SITE: Turner B South Well #85		Assigned Site Reference: MER-04-025	
Company: Merit Energy Corporation			
Street Address:			
Mailing Address: P.O. Box 69			
City, State, Zip: Loco Hills, NM 88255			
Representative: Gene Brookshire			
Representative Telephone: 505-420-5497			
Telephone:			
Fluid Volume Released (bbl): > 4		Volume Recovered (bbl): 0	Net Release: > 4
>25 bbl: Notify NMOCD verbally within 24 hours and submit C-141 within 15 days. 5-25 bbl: Submit Form C-141 within 15 days. (Also applies to unauthorized release of >50 mcf Natural Gas).			
Leak, Spill, or Pit (LSP) Name: Turner B South Well #85			
Source of Contamination: Well head			
Land Owner, i.e. BLM, ST, Fee, Other: BLM			
LSP Dimensions: ~ 5' X 200'			
LSP Area ~ 1000 -ft <sup>2</sup>			
Location of Reference Point (RP):			
Location distance and direction from RP:			
Latitude: North			
Longitude: West			
Elevation above mean sea level (amsl):		feet	meters
Distance from South Section Line (feet): 3975			
Distance from West Section Line (feet): 3945			
Location - Unit Letter and 1/4 1/4:		UL-	B NW 1/4 of NE 1/4
Location - Section		29	
Location - Township		17S	
Location - Range		31E	
Surface water body within 1000' radius of site:		0	
Surface water body within 1000' radius of site:		0	
Domestic water wells within 1000' radius of site:		0	
Domestic water wells within 1000' radius of site:		0	
Agricultural water wells within 1000' radius of site:		0	
Agricultural water wells within 1000' radius of site:		0	
Public water supply wells within 1000' radius of site:		0	
Public water supply wells within 1000' radius of site:		0	
Depth (feet) from land surface to Ground Water (DG): > 250			
Depth (feet) of lowest contamination (DC): < 5			
Depth (feet) to Ground Water (DG - DC = DtGW): > 245			
<b>1. Ground Water</b>		<b>2. Wellhead Protection Area</b>	
If Depth to GW <50-feet: 20 points		If <1000' from water source, or, <200' from private domestic water source: 20 points	
If Depth to GW 50 to 100-feet: 10 points		If >1000' from water source, or, >200' from private domestic water source: 0 points	
If Depth to GW >100-feet: 0 points			
Ground Water Score: 0		Wellhead Protection Score: 0	
Site Ranking (1 + 2 + 3): 0		Surface Water Score: 0	
<b>Total Site Ranking Score and Acceptable Concentrations</b>			
Parameter	20 or >	10	0
Benzene <sup>1</sup>	10-ppm	10-ppm	10-ppm
BTEX <sup>1</sup>	50-ppm	50-ppm	50-ppm
TPH	100-ppm	1000-ppm	5000-ppm

<sup>1</sup> 100-ppm field VOC headspace measurement may be substituted for lab analysis

## **Appendix D**

### **Analytical Results**



# ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: JOHN GOOD  
703 E. CLINTON  
HOBBS, NM 88240  
FAX TO:

Receiving Date: 12/09/04  
Reporting Date: 12/10/04  
Project Number: MER-04-025  
Project Name: TURNER B #85  
Project Location: UL-B SEC29 T17S R31E

Sampling Date: 12/08/04  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		12/10/04	12/10/04	12/10/04
H9387-1	SMTB 85-BLD	<10.0	48.2	2640
Quality Control		761	773	970
True Value QC		800	800	1000
% Recovery		95.1	96.6	97.0
Relative Percent Difference		7.2	5.0	5.2

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

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

  
Chemist

12/10/04  
Date

H9387A.XLS

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.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

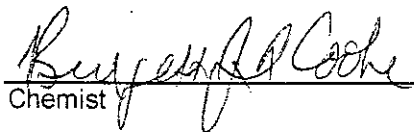
ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: JOHN GOOD  
703 E. CLINTON  
HOBBS, NM 88240  
FAX TO:

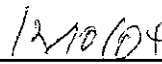
Receiving Date: 12/09/04  
Reporting Date: 12/10/04  
Project Number: MER-04-025  
Project Name: TURNER B #85  
Project Location: UL-B SEC29 T17S R31E

Sampling Date: 12/08/04  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		12/10/04	12/10/04	12/10/04	12/10/04
H9387-1	SMTB 85-BLD	<0.005	<0.005	<0.005	<0.015
Quality Control		0.099	0.090	0.101	0.319
True Value QC		0.100	0.100	0.100	0.300
% Recovery		99.4	90.3	101	106.0
Relative Percent Difference		5.4	1.1	1.4	1.5

METHOD: EPA SW-846 8260

  
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 persons 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.

H9387-B.XLS

**ARDINAL LABORATORIES, INC.**

Page      of     

† Cardinal cannot accept verbal changes. Please fax written changes to (325) 673-7020.

**Terms and Conditions:** Interest will be charged on all accounts more than 30 days past due at the rate of 2 1/2% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

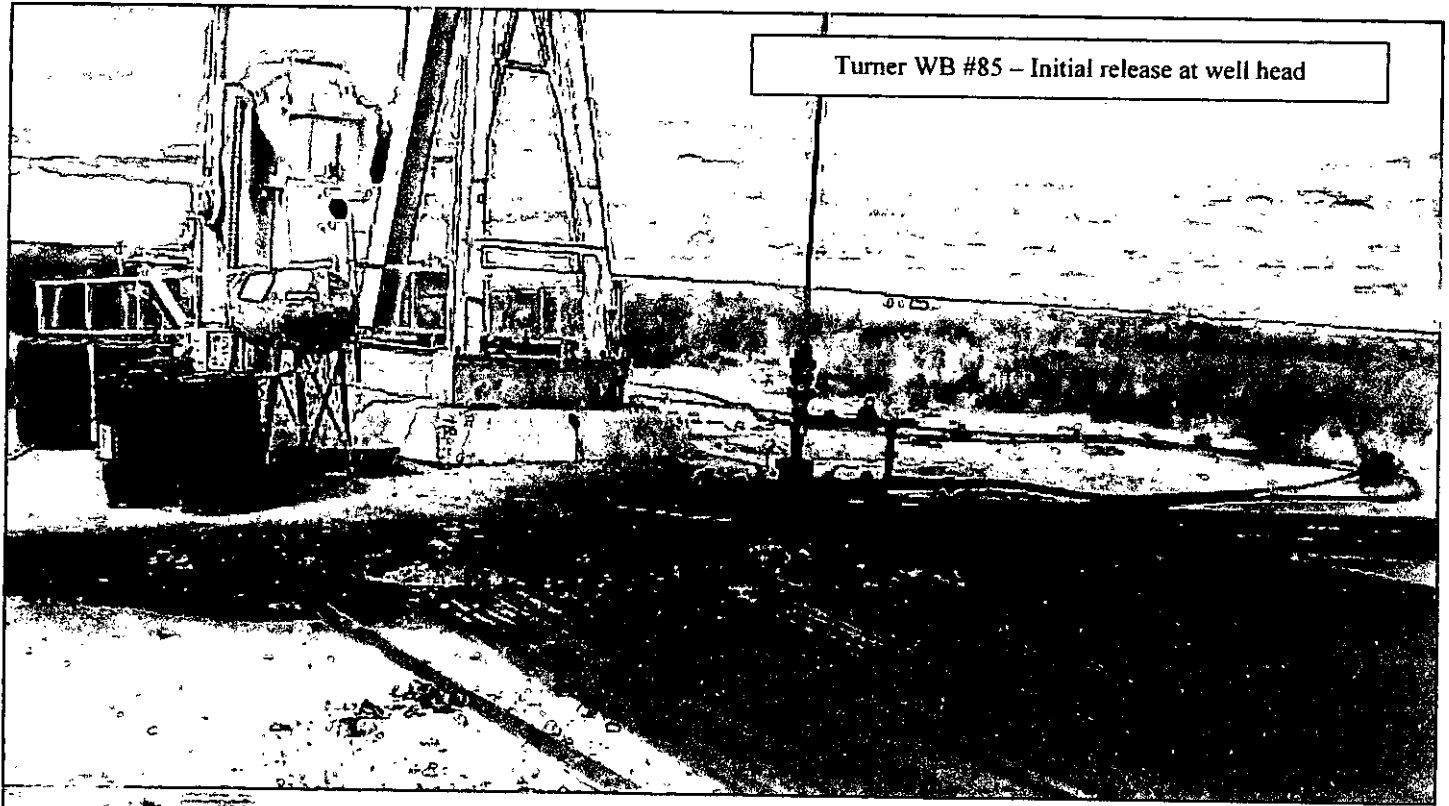


## **Appendix E**

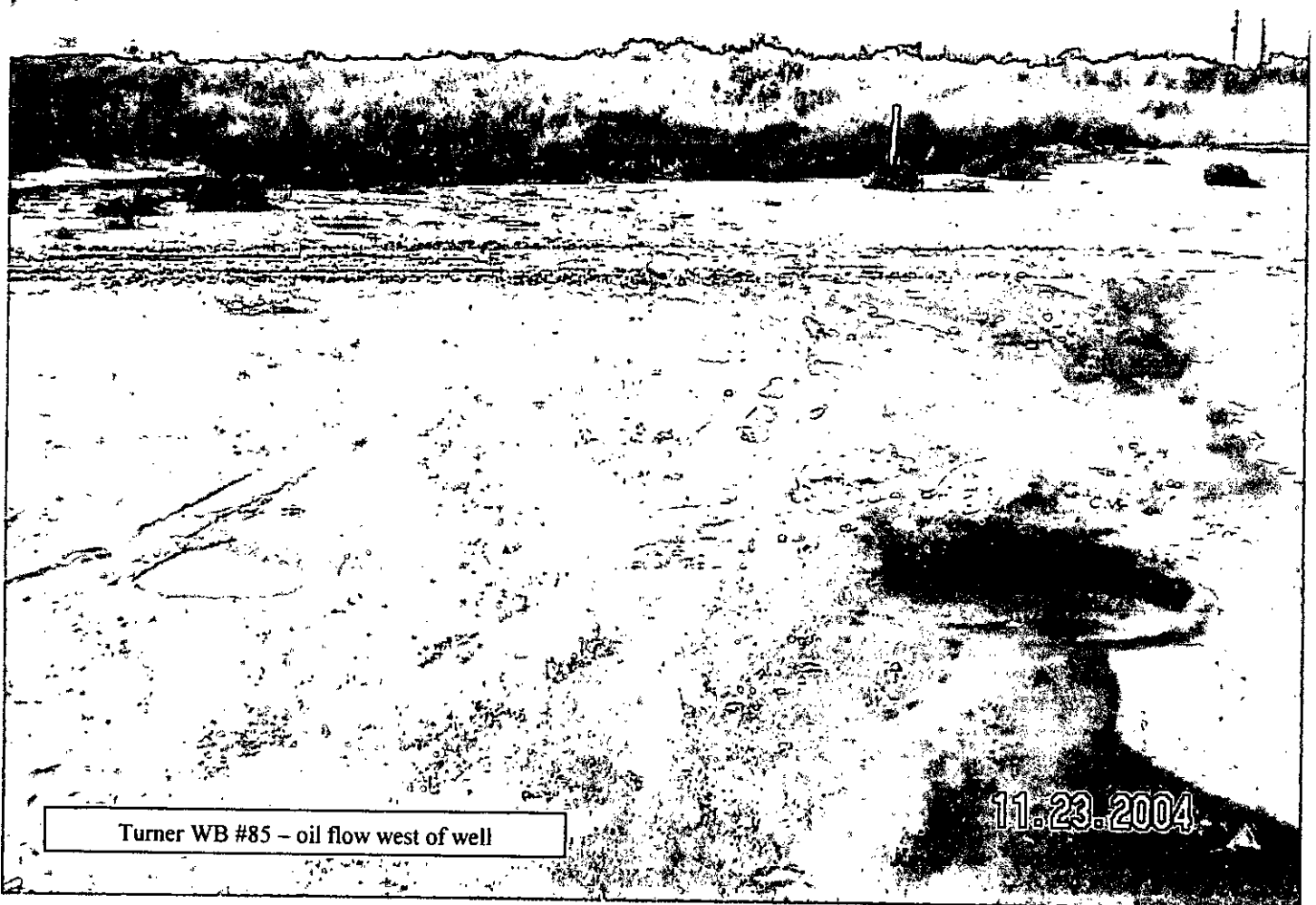
### **Site Photos**



Turner WB #85 – Initial release at well head



Turner WB #85 – oil flow west of well



11.23.2004

Turner WB #85 – completed, east looking west

12.08.2004

Turner WB #85 – berm built north of well

12.08.2004

Turner WB #85 – west extent of oil flow

11.23.2004

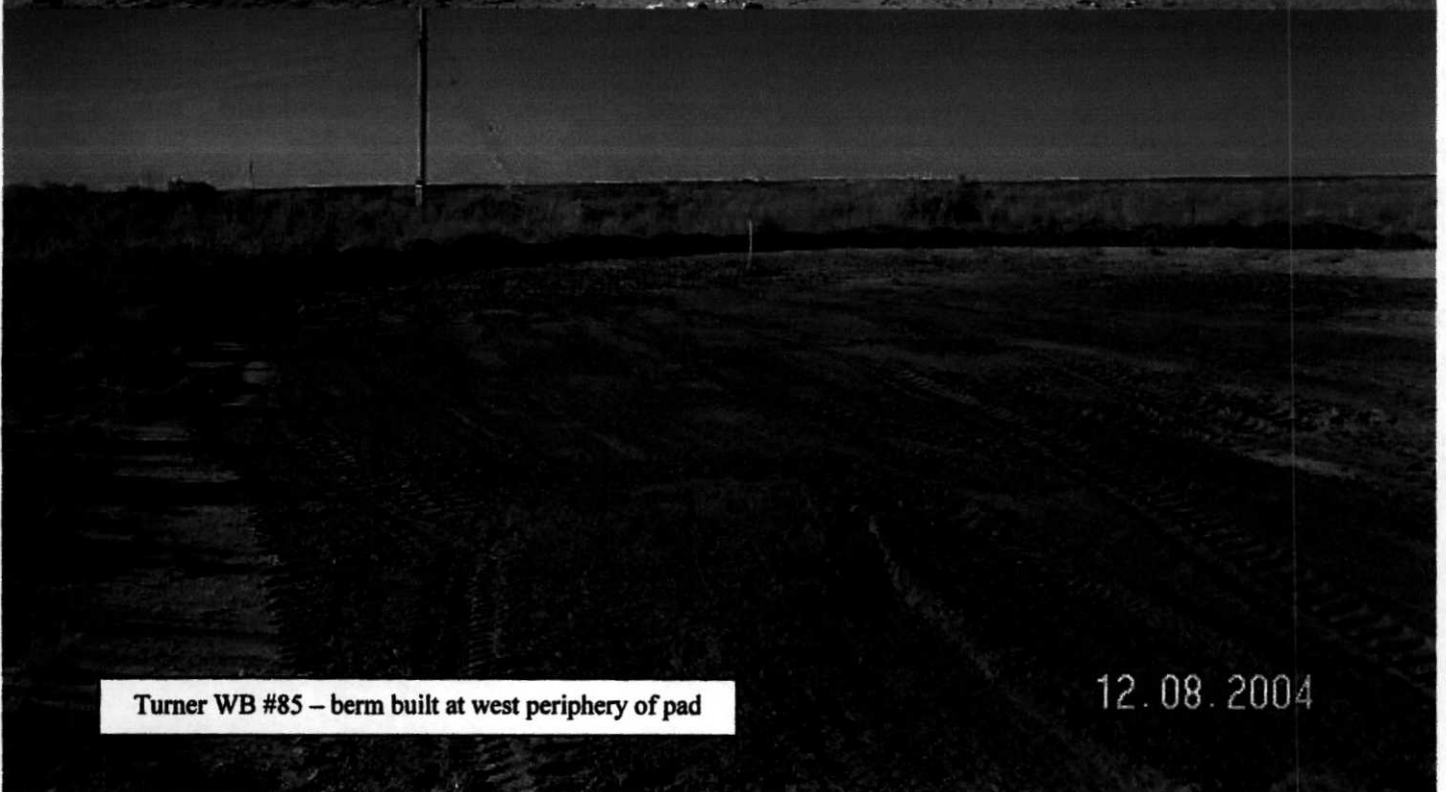
Turner WB #85 – stockpiled soil after initial response

11.23.2004

Turner WB #85 – additional blending of stockpile



12.08.2004



Turner WB #85 – berm built at west periphery of pad

12.08.2004