

SITE REMEDIATION

**DOYLE HARTMAN OIL OPERATORS
RELEASE SITE: ~~ARNOTT RAMSAY~~ (NCT-B) JOB#01061
UNIT LETTER "G"
SECTION 32, TOWNSHIP 25 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO**

*Doyle
Hartman 74752
facility - p PAC0608130422
incident - n PAC0608130593
application - p PAC0608130656*

M.C.C.
Environmental Services
P.O. BOX 1030
JAL, NEW MEXICO
505-395-2776
FAX 505-395-3476

SITE REMEDIATION

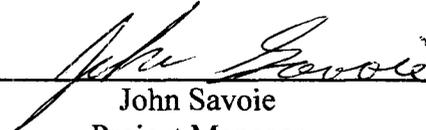
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PREPARED FOR:

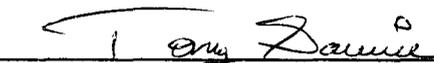
**DOYLE HARTMAN OIL OPERATORS
HWY. 128
JAL, NEW MEXICO 88252**

Mr. Doyle Hartman

PREPARED BY:
MERRYMAN CONSTRUCTION
ENVIRONMENTAL SERVICES



John Savoie
Project Manager



Tony Savoie
Senior Project Manager

M.C.C. Job # 01061
May 25, 2001

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FIGURE 2—SITE SKETCH AFTER REMEDIATION

PHOTO—AFTER REMEDIATION PHOTO 5&6

FORM—C-141

FORM----C-138

**APPENDICES ANALYTICAL--LABORATORY REPORT
CHAIN-OF-CUSTODY DOCUMENTATION**

ASSESSMENT:

Assessment activities began on 5/22/01. The area was sketched, and photographed. An oil stained area approximately ~~75 ft. by 30 ft.~~ was observed within the lease road at the Doyle Hartman Arnott Ramsay (NCT-B) ~~Tank Battery~~; site details are recorded in figure 1.

An average depth to water report was downloaded from the State Engineers Office web site. There were no registered wells found in Section 32, Township 25S, Range 37E. Depth to water and distance to surface water was determined by researching the surrounding sections. A total of 5 water wells were found in section 29 just to the north of section 32 with an average depth to water of ~~187 ft.~~ Monitor wells at the Equilon Tank Farm average 105 ft. to water

A NMOCD form C-141 was filled out on ~~5/22/01~~ reporting an estimated loss of ~~45 bls of crude oil with all but 5 bls recovered.~~ The release has been classified as a major release under the guidelines of NMOCD rule 116.

CLOSURE STANDARDS

The New Mexico Oil Conservation Division "NMOCD" Guidelines for Remediation of Leaks, Spills, and Releases contains the standard criteria for remediation activities. A ranking analysis for the site was performed to determine appropriate soil remediation levels. The ranking analysis is as follows:

| | | |
|----------------------------|-----------------------------------------------------------------------------------------|-----------------|
| Depth to Ground Water | Greater Than 100 Feet | 0 Points |
| Well Head Protection | Greater Than 1000 Feet to Water Source Greater Than 200 Feet to Private Water Source | 0 Points |
| Surface Water Body | Greater Than 1000 Feet | 0 Points |
| Total Ranking Score | | 0 Points |

Based on the total ranking score, the closure objectives for this site for concentrations of benzene, BTEX, and TPH in soil are summarized below.

| CONSTITUENT | CLOSURE CONCENTRATIONS (mg/kg) |
|-------------|-----------------------------------|
| BENZENE | 10 |
| BTEX | 50 |
| TPH | 5000 |

REMEDIATION:

Excavation of stained soil began on 05/22/01. The stained soil was placed on the lease road north of the site. The soil from surface to 2.5 ft. was sandy loam; all of the visibly stained soil was excavated by 5/22/01; samples were collected from the bottom and sloped exit of the excavation, and one sample was collected from the stockpile. The sample locations and site description are identified in Figure 1, and table 1 below. Approximately 200 cubic yards of soil had been excavated at this time. Based on the volume of soil excavated and the TPH analytical, approximately 6.64 bls of hydrocarbon liquids were absorbed into the soil.

Stained soil around the release was identified as historic spills from previous operations or pipeline spills. The stained soil within the tank battery yard will be addressed if and when the facility is abandoned.

All soil samples were screened in the field using a photo-ionization detector (PID). Prior to use, the PID was calibrated to an isobutylene gas standard. Soil samples were prepared and shipped to the laboratory for analysis.

Soil TPH concentrations will be analyzed using one or all of the following methods:

EPA 418.1

EPA SW 846-8015M GRO/DRO

A vapor headspace reading taken when the samples are collected can substitute for BTEX lab samples.

At least one sample will be collected to verify Benzene and BTEX in soil concentrations using the following method:

EPA SW 846-8021B, 5030

TABLE 1

Site Assessment Soil Samples
DOYLE HARTMAN OIL OPERATORS
LEA COUNTY, NEW MEXICO

SITE: ARNNOT RAMSEY "B" JOB # 01061

| SAMPLE LOCATION | SAMPLE DEPTH (FEET) | DATE SAMPLED | PID READING | TPH GRO Mg/Kg | TPH DRO Mg/Kg | Benzene Mg/Kg | BTEX Mg/Kg |
|-------------------|---------------------|--------------|-------------|---------------|---------------|---------------|------------|
| Area #1 composite | 2.5 ft. average | 5/22/01 | 3.5 | <10 | <10 | N/T | N/T |
| Area #2 composite | 2.5 ft. average | 5/22/01 | 4.5 | <10 | <10 | <0.025 | <0.025 |
| Area #3 composite | 2.5 ft. average | 5/22/01 | 4.0 | <10 | <10 | N/T | N/T |
| Area #4 composite | 2.5 ft. average | 5/22/01 | 3.5 | <10 | <10 | N/T | N/T |
| Stockpile | | 5/22/01 | 78.0 | 1114 | 4044 | N/T | N/T |

The excavation samples have met the NMOCD guidelines for closure.

CLOSURE:

The stockpiled soil (approximately 200 cubic yds.) was hauled to B&K Landfarm. Form C-138 is attached

Having achieved closure levels in the excavation, fresh caliche was hauled in and placed into the excavated area; all backfill and leveling operations were completed by 5/24/01.

SUMMARY:

All of the samples taken during the remediation and closure activities demonstrate that the NMOCD guidelines have been achieved in remediation of this site.

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 25S Range: 37E Sections: 32

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

Well Data Report Avg Depth to Water Report Water Column Report
Clear Form WATERS Menu Help

WELL DATA REPORT 05/23/2001

DB File Nbr (acre ft per annum) Use Diversion Owner Well Number (quarters are (quarters are
No Records found, try again

monitor wells at The Equilon Tank Farm
Approximately 1/2 mile S.E. of The Site
Average 105 Ft. to the top of the water.

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 25S Range: 37E Sections: 29

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

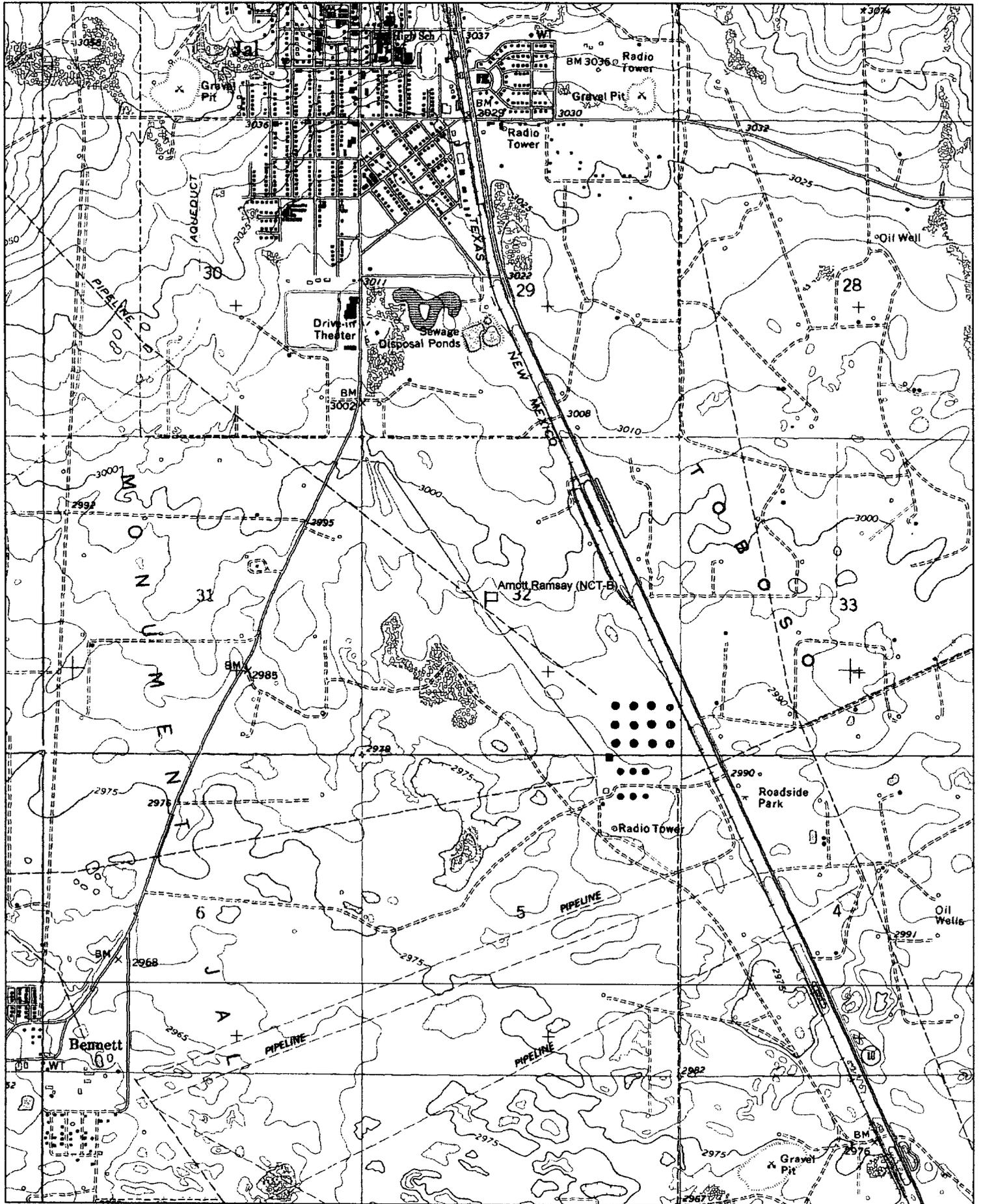
Well Data Report Avg Depth to Water Report Water Column Report

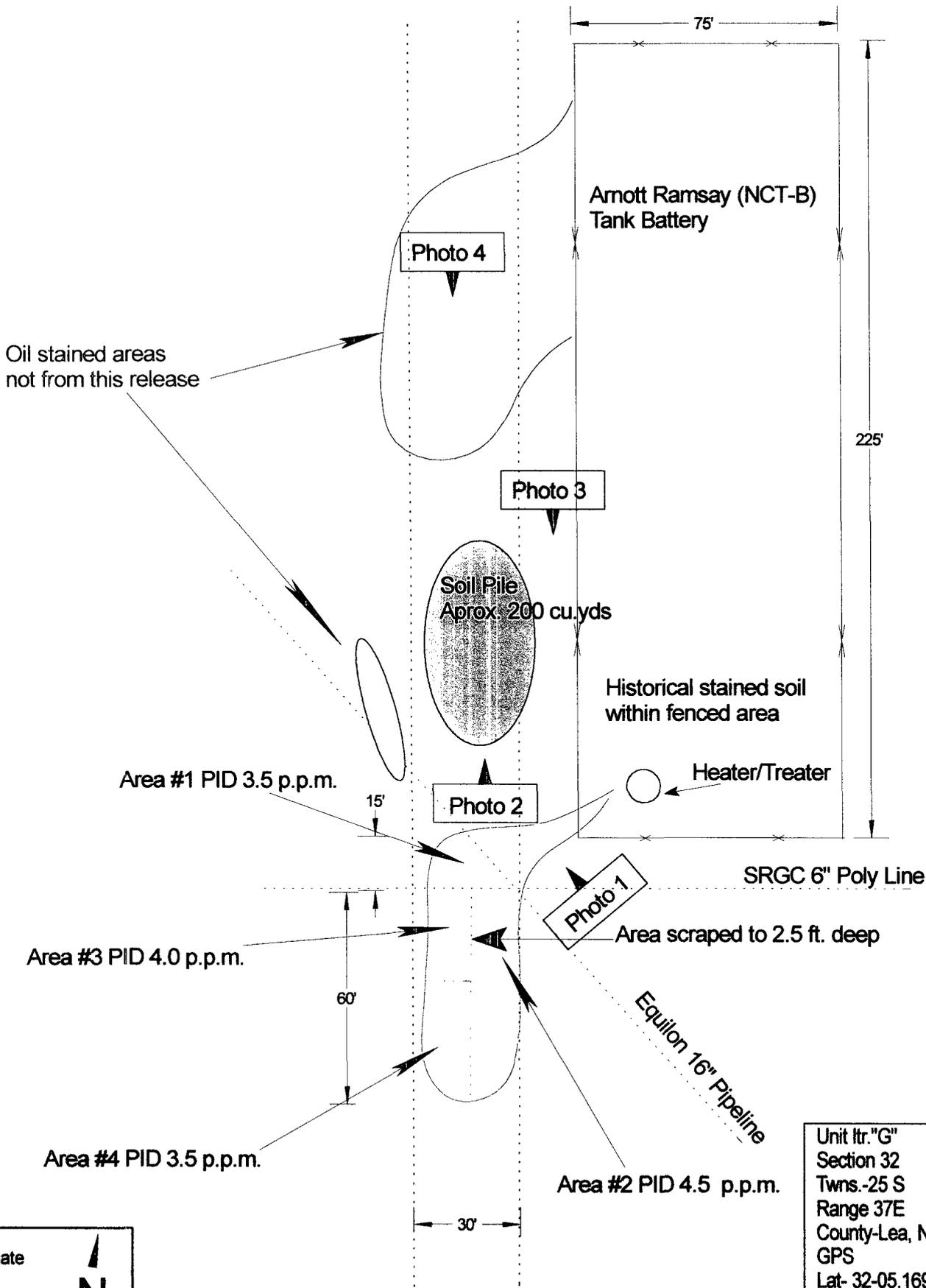
Clear Form WATERS Menu Help

AVERAGE DEPTH OF WATER REPORT 05/23/2001

| Bsn | Tws | Rng | Sec | Zone | X | Y | Wells | (Depth Water in Feet) | | |
|-----|-----|-----|-----|------|---|---|-------|-----------------------|-----|-----|
| | | | | | | | | Min | Max | Avg |
| CP | 25S | 37E | 29 | | | | 5 | 187 | 250 | 219 |

Record Count: 5





Oil stained areas not from this release

Photo 4

Photo 3

Soil Pile
Aprox. 200 cu.yds

Arnott Ramsay (NCT-B)
Tank Battery

Historical stained soil
within fenced area

Heater/Treater

Photo 2

Area #1 PID 3.5 p.p.m.

15'

SRGC 6" Poly Line

Photo 1

Area scraped to 2.5 ft. deep

Area #3 PID 4.0 p.p.m.

60'

Equilon 16" Pipeline

Area #4 PID 3.5 p.p.m.

Area #2 PID 4.5 p.p.m.

30'

Unit Tr."G"
Section 32
Twns.-25 S
Range 37E
County-Lea, N.M.
GPS
Lat- 32-05.169 N
Long-103-11.206 W

Approximate
Scale 1"= 40' **N**

| | | |
|------------|-----------------------------------------|----------|
| MCC | SITE PLAN: Arnott Ramsay (NCT-B) | 01061 |
| | Doyle Hartman Oil Operators | Figure 1 |

Photo 1

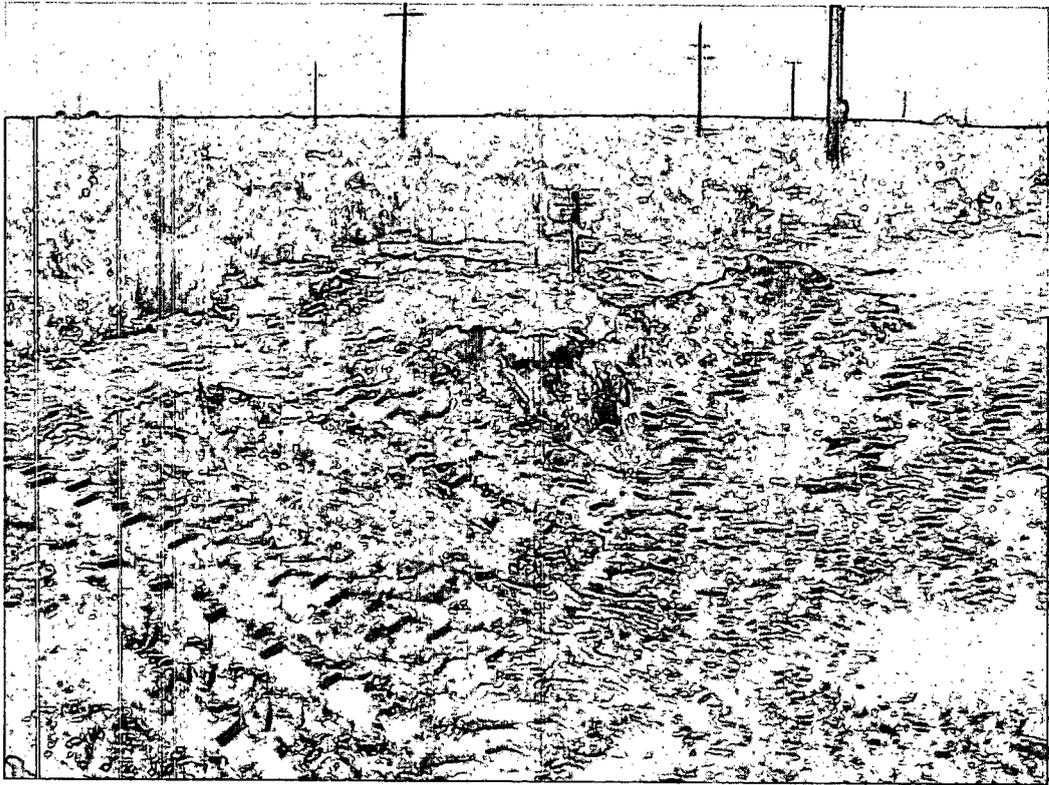
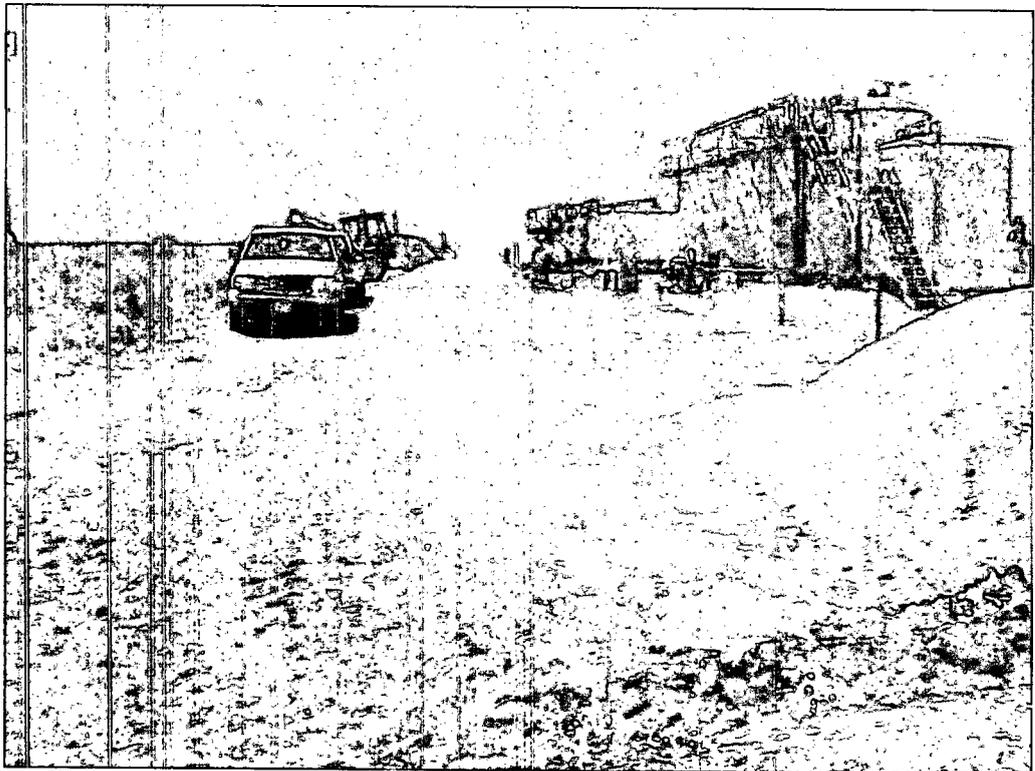


Photo 2



Doyle Hartman Arnott Ramsay (NCT-B) Job #01061

During Excavation and Sampling Event 5/22/01

Photo 3

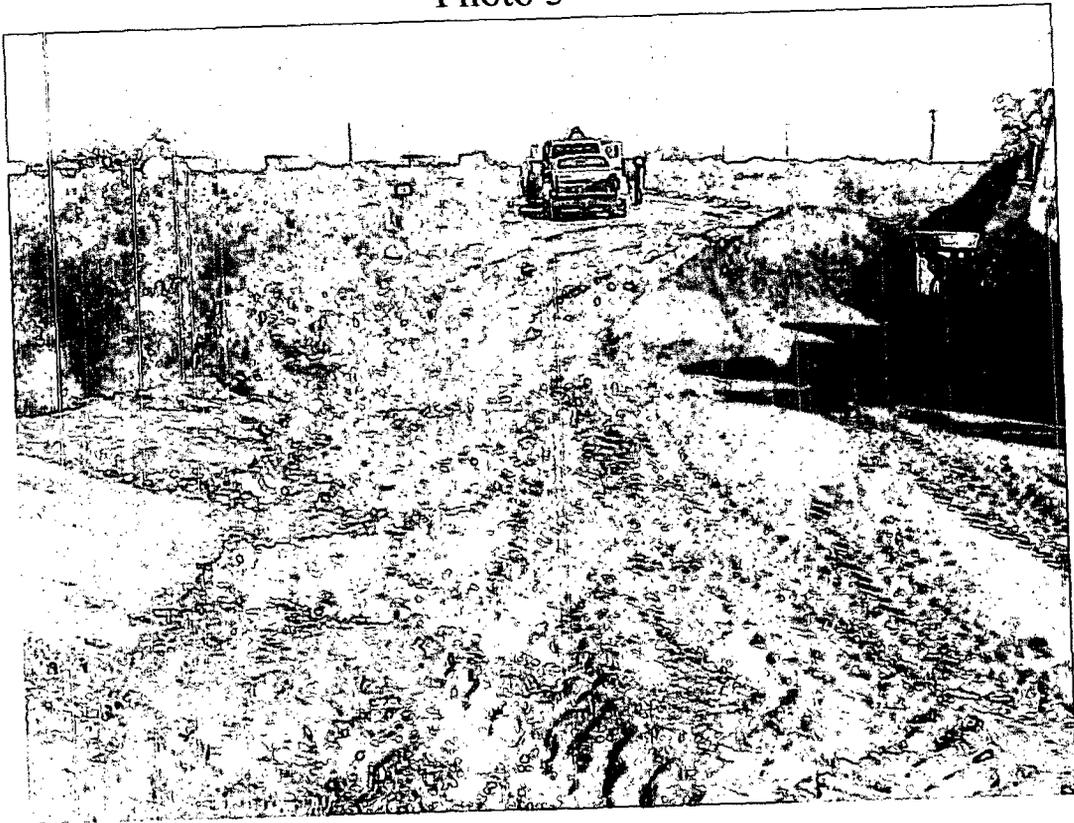
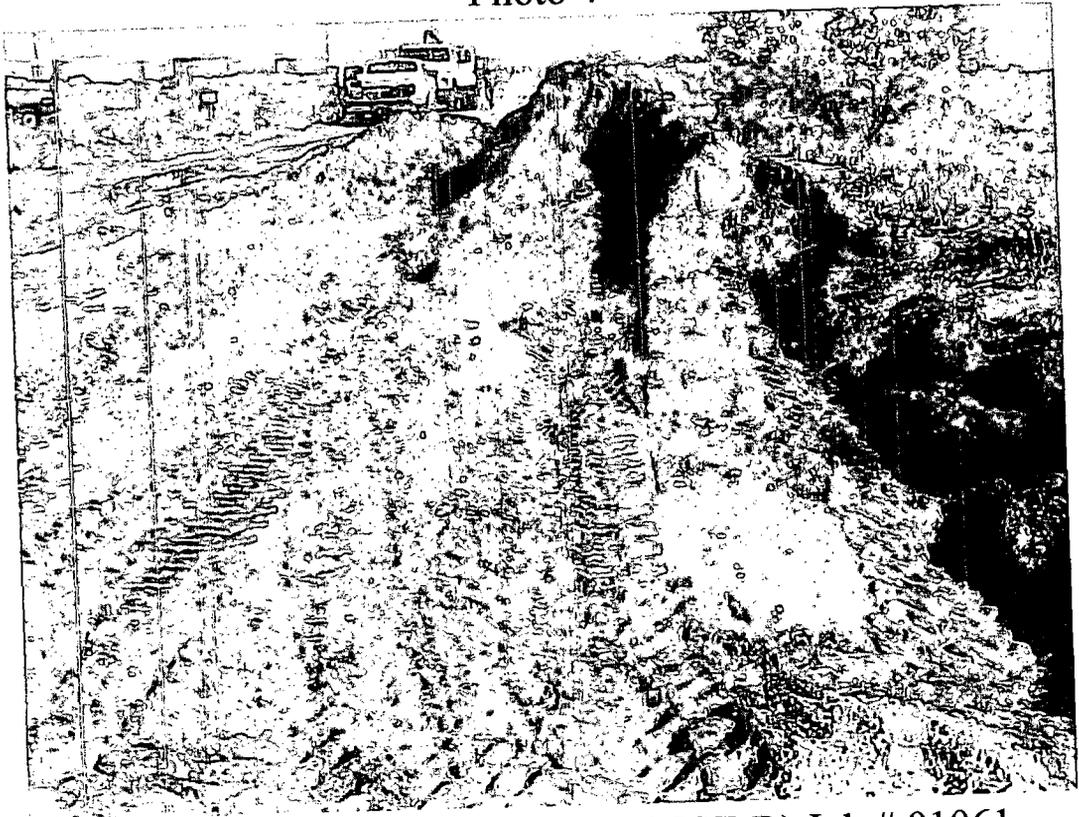


Photo 4



Doyle Hartman Arnott Ramsay (NCT-B) Job # 01061

During Excavation and Sampling Event 5/22/01

Oil stained areas
not from this release

Photo 5

Arnott Ramsay (NCT-B)
Tank Battery

225'

Facility Berm

Historical stained soil
within fenced area

Heater/Treater

Stained area

SRGC 6" Poly Line

Lease Road

88'

New
Caliche

Equilon 16" Pipeline

Photo 6

30'

Unit ltr."G"
Section 32
Twns.-25 S
Range 37E
County-Lea, N.M.
GPS
Lat- 32-05.169 N
Long-103-11.206 W

Approximate
Scale 1"= 40'



MCC

SITE PLAN: Arnott Ramsay (NCT-B)

01061

Doyle Hartman Oil Operators

Figure 2

Photo 5

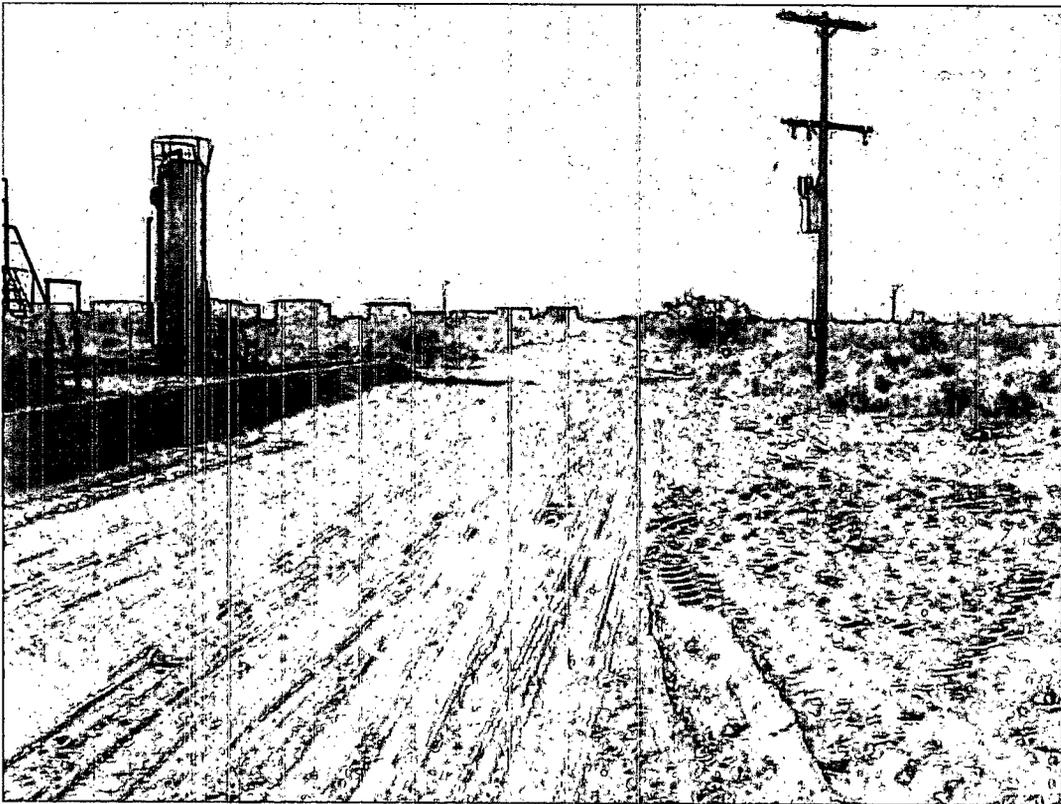
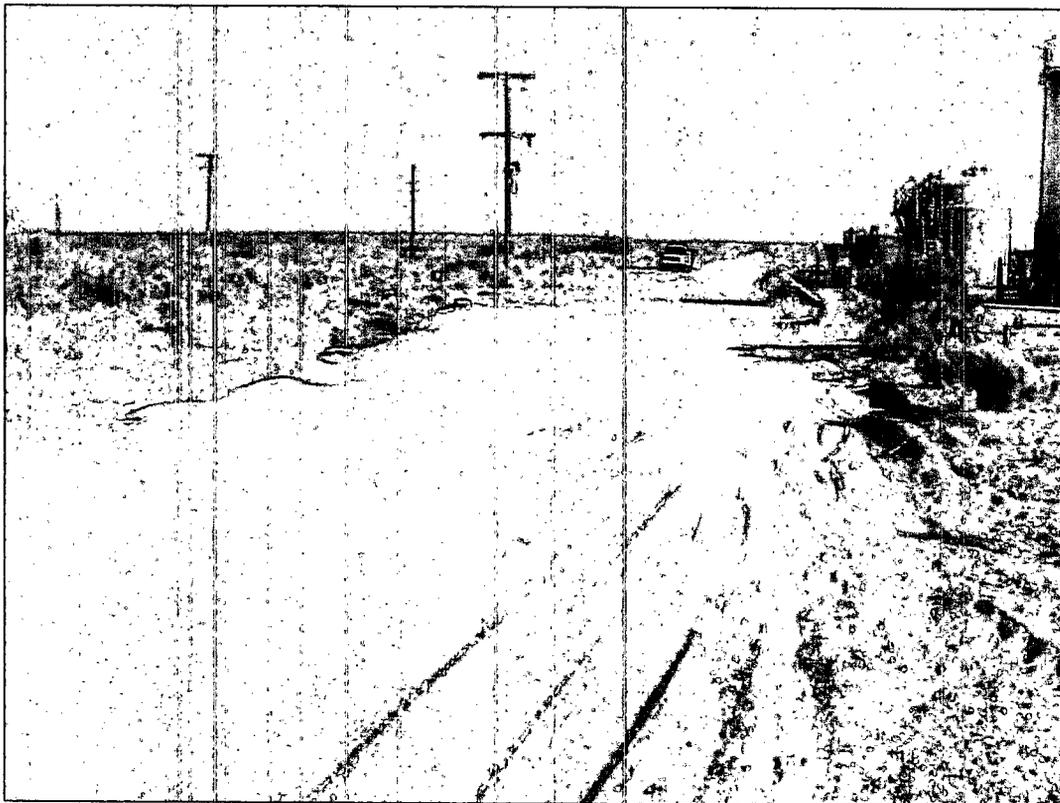


Photo 6



Doyle Hartman Arnott Ramsay (NCT-B) Job # 01061

After soil removal and backfill 5/24/01

District I - (505) 393-6161

P.O. Box 1940
Hobbs, NM 88241-1980

District II - (505) 748-1283

811 So. First
Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd.
Aztec, NM 87410

District IV - (505) 827-7131

State of New Mexico

Energy Minerals and Natural Resources Department

Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505

(505) 827-7131

Form C-141

Originated 2/13/97

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 Doyle Hartman Oil Operator | Contact E. Smith |
| Address Hwy. 128 West of Jal | Telephone No. 505-395-3367 |
| Facility Name Arnott Ramsay (NCT-B) | Facility Type Tank Battery |

| | | |
|---------------------------------------|---------------|-----------|
| Surface Owner State of N.M. | Mineral Owner | Lease No. |
|---------------------------------------|---------------|-----------|

LOCATION OF RELEASE

| Unit letter | Section | Township | Range | Feet from | Nor/So Line | Feet from | East/West Line | County |
|-------------|---------|----------|-------|-----------|-------------|-----------|----------------|--------|
| G | 32 | 25 S | R37E | | | | | Lea |

NATURE OF RELEASE

| | | |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------|
| Type of Release Crude oil | Volume of Release 45 bls | Volume Rec 40 bls |
| Source of Release Heater/Treater | Date and Hour of Occurrence no known | Date and Hour of Discovery 8:00 a.m. 5/22/01 |
| Was immediate Notice Given? <input type="checkbox"/> yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/R | If YES, To Whom? NMOCD Hobbs, New Mexico | |
| By Whom? E. Smith/ Doyle Hartman Emp. | Date and Hour 4:00 p.m. 5/22/01 | |
| Was a Watercourse reached? NO | If YES, Volume Impacting the Watercourse. | |

If a Water course was impacted, Describe Fully*
N/A

Describe Cause of Problem and Remedial Action Taken.*

Problem caused by internal corrosion. Heater by-passed. Tube will be replaced

Describe Area Affected and Cleanup Action Taken.*

Tank battery yard and lease road. Oil soaked soil scraped into pile pending sampling, and removal

Approximately 200 cubic yards of soil has been stockpiled in the lease road.

Describe General Conditions Prevailing (Temperature, Precipitation, etc).*

Clear, Dry, approx. 75 degrees.

I here by certify that the information given above is true and complete to the best of my knowledge and belief

Signature:

Printed Name:

EDDIE SMITH

Title:

Foreman

Oil Conservation Division

Approved by
District Supvsr:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached

Date: 5/23/01

Phone: 505-395-3367

ORIGINAL

District I - (505) 393-6161
 P. O. Box 1980
 Hobbs, NM 88241-1980
 District II - (505) 748-1283
 811 S. First
 Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Road
 Aztec, NM 87410
 District IV - (505) 827-7131

New Mexico
 Energy Minerals and Natural Resources Department
 Oil Conservation Division
 2040 South Pacheco Street
 Santa Fe, New Mexico 87505
 (505) 827-7131

Form C-138
 Originated 8/8/95

Submit Original
 Plus 1 Copy
 to appropriate
 District Office

ORIGINAL

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 1. RCRA Exempt: <input checked="" type="checkbox"/> Non-Exempt: <input type="checkbox"/> | 4. Generator <u>Doyle Hartman</u> |
| Verbal Approval Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | 5. Originating Site <u>Arnett Rensy B</u> |
| 2. Management Facility Destination <u>B+K Landfarm</u> | 6. Transporter <u>Concho Pipeline Contr</u> |
| 3. Address of Facility Operator <u>P.O. Box 398 Jct NM 88252</u> | 8. State <u>NM</u> |
| 7. Location of Material (Street Address or ULSTR): <u>" 6, 32, 255, 37E"</u> | |
| 9. Circle One: <input checked="" type="radio"/> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <input type="radio"/> B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport. | |

BRIEF DESCRIPTION OF MATERIAL:

Approx 200 cubic yards Crude Oil Saturated Soil

Estimated Volume: 200 cy Known Volume (to be entered by the operator at the end of the haul) 152 cy

SIGNATURE: Jay Anthony TITLE: operator DATE: 5-23-2001
Waste Management Facility Authorized Agent
 TYPE OR PRINT NAME: Jay Anthony TELEPHONE NO. 505-395-3264

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____
 APPROVED BY: _____ TITLE: _____ DATE: _____

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

MERRYMAN CONSTRUCTION
ATTN: MR. JOHN SAVOIE
P.O. BOX 1030
JAL, N.M. 88252
FAX: 505-395-3476

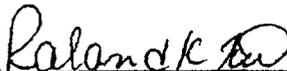
Sample Type: Soil
Sample Condition: Intact/ Iced/ 4 deg C
Project #: 01061
Project Name: Arnot Ramsey "B"
Project Location: South of Jal

Sampling Date: 05/22/01
Receiving Date: 05/23/01
Analysis Date: 05/23/01

| ELT# | FIELD CODE | GRO C6-C10 mg/kg | DRO >C10-C28 mg/kg |
|-------|--------------|------------------------|--------------------------|
| 40403 | Area 1 Comp. | <10 | <10 |
| 40404 | Area 2 Comp. | <10 | <10 |
| 40405 | Area 3 Comp. | <10 | <10 |
| 40406 | Area 4 Comp. | <10 | <10 |
| 40407 | Stock Pile | 1114 | 4044 |

| | | |
|-----------------------|------|------|
| QUALITY CONTROL | 525 | 442 |
| TRUE VALUE | 500 | 500 |
| % INSTRUMENT ACCURACY | 105 | 88 |
| SPIKED AMOUNT | 500 | 500 |
| ORIGINAL SAMPLE | 766 | 1833 |
| SPIKE | 1595 | 2713 |
| SPIKE DUP | 1743 | 3009 |
| % EXTRACTION ACCURACY | 114 | 98 |
| BLANK | <10 | <10 |

Methods: EPA SW 846-8015M GRO/DRO


Raland K. Tuttle

5-24-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

MERRYMAN CONSTRUCTION
ATTN: MR. JOHN SAVOIE
P.O. BOX 1030
JAL, N.M. 88252
FAX: 505-395-2776

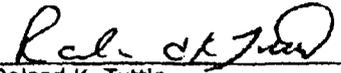
Sample Type: Soil
Sample Condition: Intact/ Iced/ 4 deg C
Project #: 01061
Project Name: Arnot Ramsey "B"
Project Location: South of Jal

Sampling Date: 05/22/01
Receiving Date: 05/23/01
Analysis Date: 05/23/01

| ELT# | FIELD CODE | BENZENE mg/kg | TOLUENE mg/kg | ETHYLBENZENE mg/kg | m,p-XYLENE mg/kg | o-XYLENE mg/kg |
|-------|--------------|------------------|------------------|-----------------------|---------------------|-------------------|
| 40404 | Area 2 Comp. | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |

| | | | | | |
|-----------------------|--------|--------|--------|--------|--------|
| QUALITY CONTROL | 0.100 | 0.102 | 0.099 | 0.217 | 0.103 |
| TRUE VALUE | 0.100 | 0.100 | 0.100 | 0.200 | 0.100 |
| % INSTRUMENT ACCURACY | 100 | 102 | 99 | 109 | 103 |
| SPIKED AMOUNT | 0.100 | 0.100 | 0.100 | 0.200 | 0.100 |
| ORIGINAL SAMPLE | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| SPIKE | 0.098 | 0.099 | 0.096 | 0.213 | 0.101 |
| SPIKE DUP | 0.099 | 0.100 | 0.097 | 0.216 | 0.103 |
| % EXTRACTION ACCURACY | 98 | 99 | 96 | 107 | 101 |
| BLANK | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |

METHODS: EPA SW 846-8021B ,5030



Roland K. Tuttle

5-24-01
Date

