

1310W - CK  
BT479  
sep - OK

SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL REGAS ADMINISTRATION

RECEIVED  
AUG 27 1999  
OIL CON. DIV.  
DIST. 3

OIL CON. DIV.  
DIST. 3

**Pit Location:** Pit dimensions: length 58', width 60', depth 12'  
(Attach diagram)  
Reference: wellhead X, other \_\_\_\_\_  
Footage from reference: 330'  
Direction from reference: 3 Degrees X East of North X  
West of South \_\_\_\_\_

**RANKING SCORE (TOTAL POINTS):**

BJ4791 BLOW PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 12/19/96

Remediation Method: Excavation ☒ Approx. cubic yards 400  
 Check all appropriate (options) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite \_\_\_\_\_  
 (i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation, BEDROCK BOTTOM.Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents  
 Closure Sampling: \_\_\_\_\_  
 (if multiple samples, attach sample results and diagram of sample locations and depths)  
 Sample depth 9' (NORTH SIDEWALL)  
 Sample date 12/19/96 Sample time 1145

## Sample Results

|                 |       |            |                |       |       |
|-----------------|-------|------------|----------------|-------|-------|
| Soil: Benzene   | (ppm) | _____      | Water: Benzene | (ppb) | _____ |
| Total BTEX      | (ppm) | _____      | Toluene        | (ppb) | _____ |
| Field Headspace | (ppm) | <u>0.0</u> | Ethylbenzene   | (ppb) | _____ |
| TPH             | (ppm) | <u>28</u>  | Total Xylenes  | (ppb) | _____ |

Groundwater Sample: Yes \_\_\_\_\_ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 12/19/96 PRINTED NAME Buddy D. Shaw  
 SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: Kenn C. Marshall DATE: 1-23-97

|                      |  |   |
|----------------------|--|---|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC.<br>P.O. BOX 87, BLOOMFIELD, NM 87413<br>(505) 632-1199 | LOCATION NO: <u>85479</u><br>C.O.C. NO: _____ |
|----------------------|--|---|

|   |   |
|---|---|
| FIELD REPORT: CLOSURE VERIFICATION  | PAGE No: <u>1</u> of <u>1</u>                         |
| LOCATION: NAME: <u>JICARILLA CONTRACT</u> WELL #: <u>155-23</u> PIT: <u>Blow</u>                              | DATE STARTED: <u>12/19/96</u><br>DATE FINISHED: _____ |
| QUAD/UNIT: <u>N</u> SEC: <u>32</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>Nm</u> CNTY: <u>LA</u> ST: <u>NM</u> | ENVIRONMENTAL SPECIALIST: <u>NV</u>                   |
| QTR/FOOTAGE: <u>SE 1/4</u> <u>SW 1/4</u> CONTRACTOR: <u>P+S</u>   |   |

|  |
|--|
| EXCAVATION APPROX. <u>58</u> FT. x <u>60</u> FT. x <u>12</u> FT. DEEP. CUBIC YARDAGE: <u>400</u> |
| DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARMED</u>                          |
| LAND USE: <u>RANGE</u> LEASE: <u>JICA CONTR. #155</u> FORMATION: <u>CK/MV</u>                    |

|  |  |
|--|--|
| FIELD NOTES & REMARKS:   | PIT LOCATED APPROXIMATELY <u>330</u> FT. <u>N3E</u> FROM WELLHEAD.   |
| DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u> | CHECK ONE:<br><input checked="" type="checkbox"/> PIT ABANDONED<br><input type="checkbox"/> STEEL TANK INSTALLED<br><input type="checkbox"/> FIBERGLASS TANK INSTALLED |
| NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM   |  |
| SOIL AND EXCAVATION DESCRIPTION:   |  |

SIDEWALLS - OR. YELL. ORANGE SAND TO SILTY SAND, NON-COHESIVE DRY TO SLIGHTLY MOIST, FIRM TO HARD (DUE TO COLD TEMP.) NO APPARENT HC ODR IN ANY OF THE OUM SAMPLES, NO APPARENT HC STAINING OR ODR OBSERVED.

BOTTOM - BEDROCK, SANDSTONE, HARD, LT. MED. GRAY IN COLOR, SLIGHT HC ODR IN OUM SAMPLE.

BEDROCK BOTTOM CLOSED



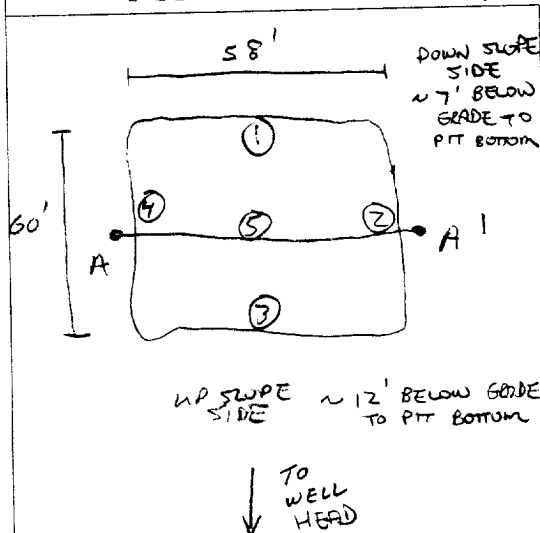
FIELD 418.1 CALCULATIONS

| TIME | SAMPLE I.D. | LAB No:  | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------|-------------|----------|------------|-----------|----------|---------|-----------|
| 1145 | ① @ 9'      | TPH-1864 | 5          | 20        | 1:1      | 7       | 28        |
|      |             |          |            |           |          |         |           |
|      |             |          |            |           |          |         |           |
|      |             |          |            |           |          |         |           |

PIT PERIMETER

OVM RESULTS

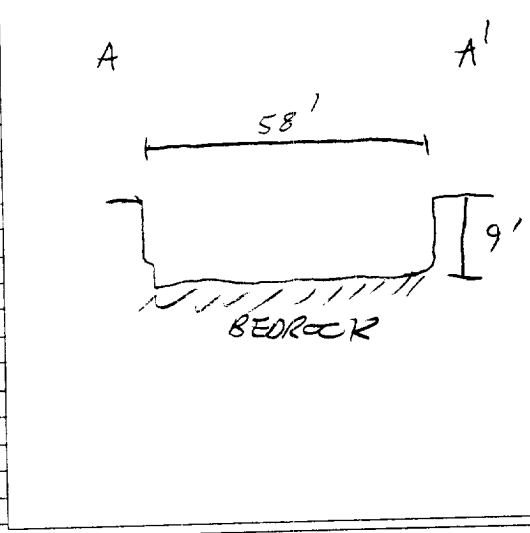
PIT PROFILE



| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1 @ 9'    | 0.0                       |
| 2 @ 7'    | 0.0                       |
| 3 @ 7'    | 0.0                       |
| 4 @ 8'    | 0.0                       |
| 5 @ 12'   | 39.4                      |
|           |                           |
|           |                           |
|           |                           |
|           |                           |
|           |                           |

| SAMPLE ID | ANALYSIS | TIME |
|-----------|----------|------|
|           |          |      |
|           |          |      |
|           |          |      |
|           |          |      |
|           |          |      |



|               |  |
|---------------|--|
| TRAVEL NOTES: | CALLOUT: <u>12/18/96 MORN.</u> ONSITE: <u>12/19/96 MORN.</u> |
|---------------|--|

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1  
TOTAL PETROLEUM HYDROCARBONS**

Client: AMOCO  
Sample ID: 1 @ 9'  
Project Location: Jicarilla Contract 155 - 23  
Laboratory Number: TPH-1864

Project #:  
Date Analyzed: 12-19-96  
Date Reported: 12-19-96  
Sample Matrix: Soil

| Parameter                                   | Result, mg/kg | Detection<br>Limit, mg/kg |
|---|---------------|---------------------------|
| -----                                       | -----         | -----                     |
| Total Recoverable<br>Petroleum Hydrocarbons | 28            | 20                        |

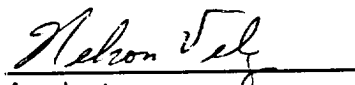
ND = Not Detectable at stated detection limits.

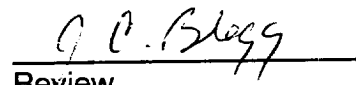
| QA/QC: | QA/QC Sample<br>TPH mg/kg | Duplicate<br>TPH mg/kg | %<br>*Diff. |
|--------|---------------------------|------------------------|-------------|
|        | -----                     | -----                  | -----       |
|        | 4640                      | 4400                   | 5.31        |

\*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total  
Recoverable, Chemical Analysis of Water and Waste,  
USEPA Storet No.4551, 1978

Comments: Blow Pit - BJ479

  
Analyst

  
Review

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**Field TPH-Worksheet**

\*\*\*\*\*

Max Characters:

Client:

AMOCO

Project #:

Sample ID:

1 @ 9'

Date Analyzed:

12-19-96

Project Location:

Jicarilla Contract 155 - 23

Date Reported:

12-19-96

Laboratory Number:

TPH-1864

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

7 mg/kg

TPH Result:

28.0 mg/kg

Reported TPH Result:

28 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original  
TPH mg/kg

Duplicate  
TPH mg/kg

%  
Diff.

-----  
4640

-----  
4400

-----  
5.31

Comments:

\*\*\*\*\*Max Characters\*\*\*\*\*

Comments:

Blow Pit - BJ479

BT 479

**AND OIL & GAS ADMINISTRATION**

|   |  |   |  |
|---|--|---|--|
| Operator: <u>AMOCO PRODUCTION COMPANY</u>   |  | Telephone: <u>(505) 326-9200</u>                                      |  |
| Address: <u>200 Amoco Court, Farmington, NM 87401</u>   |  |   |  |
| Facility or Well Name: <u>JICARILLA CONTRACT # 155-23</u>   |  |   |  |
| Location: Unit or Qtr/Qtr Sec <u>N</u> Sec <u>32</u> T <u>26N</u> R <u>5W</u> County <u>RIO ARRIBA</u>  |  |   |  |
| Pit Type: Separator <input checked="" type="checkbox"/> Dehydrator <input type="checkbox"/> Other <input type="checkbox"/>  |  |   |  |
| Land Type: <u>RANGE</u>   |  |   |  |
| Pit Location: Pit dimensions: length <u>23'</u> , width <u>32'</u> , depth <u>7'</u><br>(Attach diagram) Reference: wellhead <input checked="" type="checkbox"/> , other <input type="checkbox"/><br>Footage from reference: <u>183'</u><br>Direction from reference: <u>20</u> Degrees <input checked="" type="checkbox"/> East of North <input checked="" type="checkbox"/><br>West South |  |   |  |
| Depth To Groundwater:<br>(Vertical distance from<br>contaminants to seasonal<br>high water elevation of<br>groundwater)   |  | Less than 50 feet<br>50 feet to 99 feet<br>Greater than 100 feet      | (20 points)<br>(10 points)<br>( 0 points) <u>0</u> |
| Distance to an Ephemeral Stream<br>(Downgradient dry wash greater than<br>ten feet in width)  |  | Less than 100 feet<br>Greater than 100 feet                           | (10 points)<br>( 0 points) <u>0</u>                |
| Distance to Nearest Lake, Playa, or Watering Pond<br>(Downgradient lakes, playas and<br>livestock or wildlife watering ponds)   |  | Less than 100 feet<br>Greater than 100 feet                           | (10 points)<br>( 0 points) <u>0</u>                |
| Wellhead Protection Area:<br>(Less than 200 feet from a private<br>domestic water source, or: less than<br>1000 feet from all other water sources)  |  | Yes<br>No   | (20 points)<br>( 0 points) <u>0</u>                |
| Distance To Surface Water:<br>(Horizontal distance to perennial<br>lakes, ponds, rivers, streams, creeks,<br>irrigation canals and ditches)   |  | Less than 100 feet<br>100 feet to 1000 feet<br>Greater than 1000 feet | (20 points)<br>(10 points)<br>( 0 points) <u>0</u> |
| RANKING SCORE (TOTAL POINTS):   |  |   | <u>0</u>   |

Date Remediation Started: \_\_\_\_\_ Date Completed: 12/19/96

Remediation Method: Excavation ☒ Approx. cubic yards 125  
Check all appropriate (options) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite \_\_\_\_\_  
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation . BEDROCK BOTTOM . SPRAYED  
w/ FERTILIZER .

Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:  
Closure Sampling:  
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 4' (WEST SIDEWALL)

Sample date 12/19/96 Sample time 1040

Sample Results

|                 |       |               |                |       |       |
|-----------------|-------|---------------|----------------|-------|-------|
| Soil: Benzene   | (ppm) | <u>0.179</u>  | Water: Benzene | (ppb) | _____ |
| Total BTEX      | (ppm) | <u>41.600</u> | Toluene        | (ppb) | _____ |
| Field Headspace | (ppm) | <u>205</u>    | Ethylbenzene   | (ppb) | _____ |
| TPH             | (ppm) | <u>4,800</u>  | Total Xylenes  | (ppb) | _____ |

Groundwater Sample: Yes \_\_\_\_\_ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 12/19/96 PRINTED NAME Buddy D. Shaw  
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: Kenn C. Mammill DATE: 1-23-97

| CLIENT: <u>AMOCO</u>   | BLAGG ENGINEERING, INC.<br>P.O. BOX 87, BLOOMFIELD, NM 87413<br>(505) 632-1199 | LOCATION NO: <u>BJ479</u><br>C.O.C. NO: _____  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
|--|--|--|------------|-------------|----------|------------|------------|----------|---------|-------------|--|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|---------------------------|--------|-----|--------|-----|--------|-----|--------|-----|--------|------|
| FIELD REPORT: CLOSURE VERIFICATION   |  | PAGE No: <u>1</u> of <u>1</u>  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| LOCATION: NAME: <u>JICARILLA CONTRACT WELL # 155-23 PIT: SEP</u>   |  | DATE STARTED: <u>12/19/96</u><br>DATE FINISHED: _____  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| QUAD/UNIT: <u>N SEC: 32 TWP: 26N RNG: SW PM: NM CNTY: RA ST: NM</u>  |  | ENVIRONMENTAL SPECIALIST: <u>NV</u>  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| QTR/FOOTAGE: <u>SE(4 SW(4</u> CONTRACTOR: <u>P+S</u>   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| EXCAVATION APPROX <u>23</u> FT. x <u>32</u> FT. x <u>7</u> FT. DEEP. CUBIC YARDAGE: <u>125</u>   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARMED</u>  |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| LAND USE: <u>RANGE</u> LEASE: <u>JICA. CONTR. #155</u> FORMATION: <u>CK/MV</u>   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>183</u> FT. <u>N20E</u> FROM WELLHEAD.   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u>   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM   |  | CHECK ONE:<br><input checked="" type="checkbox"/> PIT ABANDONED<br><input type="checkbox"/> STEEL TANK INSTALLED<br><input type="checkbox"/> FIBERGLASS TANK INSTALLED |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| SOIL AND EXCAVATION DESCRIPTION:   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| SIDEWALLS - DR. YELL. ORANGE TO OLIVE GRAY SAND TO SILTY CLAY, NON-PLASTIC, DRY (DUE TO COLD TEMP.) TO SLIGHTLY MOIST, FIRM TO DENSE STRONG HC ODOR IN WEST SIDEWALL OUM SAMPLE (SEE PTV PROFILE FOR EXPLANATION).   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| BOTTOM - BEDROCK, SANDSTONE HARD DR. GRAY IN COLOR SLIGHT HC ODOR IN OUM SAMPLE, WILL SPRAY WEST SIDEWALL W/ FERTILIZER.   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>BEDROCK</u> <u>CLOSED</u></p> <p>SCALE</p> <p>0  FT</p> </div> <div style="width: 40%;"> <p>FIELD 418.1 CALCULATIONS</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>ML. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> <div style="width: 25%;"> <p>PIT PERIMETER</p> </div> <div style="width: 30%;"> <p>OVM RESULTS</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1 e 3'</td><td>0.0</td></tr> <tr><td>2 e 4'</td><td>0.0</td></tr> <tr><td>3 e 4'</td><td>0.0</td></tr> <tr><td>4 e 4'</td><td>205</td></tr> <tr><td>5 e 7'</td><td>49.3</td></tr> </tbody> </table> </div> <div style="width: 30%;"> <p>PIT PROFILE</p> </div> </div> |  |  | TIME       | SAMPLE I.D. | LAB No:  | WEIGHT (g) | ML. FREON  | DILUTION | READING | CALC. ppm   |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | SAMPLE ID | FIELD HEADSPACE PID (ppm) | 1 e 3' | 0.0 | 2 e 4' | 0.0 | 3 e 4' | 0.0 | 4 e 4' | 205 | 5 e 7' | 49.3 |
| TIME   | SAMPLE I.D.  | LAB No:  | WEIGHT (g) | ML. FREON   | DILUTION | READING    | CALC. ppm  |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
|  |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
|  |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
|  |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| SAMPLE ID  | FIELD HEADSPACE PID (ppm)  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| 1 e 3'   | 0.0  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| 2 e 4'   | 0.0  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| 3 e 4'   | 0.0  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| 4 e 4'   | 205  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| 5 e 7'   | 49.3   |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>UP SLOPE ~7' BELOW GRADE TO PIT BOTTOM</p> <p>DOWN SWPPE SIDE ~5' BELOW GRADE TO PIT BOTTOM</p> <p>SEP</p> <p>TO WELL HEAD</p> </div> <div style="width: 40%;"> <p>LAB SAMPLES</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>① e 4'</td> <td>TPH   RTEX</td> <td>12/40</td> </tr> <tr> <td> </td> <td>9015 / 9020</td> <td> </td> </tr> <tr> <td colspan="3" style="text-align: center;">BOTH PASSED</td> </tr> </tbody> </table> </div> <div style="width: 30%;"> <p>PIT PROFILE</p> </div> </div>  |  |  | SAMPLE ID  | ANALYSIS    | TIME     | ① e 4'     | TPH   RTEX | 12/40    |         | 9015 / 9020 |  | BOTH PASSED |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| SAMPLE ID  | ANALYSIS   | TIME   |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| ① e 4'   | TPH   RTEX   | 12/40  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
|  | 9015 / 9020  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| BOTH PASSED  |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |
| TRAVEL NOTES: CALLOUT: <u>12/18/96</u> <u>MORN.</u> ONSITE: <u>12/19/96</u> <u>MORN.</u>   |  |  |            |             |          |            |            |          |         |             |  |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |           |                           |        |     |        |     |        |     |        |     |        |      |



EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

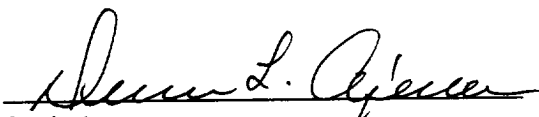
|                      |                 |                     |          |
|----------------------|-----------------|---------------------|----------|
| Client:              | Blagg / Amoco   | Project #:          | 04034    |
| Sample ID:           | 4 @ 4'          | Date Reported:      | 12-20-96 |
| Laboratory Number:   | A851            | Date Sampled:       | 12-19-96 |
| Chain of Custody No: | 4974            | Date Received:      | 12-20-96 |
| Sample Matrix:       | Soil            | Date Extracted:     | 12-20-96 |
| Preservative:        | Cool            | Date Analyzed:      | 12-20-96 |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH |


| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 785                      | 0.2                      |
| Diesel Range (C10 - C28)     | 4,010                    | 0.1                      |
| Total Petroleum Hydrocarbons | 4,800                    | 0.2                      |

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla Contract #155-23 Separator Pit.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

|                    |               |                     |          |
|--------------------|---------------|---------------------|----------|
| Client:            | Blagg / Amoco | Project #:          | 04034    |
| Sample ID:         | 4 @ 4'        | Date Reported:      | 12-20-96 |
| Laboratory Number: | A851          | Date Sampled:       | 12-19-96 |
| Chain of Custody:  | 4974          | Date Received:      | 12-20-96 |
| Sample Matrix:     | Soil          | Date Analyzed:      | 12-20-96 |
| Preservative:      | Cool          | Date Extracted:     | 12-20-96 |
| Condition:         | Cool & Intact | Analysis Requested: | BTEX     |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene      | 179                      | 17.5                     |
| Toluene      | 8,990                    | 16.7                     |
| Ethylbenzene | 3,100                    | 15.2                     |
| p,m-Xylene   | 21,100                   | 21.6                     |
| o-Xylene     | 8,260                    | 10.4                     |
| Total BTEX   | 41,600                   |                          |

ND - Parameter not detected at the stated detection limit.

| Surrogate Recoveries: | Parameter          | Percent Recovery |
|-----------------------|--------------------|------------------|
|                       | Trifluorotoluene   | 102 %            |
|                       | Bromofluorobenzene | 96 %             |

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: Jicarilla Contract #155-23 Separator Pit.

  
Analyst

  
Review

San Juan repro Form 57B-81

87479

JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200  
Address: 200 Amoco Court, Farmington, NM 87401  
Facility or Well Name: JICARILLA CONTRACT #155 - 23  
Location: Unit or Qtr/Qtr Sec N Sec 32 T 26N R 5W County RIO ARIZONA  
Land Type: RANGE

Date Remediation Started: 8/14/96 Date Completed: 8/19/98  
Remediation Method: Landfarmed        Approx. cubic yards 525  
Composted         
Other STOCKPILED

Depth To Groundwater: (pts.) 0  
Distance to an Ephemeral Stream (pts.) 0  
Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0  
Wellhead Protection Area: (pts.) 0  
Distance To Surface Water: (pts.) 0  
RANKING SCORE (TOTAL POINTS): 0

Final Closure Sampling:  
Sampling Date: 8/18/98 Time: 1300  
Sample Results:  
Field Headspace (ppm) 0.0  
TPH (ppm) 1.4 Method 8215  
Other       

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/19/98 PRINTED NAME Buddy D. Shaw  
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO        (REASON) use as Backfill

SIGNED: Ken C. M... DATE: 9-9-98

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: 8J479C.D.C. NO: 6047

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICA CONTR. 155 WELL #: 23 PITS: BLOWDATE STARTED: 8/18/98

DATE FINISHED: \_\_\_\_\_

QUAD/UNIT: N SEC: 32 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NMQTR/FOOTAGE: SE 1/4 SW 1/4CONTRACTOR: P & SENVIRONMENTAL  
SPECIALIST: NV

## SOIL REMEDIATION:

REMEDICATION SYSTEM: STOCKPILEDAPPROX. CUBIC YARDAGE: 525LAND USE: RANGELIFT DEPTH (ft): NA

## FIELD NOTES &amp; REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMOCB RANKING SCORE: 0 NMOCB TPH CLOSURE STD: 5000 PPM

8/14/98

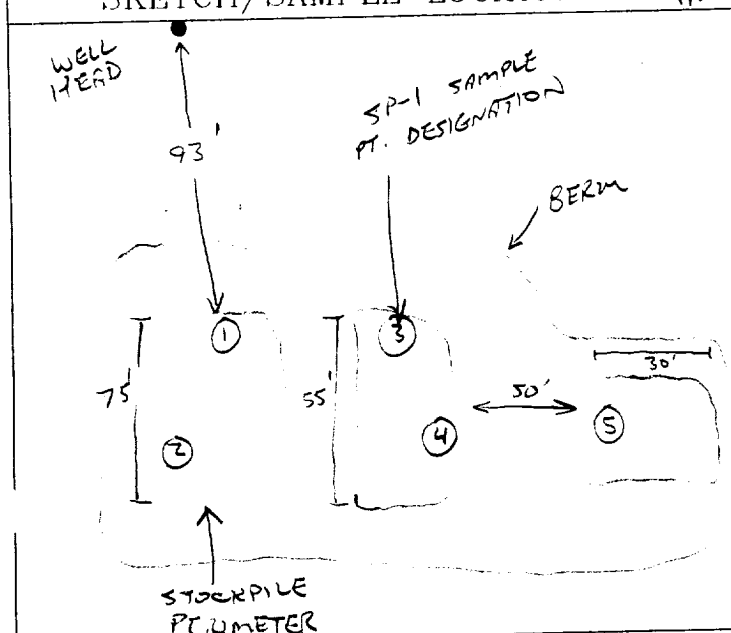
MOSTLY DR. YELL. ORANGE TO BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM,  
SOME CLAY OBSERVED & COLLECTED W/IN 5 FT. COMPOSITE SOME MED.  
GRAY DISCOLORATION OBSERVED W/IN SAMPLE PTS. ③ & ⑤, SAMPLE DEPTHS  
RANGED FROM 2' TO 4' INTO STOCKPILES, COMPOSITE SAMPLE COLLECTED  
FOR LAB ANALYSIS.

CLOSED

## FIELD 418.1 CALCULATIONS

| SAMP. TIME | SAMPLE I.D. | LAB No: | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------------|-------------|---------|------------|-----------|----------|---------|-----------|
|            |             |         |            |           |          |         |           |
|            |             |         |            |           |          |         |           |
|            |             |         |            |           |          |         |           |
|            |             |         |            |           |          |         |           |
|            |             |         |            |           |          |         |           |
|            |             |         |            |           |          |         |           |

## SKETCH/SAMPLE LOCATIONS



## OVM RESULTS

## LAB SAMPLES

| SAMPLE ID | FIELD HEADSPACE PID (ppm) | SAMPLE ID | ANALYSIS   | TIME | RESULTS |
|-----------|---------------------------|-----------|------------|------|---------|
| LF-1      | 0.0                       | LF-1      | TPH (8015) | 1100 | 1.4     |
|           |                           |           |            |      |         |
|           |                           |           |            |      |         |
|           |                           |           |            |      |         |
|           |                           |           |            |      |         |
|           |                           |           |            |      |         |

SCALE

0 FT

TRAVEL NOTES:

CALLOUT: NAONSITE: 8/18/98

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / AMOCO  
Sample ID: SP - 1  
Laboratory Number: D816  
Chain of Custody No: 6047  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

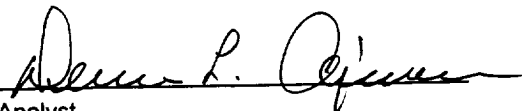
Project #: 04034-10  
Date Reported: 08-19-98  
Date Sampled: 08-18-98  
Date Received: 08-18-98  
Date Extracted: 08-19-98  
Date Analyzed: 08-19-98  
Analysis Requested: 8015 TPH

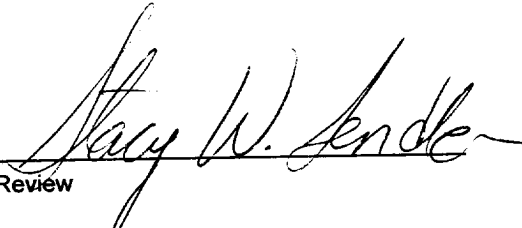
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 1.4                      | 0.2                      |
| Diesel Range (C10 - C28)     | ND                       | 0.1                      |
| Total Petroleum Hydrocarbons | 1.4                      | 0.2                      |

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Contract #155 - 23 Stockpiles. 5 Pt. Composite.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

6047

|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|--|--|--|---|--|---------------|-----------------------|--------------------------|-------------|--------------------------|------------|-------------|---------------|---------------|-------------------|-------------------|---------|-------------------------|--|
| Client / Project Name<br><b>BR66 / Amoco</b> |  |  | Project Location<br><b>STOCKPILES</b>   |  |               | ANALYSIS / PARAMETERS |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Client No.<br><b>04034-10</b>                |  |  | TICAPILUA COMPOST #155-23   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Sampler:<br><b>NTV</b>                       |  |  | Sample No./ Identification  |  |               | Sample Date           |                          | Sample Time |                          | Lab Number |             | Sample Matrix |               | No. of Containers |                   | Remarks |                         |  |
|  |  |  | <b>SP-1</b>   |  | <b>8/8/98</b> |                       | <b>1100</b>              |             | <b>2816</b>              |            | <b>5012</b> |               | <b>1</b>      |                   | <b>TPH (8015)</b> |         | <b>5 pr. Composites</b> |  |
|  |  |  | <b>(AS IN SAMMY)</b>  |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Relinquished by: (Signature)                 |  |  | <b>8/8/98</b>   |  | <b>1443</b>   |                       | Received by: (Signature) |             | <b>Robert R. Ogleman</b> |            | Date        |               | <b>8/8/98</b> |                   | <b>1443</b>       |         |                         |  |
| Relinquished by: (Signature)                 |  |  |   |  |               |                       | Received by: (Signature) |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Relinquished by: (Signature)                 |  |  |   |  |               |                       | Received by: (Signature) |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Relinquished by: (Signature)                 |  |  |   |  |               |                       | Received by: (Signature) |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Ref COCS 6045-6048                           |  |  | <div> <div>ENVIROTECH INC.</div> <div>5796 U.S. Highway 64<br/>Farmington, New Mexico 87401<br/>(505) 632-0615</div> </div> |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |
| Sample Receipt                               |  |  | Received Intact   |  | Y             |                       | N                        |             | N/A                      |            |             |               |               |                   |                   |         |                         |  |
|  |  |  | Cool - Ice/Blue Ice   |  | Y             |                       | N                        |             | N/A                      |            |             |               |               |                   |                   |         |                         |  |
|  |  |  |   |  |               |                       |                          |             |                          |            |             |               |               |                   |                   |         |                         |  |