

SECRET  
NATIONAL DEFENSE REF ID:  
A66541  
U.S. GOVERNMENT PRINTING OFFICE: 1964

END

**APPROVED**

**RANKING SCORE (TOTAL POINTS):** 50

Date Remediation Started: BRETT CUMMINS Date Completed: 4/15/98

Remediation Method: Excavation X

Approx. cubic yards 444

(Check all appropriate sections)

Landfarmed X

Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location:

Onsite X Offsite \_\_\_\_\_

(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: REMOVED CONTAMINATED SOIL, SPREAD

ON LOCATION IN SOIL FARM

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

Final Pit:

Sample location Pit Bottom - Center

4 BANKS N, S, E, W

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 25'

GAS ND (PPB)

DIE 36 (PPM)

method 8015M

Sample date 4/15/98

Sample time 12:20P

Pia 0.0

Sample Results

Soil: Benzene (ppm) N/A

Water: Benzene (ppb) N/A

Total BTEX (ppm) N/A

Toluene (ppb) N/A

Field Headspace (ppm) 0.0

Ethylbenzene (ppb) N/A

TPH (ppm) GAS ND (PPB)

Total Xylenes (ppb) N/A

DIE ND (PPM)

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

5/21/98

PRINTED NAME

SHAWN ADAMS

SIGNATURE

Shawn Adams

AND TITLE

ENV. CONSULTANT

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

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

SIGNED: Larena L. Callado

DATE:

May 21, 1998

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 24-Apr-98

|                    |                                       |                            |                             |
|--------------------|---------------------------------------|----------------------------|-----------------------------|
| <b>Client:</b>     | Contract Environmental Services, Inc. | <b>Client Sample Info:</b> | Jicarilla Apache "F" Well 4 |
| <b>Work Order:</b> | 9804015                               | <b>Client Sample ID:</b>   | JF4-101; Floor              |
| <b>Lab ID:</b>     | 9804015-02A                           | <b>Matrix:</b>             | SOIL                        |
| <b>Project:</b>    | Jicarilla Apache "F" Well 4           | <b>Collection Date:</b>    | 4/15/98 12:20:00 PM         |
|                    |                                       | <b>COC Record:</b>         | 4326                        |

| Parameter                      | Result | PQL           | Qual | Units | DF | Date Analyzed |
|--------------------------------|--------|---------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b>   |        | <b>SW8015</b> |      |       |    | Analyst: HR   |
| T/R Hydrocarbons: C10-C28      | ND     | 25            |      | mg/Kg | 1  | 4/22/98       |
| <b>GASOLINE RANGE ORGANICS</b> |        | <b>SW8015</b> |      |       |    | Analyst: DC   |
| T/R Hydrocarbons: C6-C10       | ND     | 180           |      | µg/Kg | 1  | 4/21/98       |
| Surr: Trifluorotoluene         | 93.0   | 70-130        |      | %REC  | 1  | 4/21/98       |

**Qualifiers:**

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 24-Apr-98

**Client:** Contract Environmental Services, Inc.

**Client Sample Info:** Jicarilla Apache "F" Well 4

**Work Order:** 9804015

**Client Sample ID:** JF4-100; Wall

**Lab ID:** 9804015-01A      **Matrix:** SOIL

**Collection Date:** 4/15/98 12:15:00 PM

**Project:** Jicarilla Apache "F" Well 4

**COC Record:** 4326

| Parameter                      | Result | PQL           | Qual | Units | DF | Date Analyzed |
|--------------------------------|--------|---------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b>   |        | <b>SW8015</b> |      |       |    | Analyst: HR   |
| T/R Hydrocarbons: C10-C28      | 36     | 25            |      | mg/Kg | 1  | 4/22/98       |
| <b>GASOLINE RANGE ORGANICS</b> |        | <b>SW8015</b> |      |       |    | Analyst: DC   |
| T/R Hydrocarbons: C6-C10       | ND     | 180           |      | µg/Kg | 1  | 4/21/98       |
| Surr: Trifluorotoluene         | 84.7   | 70-130        |      | %REC  | 1  | 4/21/98       |

**Qualifiers:** PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surr: - Surrogate

**CONTRACT ENVIRONMENTAL**

DATE 4/15/98 TIME STARTED 12:00 TIME FINISHED 12:45

SITE NAME Jicarilla Apache "F" well 4

PIT SIZE AT START x x PIT SIZE WHEN FINISHED x x

**P.I.D READINGS**

NORTH WALL #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME \_\_\_\_\_

SOUTH WALL #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME \_\_\_\_\_

EAST WALL #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME \_\_\_\_\_

WEST WALL #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME \_\_\_\_\_

WALL COMPOSITE #1 0.0 #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME 1215

FLOOR #1 0.0 #2 \_\_\_\_\_ #3 \_\_\_\_\_ FINALE TIME 1220

LAND FARM 1.0 SAMPLE TIME 1225

SPOIL PILE 0.0 SAMPLE TIME 1230

**REMARKS:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Time in 11:58

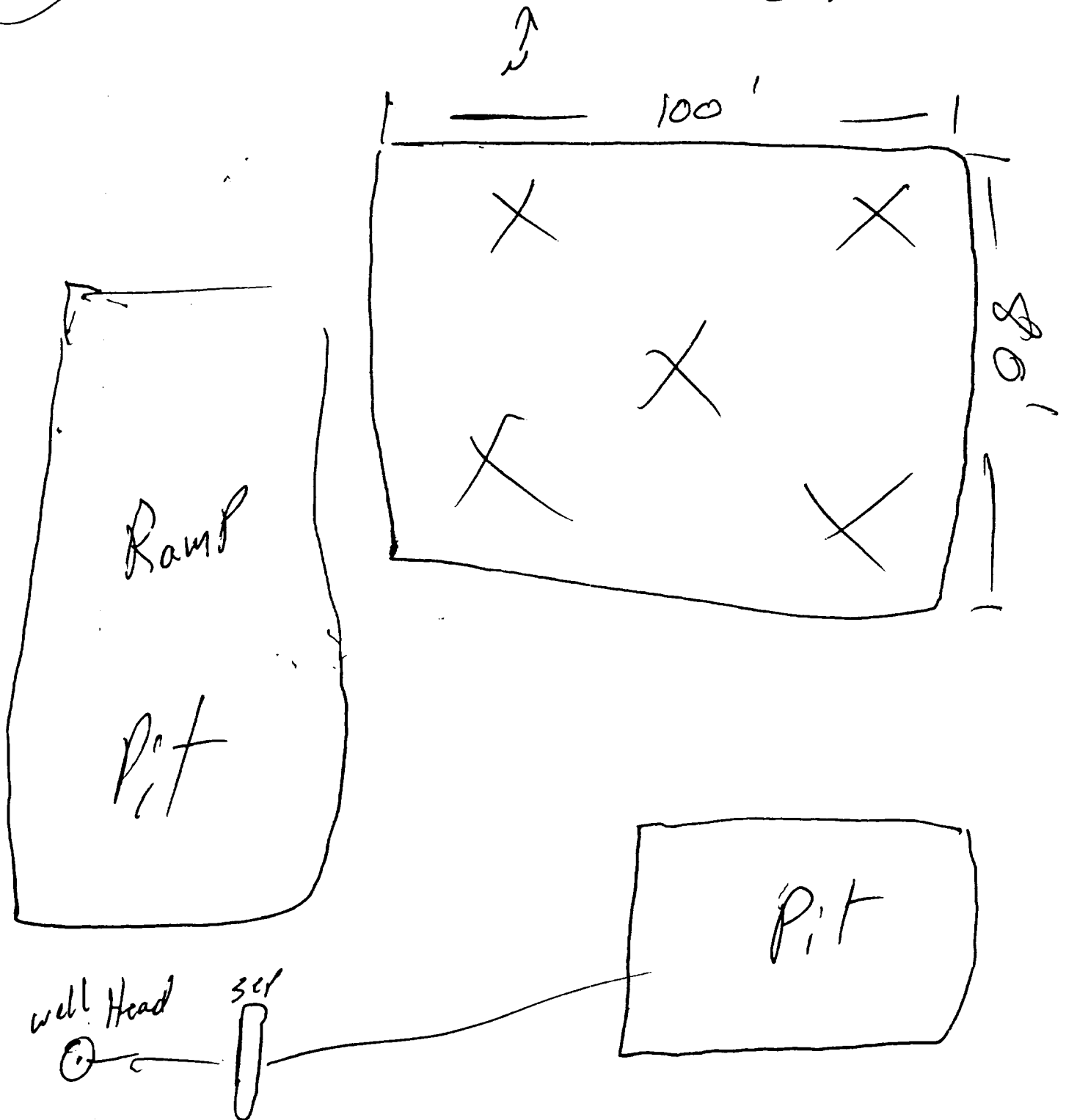
Time out 12:04

5/12/98

Jicarilla Apache "F" well 4

Pid 1.5

Time 1200



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

SUBMIT TO: JICARILLA APACHE TRIBE  
NATURAL RESOURCE DEPT.  
AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

**APPROVED**

Operator: ELM RIDGE RESOURCES Telephone: (505) 326-7099  
Address: 312 WEST LAPLATA STREET, FARMINGTON, NM 87401  
Facility or Well Name: JICARILLA APACHE "F" WELL #4 LANDFARM  
Location: Unit or Qtr/Qtr Sec J Sec 18 T 25N R 5W County RIO ARriba  
Land Type: \_\_\_\_\_

Date Remediation Started: BRETT CUMMINS Date Completed: 4/15/98  
Remediation Method: Landfirmed X Approx. cubic yards 444  
Composted \_\_\_\_\_  
Other \_\_\_\_\_

Depth To Groundwater: (pts.) 20  
Distance to an Ephemeral Stream (pts.) 10  
Distance to Nearest Lake, Playa,  
or Watering Pond (pts.) 0  
Wellhead Protection Area: (pts.) 20  
Distance To Surface Water: (pts.) 0

Final Closure Sampling:

Sampling Date: 5/12/98 Time: 12:00

Sample Results:

Field Headspace (ppm) 1.5 ppm  
TPH (ppm) Gas ND Method 8015 M  
DIE ND  
Other \_\_\_\_\_

RANKING SCORE (TOTAL POINTS): 50

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

DATE 5/22/98 PRINTED NAME SHAWN ADAMS  
SIGNATURE Shawn Adams AND TITLE ENV. CONSULTANT

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) May be used as backfill, if needed.

SIGNED: Karena L. Callado DATE: 22 DEC 98

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 24-Apr-98

**Client:** Contract Environmental Services, Inc.  
**Work Order:** 9804015  
**Lab ID:** 9804015-03A    **Matrix:** SOIL  
**Project:** Jicarilla Apache "F" Well 4

**Client Sample Info:** Jicarilla Apache "F" Well 4  
**Client Sample ID:** JF4-102; Landfarm  
**Collection Date:** 4/15/98 12:25:00 PM  
**COC Record:** 4326

| Parameter                      | Result | PQL           | Qual | Units | DF | Date Analyzed |
|--------------------------------|--------|---------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b>   |        | <b>SW8015</b> |      |       |    | Analyst: HR   |
| T/R Hydrocarbons: C10-C28      | 96     | 25            |      | mg/Kg | 1  | 4/22/98       |
| <b>GASOLINE RANGE ORGANICS</b> |        | <b>SW8015</b> |      |       |    | Analyst: DC   |
| T/R Hydrocarbons: C6-C10       | ND     | 180           |      | µg/Kg | 1  | 4/21/98       |
| Surr: Trifluorotoluene         | 90.8   | 70-130        |      | %REC  | 1  | 4/21/98       |

**Qualifiers:**

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

1 of 1



## CHAIN OF CUSTODY RECORD

4326

Date: 4/15/95

657 W. Maple • P. O. Box 2606 • Farmington NM 87499  
LAB: (505) 325-5667 • FAX: (505) 325-6256

Page        of       

|                                                     |  |             |  |
|-----------------------------------------------------|--|-------------|--|
| Purchase Order No.:                                 |  | Job No.     |  |
| Name <u>Shawn Adams</u>                             |  | Title       |  |
| Company <u>Contract Environmental</u>               |  |             |  |
| Address <u>P.O. Box 3726</u>                        |  |             |  |
| City, State, Zip <u>Farmington NM 87499</u>         |  |             |  |
| Telephone No. <u>325-1198</u>                       |  | Telex No.   |  |
| Sampling Location: <u>Ticorilla APAC 11" well 4</u> |  |             |  |
| Sampler: <u>James K. Kirby</u>                      |  |             |  |
| SAMPLE IDENTIFICATION                               |  | LAB ID      |  |
| JF4 100 wall                                        |  | 980-015-01A |  |
| JF4 101 Floor                                       |  | -02A        |  |
| JF4 102 Land Farm                                   |  | -03A        |  |
| JF4 103 Spoil Pile                                  |  | -04A        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 1230        |  |
| DATE                                                |  | TIME        |  |
| 4/15/98                                             |  | 1215        |  |
| 4/15/98                                             |  | 1230        |  |
| 4/15/98                                             |  | 1225        |  |
| 4/15/98                                             |  | 123         |  |

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 21-May-98

|                    |                                       |                            |                           |
|--------------------|---------------------------------------|----------------------------|---------------------------|
| <b>Client:</b>     | Contract Environmental Services, Inc. | <b>Client Sample Info:</b> | Jicarilla Apache F Well 4 |
| <b>Work Order:</b> | 9805038                               | <b>Client Sample ID:</b>   | JAF4-105 Land Farm        |
| <b>Lab ID:</b>     | 9805038-07A                           | <b>Matrix:</b>             | SOIL                      |
| <b>Project:</b>    | Land Farms                            | <b>Collection Date:</b>    | 5/12/98 12:00:00 PM       |
|                    |                                       | <b>COC Record:</b>         | 4381                      |

| Parameter                      | Result | PQL           | Qual | Units | DF | Date Analyzed |
|--------------------------------|--------|---------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b>   |        | <b>SW8015</b> |      |       |    | Analyst: DC   |
| T/R Hydrocarbons: C10-C28      | ND     | 25            |      | mg/Kg | 1  | 5/20/98       |
| <b>GASOLINE RANGE ORGANICS</b> |        | <b>SW8015</b> |      |       |    | Analyst: DC   |
| T/R Hydrocarbons: C6-C10       | ND     | 0.18          |      | mg/Kg | 1  | 5/18/98       |
| Surr: Trifluorotoluene         | 95.1   | 70-130        |      | %REC  | 1  | 5/18/98       |

**Qualifiers:**

|                                                         |                                                     |
|---------------------------------------------------------|-----------------------------------------------------|
| PQL - Practical Quantitation Limit                      | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit       | RI - Recovery outside accepted recovery limits      |
| J - Analyte detected below Practical Quantitation Limit | V - Value above quantitation range                  |
| B - Analyte detected in the associated Method Blank     | Surr - Surrogate                                    |

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

of

|                                                                |  |                         |  |
|----------------------------------------------------------------|--|-------------------------|--|
| Purchase Order No.:                                            |  | Job No.                 |  |
| Name: Shawn Adams                                              |  | Title:                  |  |
| Company: Contract Envtl                                        |  | Company:                |  |
| Address: P.O. Box 3726                                         |  | Mailing Address:        |  |
| City, State, Zip: Farmington, NM 87499                         |  | City, State, Zip:       |  |
| Sampling Location: MARCUS A-4 Rincón No. 21, MARCUS 3-R        |  | Telephone No.: 325-1198 |  |
| McBEE No. 7-C Jicarilla Apache Fm. #1, Jicarilla Apache Fm. #2 |  | Telefax No.:            |  |
| J. Apache Fm. #1, J. Apache Fm. #2, J. Apache Fm. #3           |  | ANALYSIS REQUESTED      |  |
| J. Apache Fm. #1, J. Apache Fm. #2                             |  | RESULTS TO              |  |
| Sample: James Kirby                                            |  | Number of Containers    |  |
| SAMPLE IDENTIFICATION                                          |  | LAB ID                  |  |
| NAME                                                           |  | LAB ID                  |  |
| 100 Land Farm                                                  |  | LAB ID                  |  |
| 101 Land Farm                                                  |  | LAB ID                  |  |
| 102 Land Farm                                                  |  | LAB ID                  |  |
| 103 Land Farm                                                  |  | LAB ID                  |  |
| 104 Land Farm                                                  |  | LAB ID                  |  |
| 105 Land Farm                                                  |  | LAB ID                  |  |
| 105- Land Farm                                                 |  | LAB ID                  |  |
| 106 Land Farm                                                  |  | LAB ID                  |  |
| 107 Land Farm                                                  |  | LAB ID                  |  |
| 108 Land Farm                                                  |  | LAB ID                  |  |
| 109 Land Farm                                                  |  | LAB ID                  |  |
| 110 Land Farm                                                  |  | LAB ID                  |  |
| Relinquished by:                                               |  | Date/Time               |  |
| Relinquished by:                                               |  | Date/Time               |  |
| Relinquished by:                                               |  | Date/Time               |  |
| Method of Shipment:                                            |  | Date/Time               |  |
| Authorized by:                                                 |  | Date/Time               |  |
| (Client Signature Multi Accompany Request)                     |  | Date/Time               |  |
| Date: 5/1/98                                                   |  | Date/Time               |  |