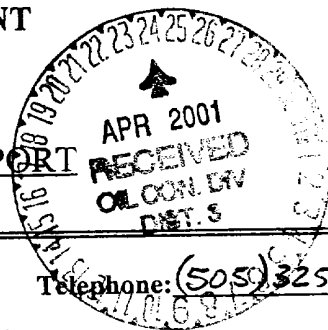


OK  
01/03/02

U.S. BUREAU OF LAND MANAGEMENT  
NAVAJO NATION LANDS

PIT REMEDIATION AND CLOSURE REPORT



Operator: DUGAN PRODUCTION CORP. Telephone: (505) 325-1821  
Address: P.O. Box 420, FARMINGTON, NM 87499  
Facility or Well Name: LUCKY BILLY CHARLIE #2 (P.X.A. WELL)  
Location: Unit or Qtr/Qtr Sec M Sec 22 T 27N R 13W County SAN JUAN  
Pit Type: Separator ☒ Dehydrator ☐ Other ☐  
Land Type: NAVAJO - RANGE

Pit Location: Pit dimensions: length 12', width 12', depth 13'  
(Attach diagram)  
Reference: wellhead ☒ other ☐  
Footage from reference: 72'  
Direction from reference: 31° Degrees ☒ East North ☒  
West South

**Depth To Groundwater:**

(Vertical distance from  
contaminants to seasonal  
high water elevation of  
groundwater)

Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 points) 0

**Distance to an Ephemeral Stream**

(Down gradient dry wash greater than  
ten feet in width)

Less than 100 feet (10 points)  
Greater than 100 feet (0 points) 0

**Distance to Nearest Lake, Playa, or Watering Pond**

(Down gradient lakes, playas and  
livestock or wildlife watering ponds)

Less than 100 feet (10 points)  
Greater than 100 feet (0 points) 0

**Wellhead Protection Area:**

(Less than 200 feet from a private  
domestic water source, or: less than  
1000 feet from all other water sources)

Yes (20 points)  
No (0 points) 0

**Distance To Surface water:**

(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 100 feet (20 points)  
100 feet to 1000 feet (10 points)  
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 2/28/01 Date Completed: 2/28/01

Remediation Method: Excavation ☒ Approx. cubic yards 48  
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

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

General Description of Remedial Action: PIT EXCAVATED UNTIL CLEAN SIDEWALLS  
+ BOTTOM. SOILS LANDFARMED ON SITE

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

Final Pit: Sample location NORTH SIDEWALL @ 13' BELOW GRADE  
Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 13'

Sample date 2/28/01 Sample time 1145

#### Sample Results

|                      |               |                      |           |
|----------------------|---------------|----------------------|-----------|
| Soil: Benzene (ppm)  | <u>0.002</u>  | Water: Benzene (ppb) | <u>NA</u> |
| Total BTEX (ppm)     | <u>0.0406</u> | Toluene (ppb)        | <u>NA</u> |
| Field Headspace(ppm) | <u>28.2</u>   | Ethylbenzene (ppb)   | <u>NA</u> |
| TPH (ppm)            | <u>4.0</u>    | Total Xylenes (ppb)  | <u>NA</u> |

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 APRIL 23, 2001 PRINTED NAME JEFFREY C. BLAGG

SIGNATURE Jeffrey C. Blagg AND TITLE P.E. # 11607, AGENT

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, APPROVAL IS GRANTED IN ACCORDANCE TO THE U.S. BUREAU OF LAND MANAGEMENT'S PIT CLOSURE GUIDELINES.

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

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

TERRY R. : 320-4565

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

## FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 2

|                                                                                                                |                                                               |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| LOCATION: NAME: <u>LUCKY BILLY CHARLIE WELL # 2</u> PIT: <u>SEP</u>                                            | DATE STARTED: <u>2-23-01</u><br>DATE FINISHED: <u>2-23-01</u> |
| QUAD/UNIT: <u>M</u> SEC: <u>22</u> TWP: <u>27N</u> RNG: <u>13W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u> | ENVIRONMENTAL SPECIALIST: <u>ICB</u>                          |
| CTR/FOOTAGE: <u>890 FSL x 890 FWL</u> CONTRACTOR: _____                                                        |                                                               |

|                                                                                                           |
|-----------------------------------------------------------------------------------------------------------|
| <del>PIT</del> EXCAVATION APPROX. <u>12</u> FT. x <u>12</u> FT. x <u>4</u> FT. DEEP. CUBIC YARDAGE: _____ |
| DISPOSAL FACILITY: _____ REMEDIATION METHOD: _____                                                        |
| LAND USE: <u>RANGE</u> LEASE: <u>N00-C-14-20-7467</u> FORMATION: <u>GAL</u>                               |

|                                      |                                                                              |
|--------------------------------------|------------------------------------------------------------------------------|
| FIELD NOTES & REMARKS:               | PIT LOCATED APPROXIMATELY <u>72</u> FT. <u>N31°E</u> FROM WELLHEAD.          |
| DEPTH TO GROUNDWATER: <u>&gt;100</u> | NEAREST WATER SOURCE: <u>&gt;1000</u> NEAREST SURFACE WATER: <u>&gt;1000</u> |

NMCD RANKING SCORE: 0 NMCD TPH CLOSURE STD: 5000 PPM

## SOIL AND EXCAVATION DESCRIPTION:

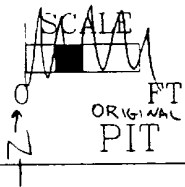
ORIGINAL PIT comprised of silty blow sand w/ water (FROM RECENT PRECIPITATION) sitting in bottom. could not sample w/ hand tools due to water. called for BACKHOE TO COMPLETE ASSESSMENT.

## CHECK ONE:

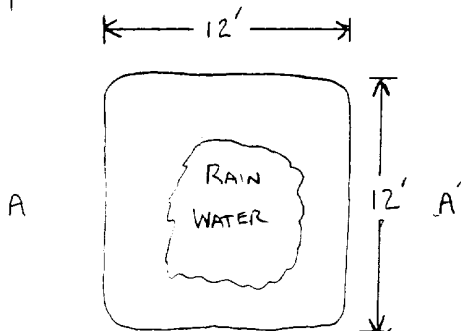
- ☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

## FIELD 418.1 CALCULATIONS

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



## PIT PERIMETER



TO  
PxA  
MARKER

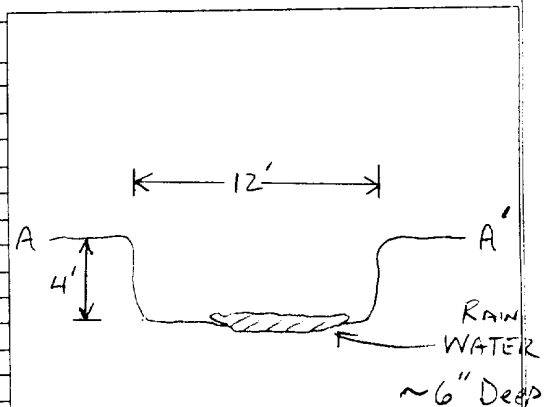
## OVM RESULTS

| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1         |                           |
| 2         |                           |
| 3         |                           |
| 4         |                           |
| 5         |                           |
|           |                           |
|           |                           |
|           |                           |
|           |                           |
|           |                           |
|           |                           |

## LAB SAMPLES

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

## ORIGINAL PIT PROFILE

TRAVEL NOTES: CALLOUT: 2/23/01 ~ 9:00 AM ONSITE: 2/23/01 ~ 1:00 PM

CLIENT: DPC

BLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199

LOCATION NO: \_\_\_\_\_  
C.O.C. NO: \_\_\_\_\_

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 2 of 2

LOCATION: NAME: LUCKY BILLY CHARLIE WELL # 2 PIT: SEP  
QUAD/UNIT: M SEC: 22 TWP: 27N RNG: 13W PM: NM CNTY: SJ ST: NM  
QTR/FOOTAGE: 890 FSL x 890 FWL CONTRACTOR: \_\_\_\_\_

DATE STARTED: 2-28-01  
DATE FINISHED: 2-28-01  
ENVIRONMENTAL SPECIALIST: JCB

EXCAVATION APPROX. 12 FT. x 12 FT. x 13 FT. DEEP. CUBIC YARDAGE: 48  
DISPOSAL FACILITY: ONSITE REMEDIATION METHOD: LANDFARM  
LAND USE: RANGE LEASE: N00-C-14-20-7467 FORMATION: GAL

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 72 FT. N31°E FROM WELLHEAD.  
DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000  
NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM  
SOIL AND EXCAVATION DESCRIPTION:  
PIT EXCAVATED W/BACKHOE FOR ASSESSMENT. EXCAVATED TO TOTAL DEPTH OF 13'  
0'-8' ORANGE YELLOW SILT, DRY to minor moist, Hydrocarbon odor & stain.  
8'-13' BLUE Silty clay, litely plastic, minor moisture, Minor Hydrocarbon odor.  
@13' Yellow brown silty clay, litely plastic, slight moisture, no Hydrocarbon odor.  
USED BACKHOE to sample pit bottom & sidewalls.

CHECK ONE:  
☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

FIELD 418.1 CALCULATIONS

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

SCALE

0 FT

PIT PERIMETER

OVM RESULTS

| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1N@13'    | 28.2                      |
| 2E@13'    | 24.4                      |
| 3S@13'    | 5.2                       |
| 4W@12'    | 3.4                       |
| 5C@13'    | 22.1                      |

LAB SAMPLES

| SAMPLE ID | ANALYSIS | TIME |
|-----------|----------|------|
| N@13'     | TPH/GTEX | 1145 |

PIT PROFILE

TRAVEL NOTES:

CALLOUT: 2/26/01 @ 8:00AM ONSITE: 2-28-01 @ 8:00AM

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

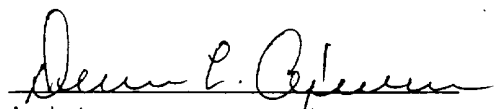
|                      |                   |                     |           |
|----------------------|-------------------|---------------------|-----------|
| Client:              | Blagg / Dugan     | Project #:          | 94034-010 |
| Sample ID:           | Separator N @ 13' | Date Reported:      | 03-01-01  |
| Laboratory Number:   | 19327             | Date Sampled:       | 02-28-01  |
| Chain of Custody No: | 8535              | Date Received:      | 02-28-01  |
| Sample Matrix:       | Soil              | Date Extracted:     | 03-01-01  |
| Preservative:        | Cool              | Date Analyzed:      | 03-01-01  |
| Condition:           | Cool and Intact   | Analysis Requested: | 8015 TPH  |

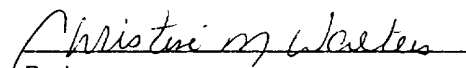
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | 1.5                      | 0.2                      |
| Diesel Range (C10 - C28)     | 2.5                      | 0.1                      |
| Total Petroleum Hydrocarbons | 4.0                      | 0.1                      |

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: Lucky Billy Charlie #2.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

|                    |                   |                     |           |
|--------------------|-------------------|---------------------|-----------|
| Client:            | Blagg / Dugan     | Project #:          | 04034-010 |
| Sample ID:         | Separator N @ 13' | Date Reported:      | 03-01-01  |
| Laboratory Number: | 19327             | Date Sampled:       | 02-28-01  |
| Chain of Custody:  | 8535              | Date Received:      | 02-28-01  |
| Sample Matrix:     | Soil              | Date Analyzed:      | 03-01-01  |
| Preservative:      | Cool              | Date Extracted:     | 03-01-01  |
| Condition:         | Cool & Intact     | Analysis Requested: | BTEX      |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene      | 2.0                      | 1.8                      |
| Toluene      | 11.0                     | 1.7                      |
| Ethylbenzene | 10.0                     | 1.5                      |
| p,m-Xylene   | 6.9                      | 2.2                      |
| o-Xylene     | 10.7                     | 1.0                      |
| Total BTEX   | 40.6                     |                          |

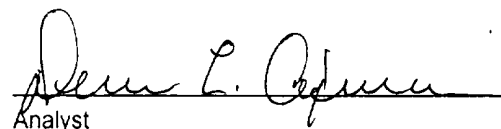
ND - Parameter not detected at the stated detection limit.

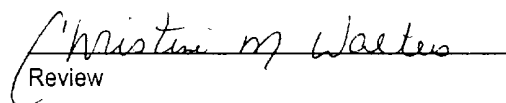
| Surrogate Recoveries: | Parameter          | Percent Recovery |
|-----------------------|--------------------|------------------|
|                       | Trifluorotoluene   | 100 %            |
|                       | Bromofluorobenzene | 100 %            |

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Lucky Billy Charlie #2.

  
Analyst

  
Review

08535

[illegible]

|                    |                                                                                       |                                                  |
|--------------------|---------------------------------------------------------------------------------------|--------------------------------------------------|
| CLIENT: <u>DPC</u> | <b>BLAGG ENGINEERING, INC.</b><br>P.O. BOX 87, BLOOMFIELD, NM 87413<br>(505) 632-1199 | LOCATION NO: _____<br><br>C.D.C. NO: <u>9214</u> |
|--------------------|---------------------------------------------------------------------------------------|--------------------------------------------------|

**FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION**

|                                                                                                                                                                                                                                                           |                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| LOCATION: NAME: <u>LUCKY BILLY CHARLIE WELL #:</u> <u>2</u> PITS: <u>SEP</u><br>QUAD/UNIT: <u>M</u> SEC: <u>22</u> TWP: <u>27N</u> RNG: <u>13W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u><br>QTR/FOOTAGE: <u>890 FSL x 890 FUL</u> CONTRACTOR: _____ | DATE STARTED: <u>2-28-01</u><br>DATE FINISHED: <u>4-17-01</u><br>ENVIRONMENTAL SPECIALIST: <u>JCB</u> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|

**SOIL REMEDIATION:**

|                                     |                                  |
|-------------------------------------|----------------------------------|
| REMEDIATION SYSTEM: <u>LANDFARM</u> | APPROX. CUBIC YARDAGE: <u>48</u> |
| LAND USE: <u>RANGE</u>              | LIFT DEPTH (ft): <u>1 Foot</u>   |

**FIELD NOTES & REMARKS:**

DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000

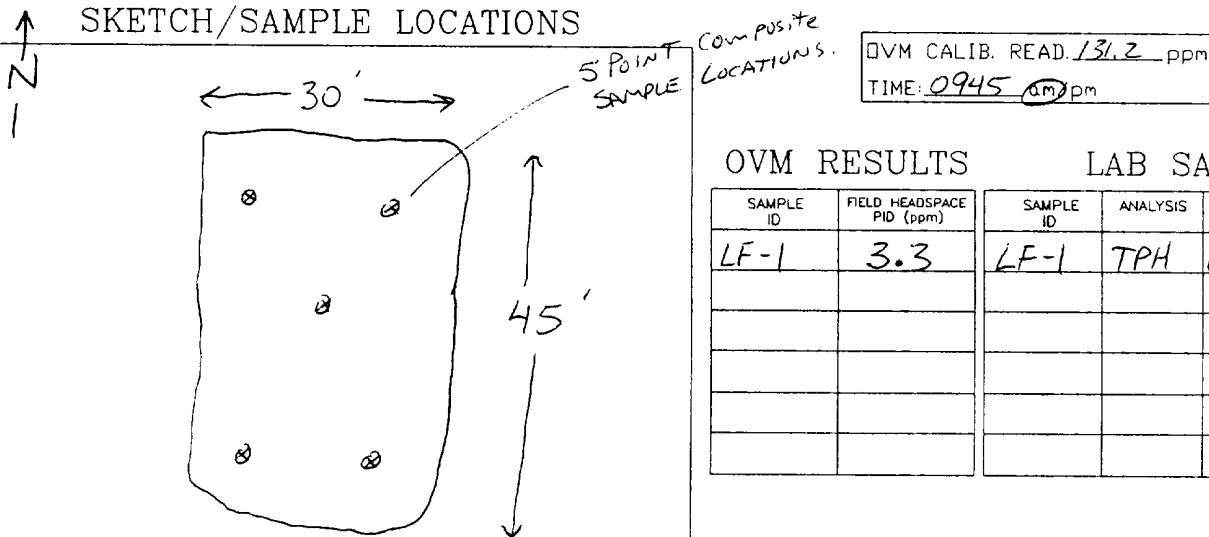
NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

LANDFARM LOCATED ON LOCATION. OBTAINED 5 POINT COMPOSITE FROM 6" DEPTH FOR FIELD OVM ANALYSIS & LAB TPH TESTING

**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      | 3.3                       | LF-1      | TPH      | 0937 |         |
|           |                           |           |          |      |         |
|           |                           |           |          |      |         |
|           |                           |           |          |      |         |
|           |                           |           |          |      |         |
|           |                           |           |          |      |         |

**SCALE**



|                              |                                    |
|------------------------------|------------------------------------|
| TRAVEL NOTES: CALLOUT: _____ | ONSITE: <u>0930</u> <u>4/17/01</u> |
|------------------------------|------------------------------------|

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

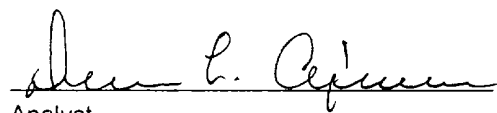
|                      |                 |                     |           |
|----------------------|-----------------|---------------------|-----------|
| Client:              | Blagg / Dugan   | Project #:          | 94034-010 |
| Sample ID:           | LF - 1          | Date Reported:      | 04-18-01  |
| Laboratory Number:   | 19557           | Date Sampled:       | 04-17-01  |
| Chain of Custody No: | 9214            | Date Received:      | 04-17-01  |
| Sample Matrix:       | Soil            | Date Extracted:     | 04-18-01  |
| Preservative:        | Cool            | Date Analyzed:      | 04-18-01  |
| Condition:           | Cool and Intact | Analysis Requested: | 8015 TPH  |

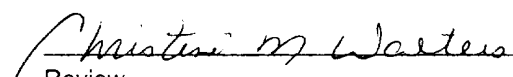
| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | ND                       | 0.2                      |
| Diesel Range (C10 - C28)     | 0.6                      | 0.1                      |
| Total Petroleum Hydrocarbons | 0.6                      | 0.1                      |

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: Lucky Billy Charlie #2.

  
Analyst

  
Review

09214

[illegible]