

LFW11
Risk-bencher

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

Submit Copy to
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

DIST. 2

APPROVED

Operator: ELM RIDGE RESOURCES Telephone: 326-7099

Address: 312 W. LA PLATA STREET, FARMINGTON, NM 87401

Facility or Well Name: MARTIN WHITTAKER #50

Location: Unit or Qtr/Qtr Sec 14 T 23N R 4W County Rio ARIZONA

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: _____

Pit Location:
(Attach diagram)

Pit dimensions: length 32', width 26', depth 7'

Reference: wellhead _____, other _____

Footage from reference: _____

Direction from reference: _____ 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) <u>0</u>

Distance to an Ephemeral Stream

(Downgradient dry wash greater than
ten feet in width)

Less than 100 feet	(10 points)
Greater than 100 feet	(0 points) <u>0</u>

Distance to Nearest Lake, Playa, or Watering Pond

(Downgradient lakes, playas and
livestock or wildlife watering ponds)

Less than 100 feet	(10 points)
Greater than 100 feet	(0 points) <u>0</u>

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) <u>0</u>

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) <u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 9/22/98

Date Completed: 9/22/98

Remediation Method: Excavation ☒
(Check all appropriate sections)

Approx. cubic yards 216 CY

Landfarmed ☒

In situ Bioremediation _____

Other _____

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

General Description of Remedial Action: REMOVED CONTAMINATED SOIL USING AN
EXCAVATOR, SPREAD SOIL ON LOCATION IN SOIL FARM

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location Pit Bottom • CENTER

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

4 BANKS N,S,E,W

Bedrock at 7'

GAS ND PPM

Sample depth 7'

DIE ND PPM

Sample date 9/22/98

Sample time 12:40PM

METHOD: 8015M

PID = 2.2 PPM

Sample Results

Soil Benzene (ppm) N/A

Water: Benzene (ppb) N/A

Total BTEX (ppm) N/A

Toluene (ppb) N/A

Field Headspace (ppm) 1156.2

Ethylbenzene (ppb) N/A

TPH 8015M (ppm) GAS 850 PPM
DIE 4600 PPM

Total Xylenes (ppb) N/A

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 12/9/98 PRINTED NAME SHAWN ADAMS

SIGNATURE [Signature] 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 ☒ NO _____ (REASON) R.A. Attached

SIGNED: [Signature] DATE: 12-10-98

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 02-Oct-98

Client:	Contract Environmental Services, Inc.	Client Sample Info:	Martin Whittaker #50
Work Order:	9809061	Client Sample ID:	MW50-200 Pit Floor
Lab ID:	9809061-07A	Matrix:	SOIL
Project:	Martin Whittaker	Collection Date:	9/22/98 12:35:00 PM
		COC Record:	5216

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	4600	25		mg/Kg	1	Analyst: HR 10/1/98
GASOLINE RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C6-C10	850	0.18		mg/Kg	250	Analyst: HR 9/28/98

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 -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 02-Oct-98

Client:	Contract Environmental Services, Inc.	Client Sample Info:	Martin Whittaker #50
Work Order:	9809061	Client Sample ID:	MW50-201 4 Wall Comp
Lab ID:	9809061-08A	Matrix:	SOIL
Project:	Martin Whittaker	Collection Date:	9/22/98 12:40:00 PM
		COC Record:	5216

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	Analyst: HR 10/1/98
GASOLINE RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C6-C10	ND	0.36		mg/Kg	2	Analyst: HR 9/26/98

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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

CONTRACT ENVIRONMENTAL

Daily Site Sheet

Client Name: Elm Ridge

Site Name: Martin Whittaker #50

NW 1/4, NE 1/4, SEC. 14, T 23 N, R 5 W.

Date: 9/22/98

Time Started: _____

Time Finished: _____

Pit starting size: _____

Pit size when finished: 32 x 26 x 7

Land farm size: _____

Distance to wash > or < 100': _____

Distance to lake or pond: _____

Distance to private or domestic water source > or < 1000': _____

P.I.D. Readings

North wall: 1.2

South wall: 1.3

East wall: 2.1

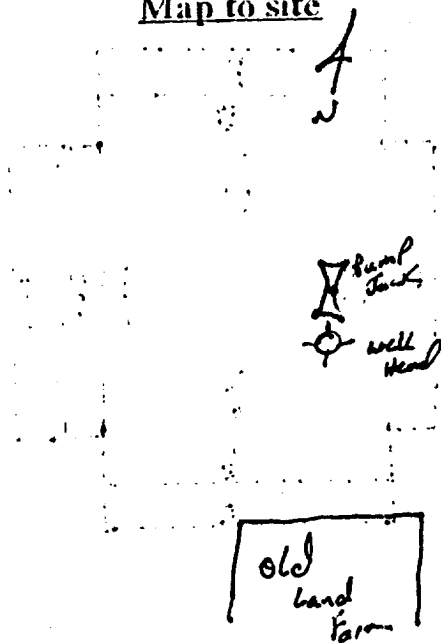
West wall: 2.2

Land farm: _____

Equipment used: Excavator, loader, line locator, pit James Kirby Linn Wilson

Remarks: Equipment on North, East and West Sides.
2 samples to lab MUSE-200 Pit Floor 1156.2 PPM,
MUSE-201 4 wall comp 2.2 PPM
Rock Floor at 7'

Map to site



Site Diagram on back side

Sample No.

MW50-200

MW50-201

Description

Pit Floor

4 wall comp

PID (PPM)

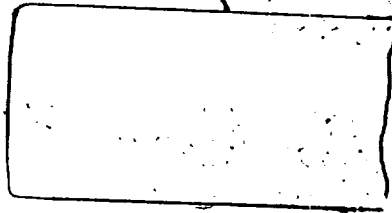
1156.2

2.2

Site Diagram

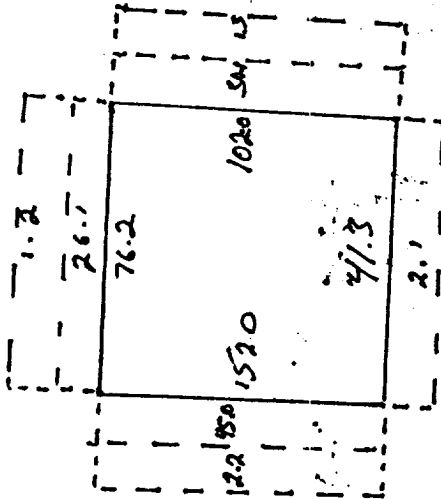
Site Name: Martin Wh. Taker #50

A



5' 1002.0 PPM

7' Rock



CHAIN OF CUSTODY RECORD

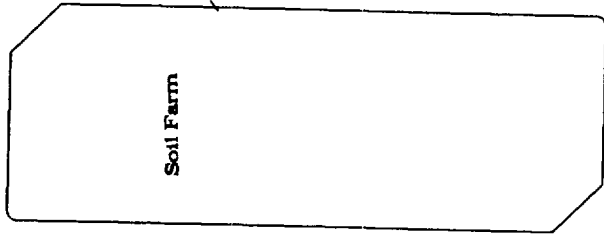
Date: 9/21/95

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

ON SITE

TECHNOLOGIES, LTD.

Purchase Order No.:		Job No.	
Name		Title	
Company		Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
Telephone No.		Telefax No.	
Sampling Location:		ANALYSIS REQUESTED	
M.L.D. #0, M.W. 22, NW 51			
M.L.D. #10, M.W. 22, NW 51			
M.L.D. #20, M.W. 22, NW 51			
M.L.D. #30, M.W. 22, NW 51			
M.L.D. #40, M.W. 22, NW 51			
M.L.D. #50, M.W. 22, NW 51			
M.L.D. #60, M.W. 22, NW 51			
M.L.D. #70, M.W. 22, NW 51			
M.L.D. #80, M.W. 22, NW 51			
M.L.D. #90, M.W. 22, NW 51			
M.L.D. #100, M.W. 22, NW 51			
M.L.D. #110, M.W. 22, NW 51			
M.L.D. #120, M.W. 22, NW 51			
M.L.D. #130, M.W. 22, NW 51			
M.L.D. #140, M.W. 22, NW 51			
M.L.D. #150, M.W. 22, NW 51			
M.L.D. #160, M.W. 22, NW 51			
M.L.D. #170, M.W. 22, NW 51			
M.L.D. #180, M.W. 22, NW 51			
M.L.D. #190, M.W. 22, NW 51			
M.L.D. #200, M.W. 22, NW 51			
M.L.D. #210, M.W. 22, NW 51			
M.L.D. #220, M.W. 22, NW 51			
M.L.D. #230, M.W. 22, NW 51			
M.L.D. #240, M.W. 22, NW 51			
M.L.D. #250, M.W. 22, NW 51			
M.L.D. #260, M.W. 22, NW 51			
M.L.D. #270, M.W. 22, NW 51			
M.L.D. #280, M.W. 22, NW 51			
M.L.D. #290, M.W. 22, NW 51			
M.L.D. #300, M.W. 22, NW 51			
M.L.D. #310, M.W. 22, NW 51			
M.L.D. #320, M.W. 22, NW 51			
M.L.D. #330, M.W. 22, NW 51			
M.L.D. #340, M.W. 22, NW 51			
M.L.D. #350, M.W. 22, NW 51			
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M.L.D. #460, M.W. 22, NW 51			
M.L.D. #470, M.W. 22, NW 51			
M.L.D. #480, M.W. 22, NW 51			
M.L.D. #490, M.W. 22, NW 51			
M.L.D. #500, M.W. 22, NW 51			
M.L.D. #510, M.W. 22, NW 51			
M.L.D. #520, M.W. 22, NW 51			
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M.L.D. #660, M.W. 22, NW 51			
M.L.D. #670, M.W. 22, NW 51			
M.L.D. #680, M.W. 22, NW 51			
M.L.D. #690, M.W. 22, NW 51			
M.L.D. #700, M.W. 22, NW 51			
M.L.D. #710, M.W. 22, NW 51			
M.L.D. #720, M.W. 22, NW 51			
M.L.D. #730, M.W. 22, NW 51			
M.L.D. #740, M.W. 22, NW 51			
M.L.D. #750, M.W. 22, NW 51			
M.L.D. #760, M.W. 22, NW 51			
M.L.D. #770, M.W. 22, NW 51			
M.L.D. #780, M.W. 22, NW 51			
M.L.D. #790, M.W. 22, NW 51			
M.L.D. #800, M.W. 22, NW 51			
M.L.D. #810, M.W. 22, NW 51			
M.L.D. #820, M.W. 22, NW 51			
M.L.D. #830, M.W. 22, NW 51			
M.L.D. #840, M.W. 22, NW 51			
M.L.D. #850, M.W. 22, NW 51			
M.L.D. #860, M.W. 22, NW 51			
M.L.D. #870, M.W. 22, NW 51			
M.L.D. #880, M.W. 22, NW 51			
M.L.D. #890, M.W. 22, NW 51			
M.L.D. #900, M.W. 22, NW 51			
M.L.D. #910, M.W. 22, NW 51			
M.L.D. #920, M.W. 22, NW 51			
M.L.D. #930, M.W. 22, NW 51			
M.L.D. #940, M.W. 22, NW 51			
M.L.D. #950, M.W. 22, NW 51			
M.L.D. #960, M.W. 22, NW 51			
M.L.D. #970, M.W. 22, NW 51			
M.L.D. #980, M.W. 22, NW 51			
M.L.D. #990, M.W. 22, NW 51			



LEGEND:

—	OIL
—	WATER
—	GAS
—	Oil/Water
—	Gas/Oil/Water

NOTE: CONNECTING PIPING INSTRUCTIONS ARE APPROXIMATE FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LINES MUST BE LOCATED ON-SITE BY A QUALIFIED TECHNICIAN.

Field Data Recorded : _____ Date: _____
 Reviewed : _____ Date: _____
 Drawn : _____ Date: _____

Elm Ridge Resources
Martin Whittaker 50
 NW/SE Sec. 14, T23N, R5W
 Rio Arriba County, NM

Contract Environmental Services, Inc.
 505-325-1198
 Farmington, New Mexico

Elm Ridge Resources

Risk Analysis

Prepared by:

Contract Environmental Services, Inc.

Prepared for:

Oil Conservation Division - District III

Jicarilla Apache Tribe - EPO

Date: 12/9/98

Location: Martin Whittaker # 50 Separator Pit

NW / NE, Sec 14, T23N, R4W

Lease Number:

Resources

Ground Water: 100 feet +

Closest Surface Water: No down gradient perennial bodies within 1000 feet (visual inspection of the area)

Water Sources: No private water source is located within 1000 feet of this site.

Risk Management

Natural Barriers: Natural soil permeability is one natural barrier that will protect ground water from site contamination.

Additional Investigation: This earthen pit had bedrock at 7' of depth. Field-testing and laboratory analysis was done on this earthen pit. The results of this analysis and testing are shown in the following pages. All data is supported with lab result sheets and field data sheets found in this closure package.

Additional
Investigation: (continued)

Table 1. Field and laboratory results summary.

	Sample			
	Depth	Field Headspace Results	Laboratory Results	Remarks
	(feet)	(PPM)	(PPM)	
MW50- 200	7'	1156.2	Gas = 850 Die = 4600	Pit Bottom
MW50- 201	7'	2.2	Gas = ND Die = ND	4 Banks NSEW

Risk

The following table and conclusion summarize the risk this contamination sources poses to the ground water.

Table 2. Total risk table.

RISK	CHOICE
Extremely Low	X
Low	
Moderate	
High	

Risk Analysis

Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, New Mexico 87499

The ground water under this site is at almost no danger of being impacted by contamination from this site. From the low laboratory and field-test results and the restrictive geologic soil barriers it is concluded that the risk of resource contamination is extremely low.

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

ADMIT COPY TO
NATL ENV. MONIT. & REPT. DEPT.
WATER & SOIL ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: Elm Ridge Resources Telephone: (505) 326-7099

Address: 312 W La Plata, Farmington NM 87401

Facility or Well Name: Martin Whittaker #50

Location: Unit or Qtr/Sec NW/NE Sec 14 T 23N R 4W County Rio Arriba

Land Type: Jicarilla Range

Date Remediation Started: 9-22-98 Date Completed: 8-25-99

Remediation Method: Landfarmed X Approx. cubic yards 208

Composted —

Other —

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

Final Closure Sampling:

Sampling Date: 8-25 Time: 1417

Sample Results:

Field Headspace (ppm) 29.3

TPH (ppm) GRND Method 8015
DRO 270

Other —

RANKING SCORE (TOTAL POINTS): 0

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

DATE 9-23-99 PRINTED NAME Bill Schaaphok

SIGNATURE Bill Schaaphok AND TITLE Environmental Specialist

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

APPROVED: YES — NO — (REASON) —

SIGNED: — DATE: —

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 16-Sep-99

Client:	Elm Ridge Resources, Inc.	Client Sample Info:	Elm Ridge Landfarms
Work Order:	9908055	Client Sample ID:	MW#50 Landfarm 1-2
Lab ID:	9908055-04A	Matrix:	SOIL
Project:	Elm Ridge Landfarms	Collection Date:	08/25/1999 2:17:00 PM
		COC Record:	10252

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	270	25		mg/Kg	1	09/01/1999
GASOLINE RANGE ORGANICS		SW8015B				Analyst: DM
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	08/26/1999

Qualifiers:

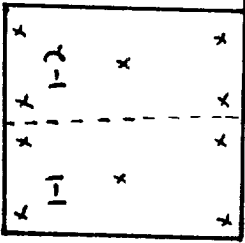
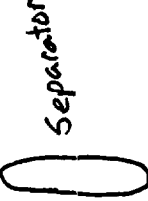
- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank

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

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Location : <u>Martin Whittaker # 50</u> Quad : <u>NW/NE</u> Section : <u>14</u> Township : <u>23N</u> Range : <u>4W</u> Pit : <u>Separator</u> Reference : <u>90' N 10 W</u> Size : <u>75' x 75' x 1'</u> Yds : <u>208</u> <u>2-5</u> - Point Composite		Overview of Landfarm and Sampling :  N ↖ ↗ Gradient    Comments : <u>Brown, sandy loam, no odor, some staining on southwest corner</u> <u>sample taken at 8" to 12"</u> Environmental Specialist :	
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