

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NMOCDD Original

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCDD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>Resource Development Technology LLC</u> Telephone: <u>(303) 716-3200</u> e-mail address: <u>ras.rdt@mindspring.com</u> Address: <u>P.O. Box 1020, Morrison, CO 80465</u> Facility or well name: <u>Warren 'G' Fed. Com. 26- #2</u> API #: <u>30-039-23080</u> U/L or Qtr/Qtr <u>1800' FNL & 1680' FWL</u> , Unit 'F' of Sec 26 T 25N R 6W County: <u>Rio Arriba</u> Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐		
Pit Type: Drilling ☐ Production ☒ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness _____ mil Clay ☐ Pit Volume <u>160</u> Bbl. (15' x 15' x 4' Deep in 20' x 20' Berm)	Below-grade tank Volume: <u>NA</u> Bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	RCVD SEP 6 '07 OIL CONS. DIV. DIST. 3
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) 0 (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) 10 (0 points)
Ranking Score (Total Points)		10

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

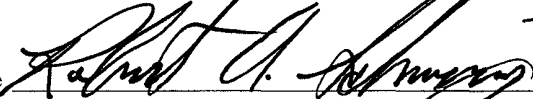
Additional Comments: The original unlined approx. 160 Bbl. earthen production pit (ENE of the wellhead) was remediated by excavating contaminated soil, and land-farming the soil on-site. Approximately 53 cubic yards of soil were excavated from this pit in a 17' x 17' x 8' Deep Excavation.. Side & Bottom Composite Samples met TPH & BTEX Site Remediation Standards on 9/30/2004. Roustabouts mistakenly re-filled the pit w/ excavated material which did not meet the Site Remediation Standards. The pit was then re-excavated to 17' x 17' x 8' Deep & once again the Side & Bottom Samples taken on 12/6/2004 were sent to the laboratory for TPH and BTEX analysis. Both samples again met Site Remediation Standards. The excavation was then back-filled w/ 200# Hi-N2 fertilizer & clean fill mixed with another 100# of Hi-N2 fertilizer. The original excavated soil was fertilized (300# Hi-N2), tilled & sampled repeatedly until the final sample collected on 5/25/2005 met site remediation standards. The remediated sandy soil was used in battery berm construction & to prevent additional erosion on the west side of the location. The site diagram and sample results are attached. All FINAL excavation & sample results met the TPH & BTEX Remediation Standards for this site.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCDD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 8/27/2007

Printed Name/Title: Robert A. Schwering, P.E., Operations Manager

Signature



Your certification and NMOCDD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

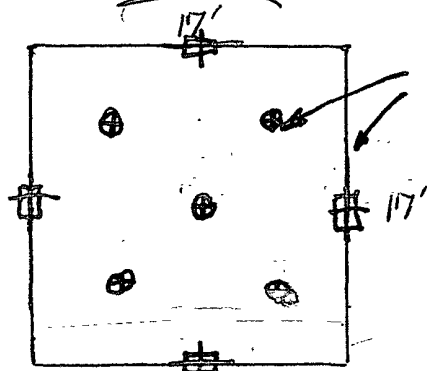
Deputy Oil & Gas Inspector,
District #3

Printed Name/Title

Signature



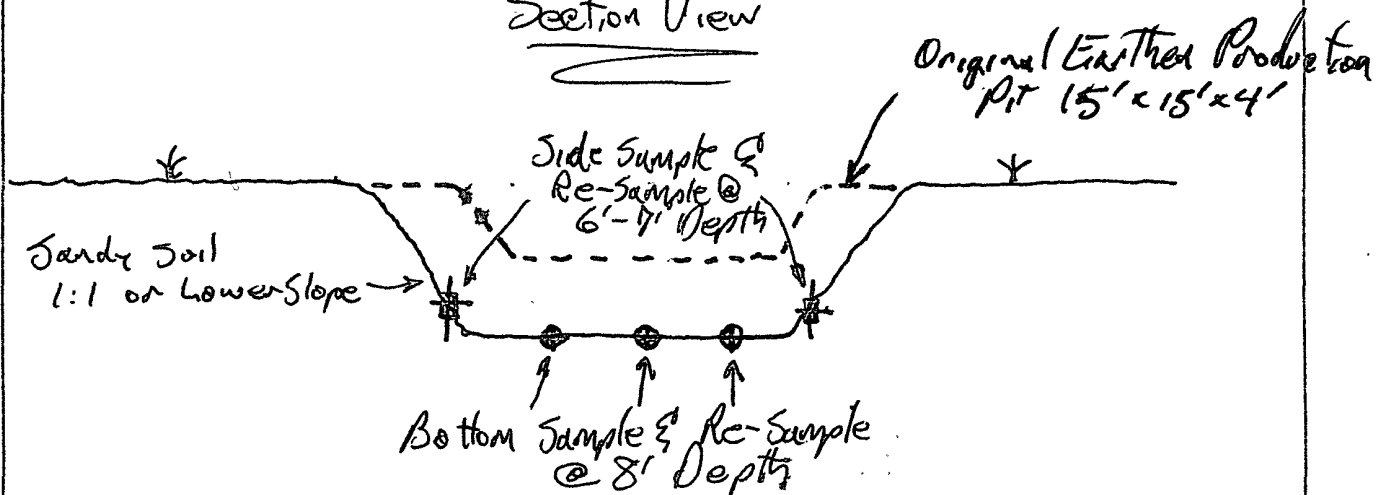
Date: SEP 20 2007

Plan View

2 Samples @ Each Point
See Discussion Below

Scale
1" = 10'

Pit was Excavated and Accidentally Re-Filled w/Excavated Material.
Pit was then Re-Excavated & Re-Tested.

Section View

⊕: Approx. Sampling Points: Bottom Composite Samples: 5-Spot Pattern

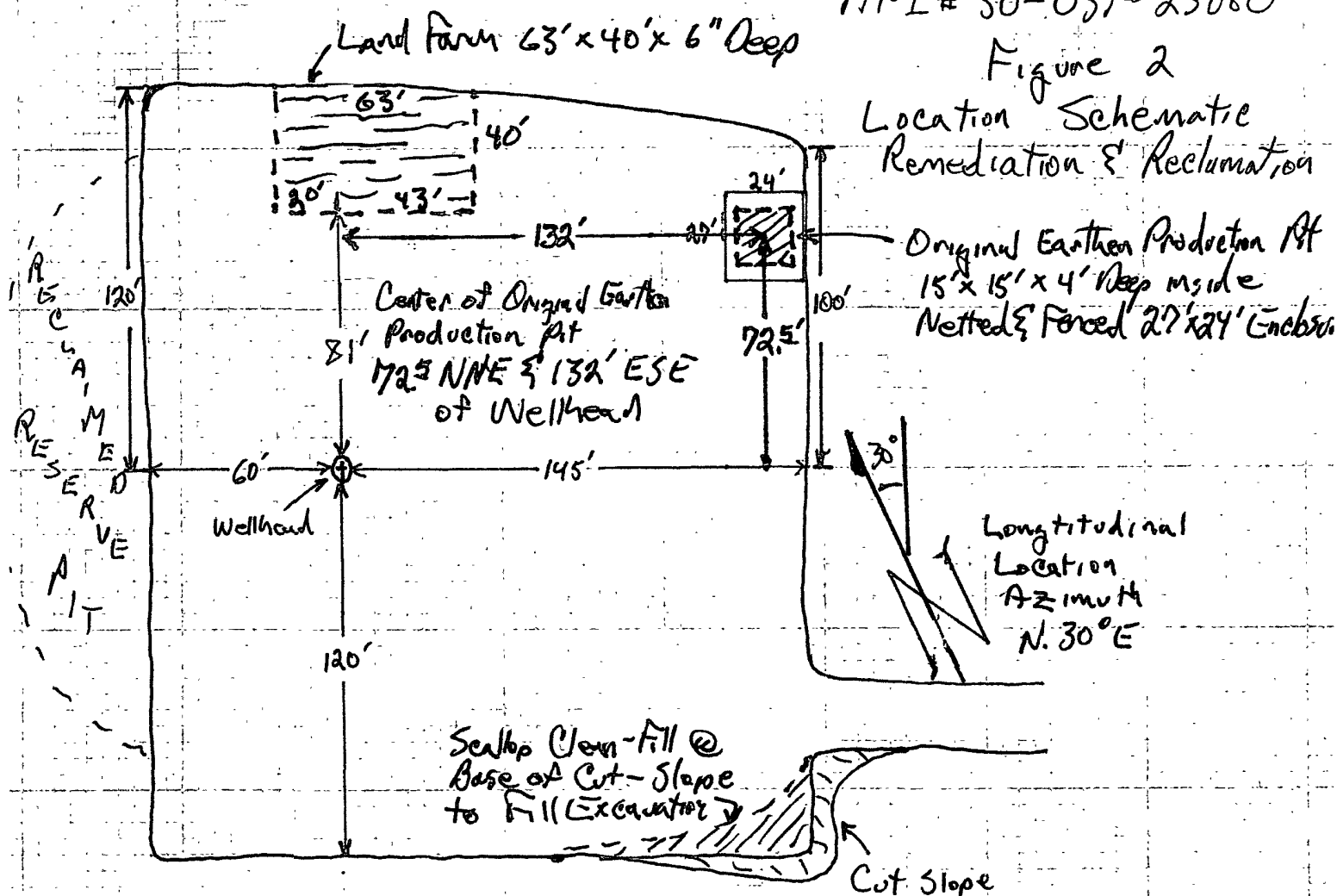
⊞: Approx. Sampling Points: Side Composite Samples: 4-Spot Pattern

Warren G' Fed. Com. 26-#2

API# 30-039-23080

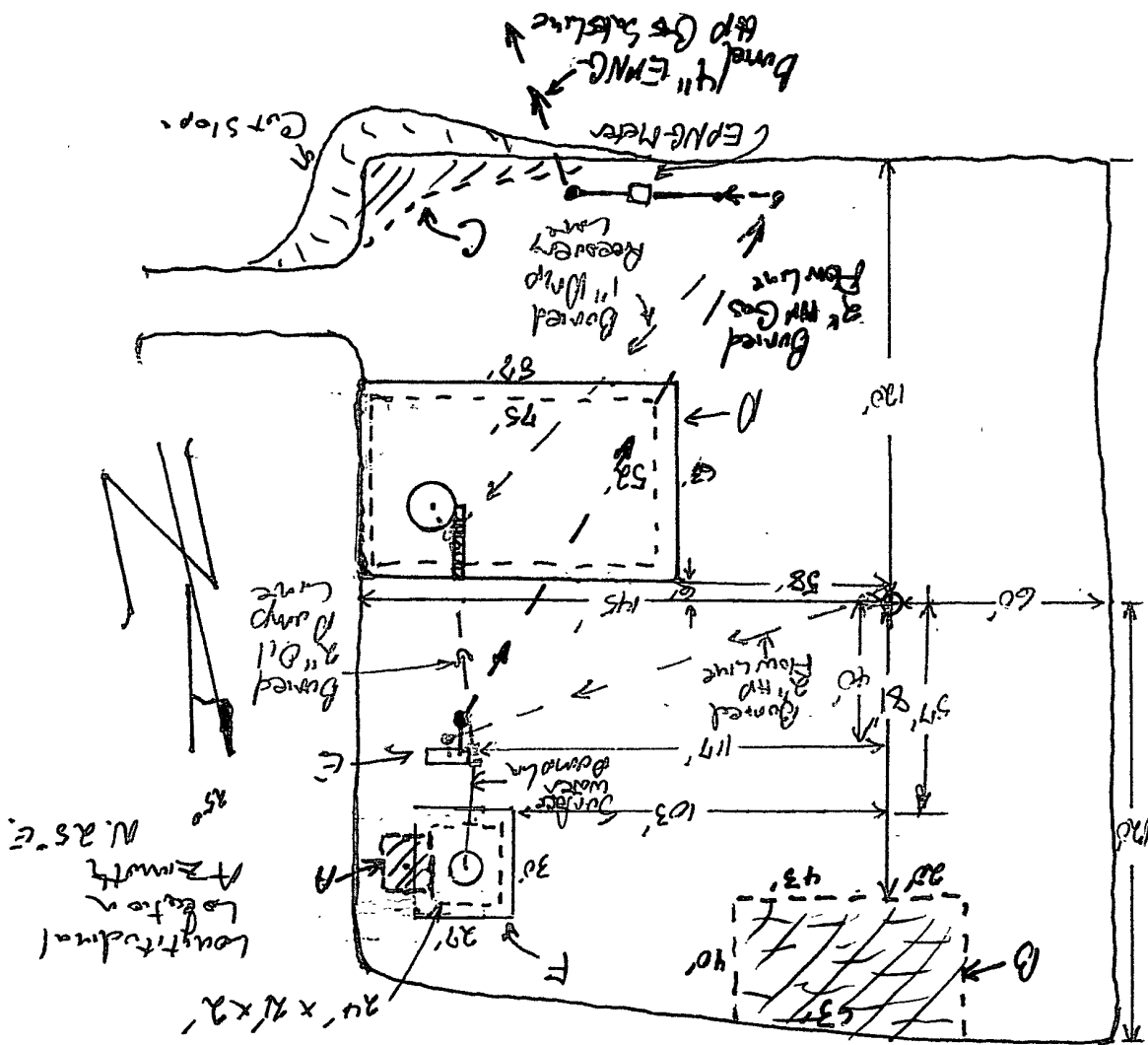
Figure 2

Location Schematic
Remediation & Reclamation

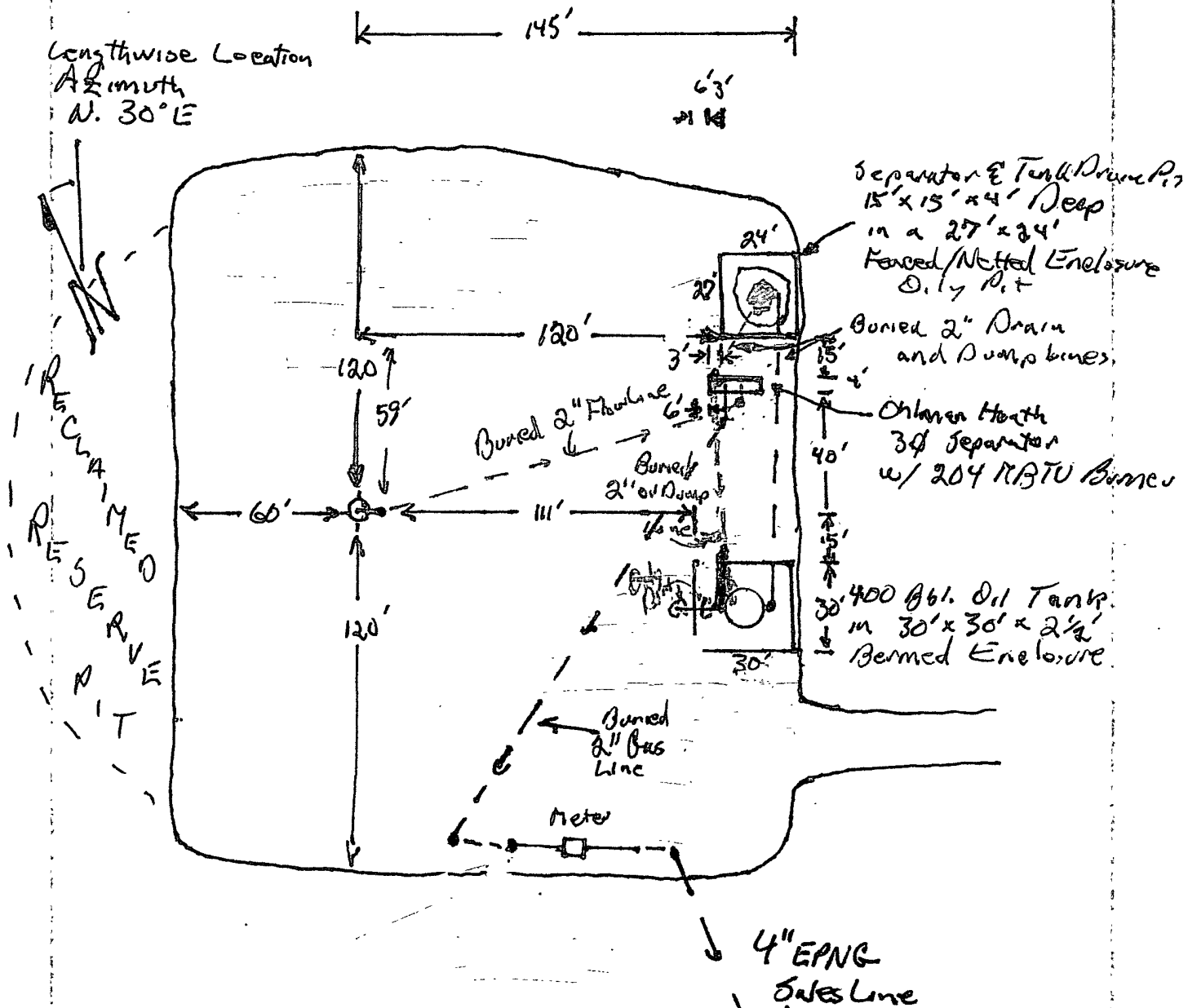


1. Take Down Fence & Excavate 17'x17'x8' Deep to Test. Bottom & Side Samples met Site Remediation TPH & ATEX Standards. Order Closed.
2. Roundabout Crew put 100# Hi-N₂ Fertilizer in Excavated Material & Back-Filled Pit w/ Material that Did Not Meet Site Remediation Standards by Accident. Order Pit Re-Excavated.
3. Re-Excavate 17'x17'x8' Deep & Re-Test Bottom & Side Samples AGAIN. Met Site Remediation TPH & BTEX Standards Again. Order Pit Closed w/ Clean Fill.
4. Back-Fill Pit w/ 200# Hi-N₂ Fertilizer in Bottom & Mixed-In 100# Hi-N₂ Fertilizer w/ Clean Fill Sealed from Cut Slope @ SE Corner of Location.
5. Fertilize Excavated Material w/ 300# - Hi-N₂ Fertilizer & Till & Test Repeatedly until met Site Remediation Standards. Used Material for Battery Berms & Erosion Control.

- A. 17' x 19' x 8' Deep Further Reduction Pit Excavation that had to be excavated twice & met site Remediation Standards Both times Back-filled w/ 200# H-Na Fertilizer's Clearfill scalled by base of Cut Slope (see Remediation)
- B. 63' x 41' x 6" Deep Land Farm Fertilized w/ 300# H-Na Fertilizer & Lilled / Tared until Met Site Remediation Standards. Used for Tank Batching & Erosion Control.
- C. Down Area / Clear-Fill Base of Cut Slope in SE Corner of Location.
- D. Fenced (87' x 63') Fertilized (95' x 52' x 3' Biom) Enclosure containing a 400 STB ASI Oil Tank.
- E. Oilman - Hatch 30' x 23' x 2' Biom (75' x 52' x 2') Enclosure for 45 Bbl Hydrogen Water Tank.
- F. Fenced (30' x 23' x 2' Biom) (75' x 52' x 2') Enclosure for 45 Bbl Hydrogen Water Tank.



Master 'G' Rel. Cam. 26-#2
Figure 3
Current Site Schematic



1. Remediate Separator/Tank Drain Pit
2. Clean-up Oil Pit @ Oil Tank

1. NO SIBN.
2. Why is heater running now?

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 410-003-20

Date Received: 10/01/04

Date Reported: 10/27/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.: WAR 26-2 PIT BOTTOM @ 8'

Sample Date: 09/30/04

Sample Matrix: Soil

Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	
		LIMIT	RESULT			ANALYZED	ANALYST
Benzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
TPHGRO	8015	100	<100	1	µg/kg	10/26/04	LM
TPHDRO	8015	10	<10	1	mg/kg	10/20/04	LM

Passed: TPH @ N.D. < 1,000 PPM Site Standard.

Passed: BTEX @ N.D. < 50 PPB Site Standard.

FOR D. Zupelt
John Green, Laboratory Manager

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 410-003-21

Date Received: 10/01/04

Date Reported: 10/27/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.: WAR 26-2 PIT SIDES @ 6'-7'

Sample Date: 09/30/04

Sample Matrix: Soil

Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	
		LIMIT	RESULT			ANALYZED	ANALYST
Benzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
TPHGRO	8015	100	<100	1	µg/kg	10/26/04	LM
TPHDRO	8015	10	488	1	mg/kg	10/20/04	LM

Passed: TPH @ 488 PPM < 1,000 PPM Site Standard.

Passed: BTEX @ N.D. < 50 PPB Site Standard.

D. Zufelt
For: John Green, Laboratory Manager

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 410-003-22

Date Received: 10/01/04

Date Reported: 10/27/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.: WAR 26-2 PILE

Sample Date: 09/30/04

Sample Matrix: Soil

Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	
		LIMIT	RESULT			ANALYZED	ANALYST
Benzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	10/21/04	LM
TPHGRO	8015	100	21200 21.2	1	µg/kg	10/26/04	LM
TPHDRO	8015	10	3290	1	mg/kg	10/20/04	LM
			3311.2				

Failed: TPH @ 3311.2 PPM > 1,000 PPM Site Standard.

Passed: BTEX @ N.D. < 50 PPB Site Standard.

NOTE: Roughabouts mixed 100# H₂-N₂ Fertilizer
with the Pile & Re-filled the Excavation.

RAD

D. Zufelt
For: John Green, Laboratory Manager

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 412-030-03

Date Received: 12/07/04

Date Reported: 12/20/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.: War 26-2 Pit Bottom @ 8'

Sample Date: 12/06/04

Sample Matrix: Soil

Re-Excavated
Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	
		LIMIT	RESULT			ANALYZED	ANALYST
Benzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
TPHGRO	8015	100	2840 <i>2.84</i>	1	µg/kg	12/17/04	LM
TPHDRO	8015	10	850	1	mg/kg	12/17/04	LM

Passed: TPH @ 852.84 PPM < 1,000 PPM Site Standard.

Passed: BTEX @ N.D. < 50 PPB Site Standard

D. Zufelt
FOR: John Green Laboratory Manager

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 412-030-04

Date Received: 12/07/04

Date Reported: 12/20/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.:

War 26-2 Pit Sides @ 6'-7'
Re-Excavated

Sample Date: 12/06/04

Sample Matrix: Soil

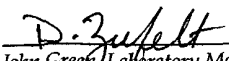
Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	
		LIMIT	RESULT			ANALYZED	ANALYST
Benzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
TPHGRO	8015	100	<100	1	µg/kg	12/17/04	LM
TPHDRO	8015	10	626	1	mg/kg	12/17/04	LM

Passed: TPH @ 626 PPM < 1,000 PPM Site Standard.

Passed: BTEX @ N.D. < 50 PPB Site Standard.


For: John Green Laboratory Manager

Green Analytical Laboratories, Inc.
75 Suttle Street
Durango, CO 81303

Resource Development Technology
PO Box 1020
Morrison, CO 80465
Attention: Bob Schwering

GAL I.D.: 412-030-05

Date Received: 12/07/04

Date Reported: 12/20/04

QC Batches:

PROJECT NAME: RDT Pits

PROJECT NUMBER:

SAMPLE I.D.: War 26-2 Land

Sample Date: 12/06/04

Sample Matrix: Soil

Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT		DIL	UNITS	DATE	ANALYST
		LIMIT	RESULT			ANALYZED	
Benzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Ethylbenzene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Toluene	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
Xylene, total	8021	5.0	<5.0	1	µg/kg	12/17/04	LM
TPHGRO	8015	100	12300 12.3	1	µg/kg	12/17/04	LM
TPHDRO	8015	10	1390	1	mg/kg		LM

1402.3 PPM

Failed: TPH @ 1402.3 PPM < 1,000 PPM Site Standard

Passed: BTEX @ N.D. < 500 PPM Site Standard

D. Zufelt
For: John Green, Laboratory Manager

Green Analytical
75 Suttle Street
Durango CO, 81303

Project: RDT Pits
Project Number: S05-099
Project Manager: Bob Schwening

Reported:
07/01/05 15:45

Warren 26-#2 Land Farm

RAS2-011
T500649-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Purgeable Petroleum Hydrocarbons by EPA 8015m

C6-C12 (GRO)	ND	500	ug/kg	1	5052709	05/27/05	05/30/05	EPA 8015m	
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Surrogate: 4-Bromofluorobenzene	90.4 %	65-135	"	"	"	"	"	"	"
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Extractable Petroleum Hydrocarbons by 8015

Diesel Range Hydrocarbons	ND	10	mg/kg	1	5052707	05/27/05	06/03/05	EPA 8015m	
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Volatile Organic Compounds by EPA Method 8021B

Benzene	ND	5.0	ug/kg	1	5052709	05/27/05	05/30/05	EPA 8021B	
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Toluene	ND	5.0	"	"	"	"	"	"	"
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Ethylbenzene	ND	5.0	"	"	"	"	"	"	"
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m,p-Xylene	ND	10	"	"	"	"	"	"	"
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o-Xylene	ND	5.0	"	"	"	"	"	"	"
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Surrogate: 4-Bromofluorobenzene	92.8 %	65-135	"	"	"	"	"	"	"
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Passed: TPH @ N.D. < 1,000 PPM site Standard
Passed: BTEX @ N.D. < 50 PPB site Standard

SunStar Laboratories, Inc.

John Shepler For Dennis Dorning, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

