1RP-224
11.2.05

August 10, 2001

N.M.O.C.D.
P.O. Box 1980
Hobbs, NM 88241

Attn: Paul Sheeley

Dear Paul:
Enclosed, please find a copy of the spill closure report for the Phoenix Hydrocarbon spill west of Tatum.

As you will note, the contaminated soils were excavated and transported to the Gandy / Marley Disposal Facility near Caprock and clean replacement soils brought in to backfill.

Please advise if you've any questions or comments.

Warmest regards,

Mike Griffin
President
Whole Earth Environmental, Inc.

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

SP/PS

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-14
Originated 2/13/

Submit 2 copies
Appropriate Distr
Office in accordan
with Rule 116
back side of fo

Release Notification and Corrective Action

OPERATOR ☐ Initial Report ☑ Final Rep

Name	Contact
PHOENIX HYDROCARBON OPR. CO P P	VICTOR A. VICE
Address	Telephone No.
P.O. BOX 857, TATUM, NEW MEX. 88267	505-398-6609 Mob. 398-479
Facility Name	Facility Type
BURRO WATER LINE	PIPELINE

Surface Owner	Mineral Owner	Lease No.
RICKY PEARCE	SAME	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	22	11-S	33 E					LEA

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
12" WATER LINE	300-400 BBLS	166 BBLS
Source of Release	**Date and Hour of Occurrence**	**Date and Hour of Discovery**
SALT WATER	NIGHT-6-24-01	8:30 AM -6-24-
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?**	BILL PRICHARDS
By Whom?	**Date and Hour**	
VICTOR A. VICE	6-24-01 - 4:00 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.**	

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

N/A

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

12" TRANSIT COLLAR WAS LEAKING. PICK UP ALL POSSABLE WATER FENCED AREA TILL IT GETS A LITTE DRIER. REPLACED COLLAR & CEMENT AROUND L

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

RANCH LAND " 300' X 150'

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Victor A Vice	**OIL CONSERVATION DIVISION**
Printed Name: VICTOR A VICE	Approved by District Supervisor:
Title: PROD - FOREMAN	Approval Date: / Expiration Date:
Date: 6-26-01 Phone:	Conditions of Approval: / Attached ☐

Executive Summary

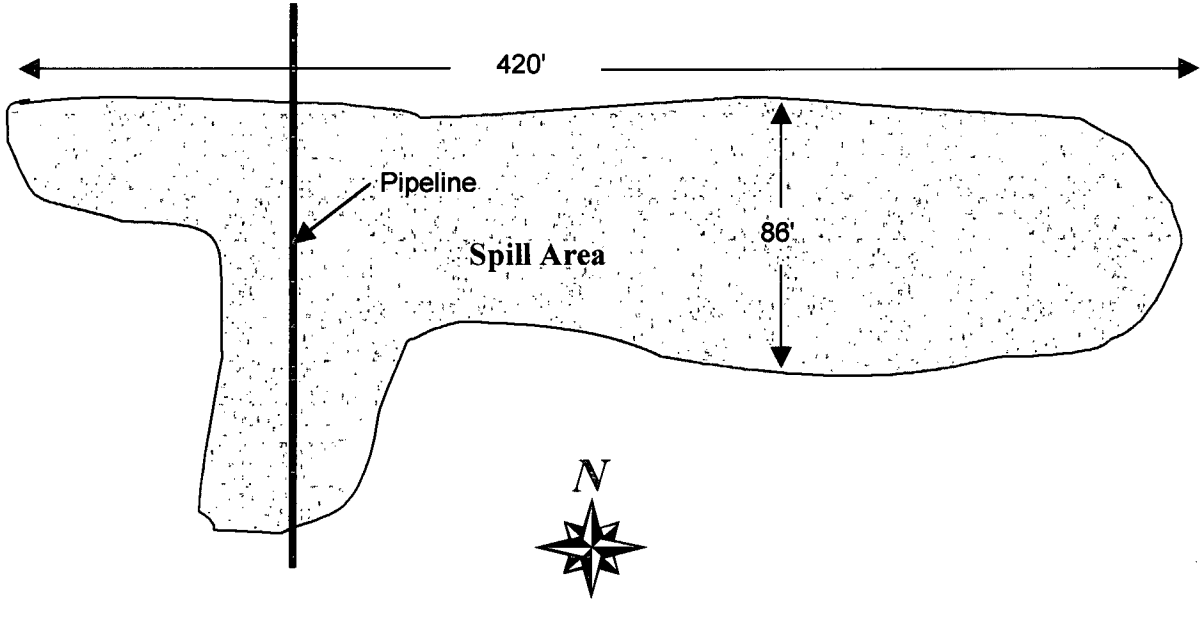
Site Profile
The spill area is located approximately eighteen miles west of Tatum, New Mexico. The primary lands use is cattle ranching. There is extensive oil and gas production within the area. There are no water wells within one mile of the spill area.

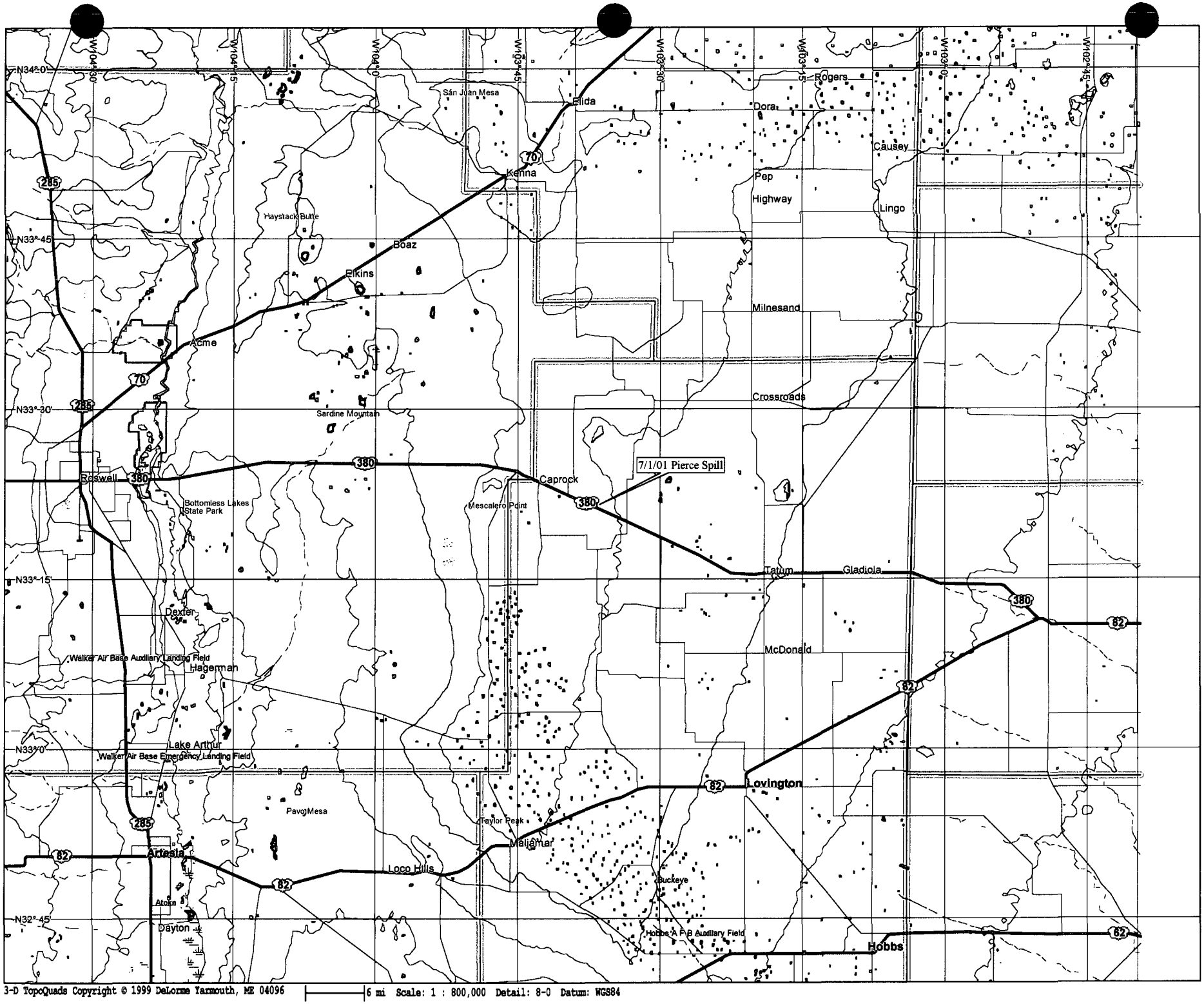
Spill History
The leak occurred on June 24th, 2001 at a joint connection within a transite line. The transite line is used as a collection system going to a disposal facility. Approximately 3-400 bbls of produced water was lost prior to discovery.

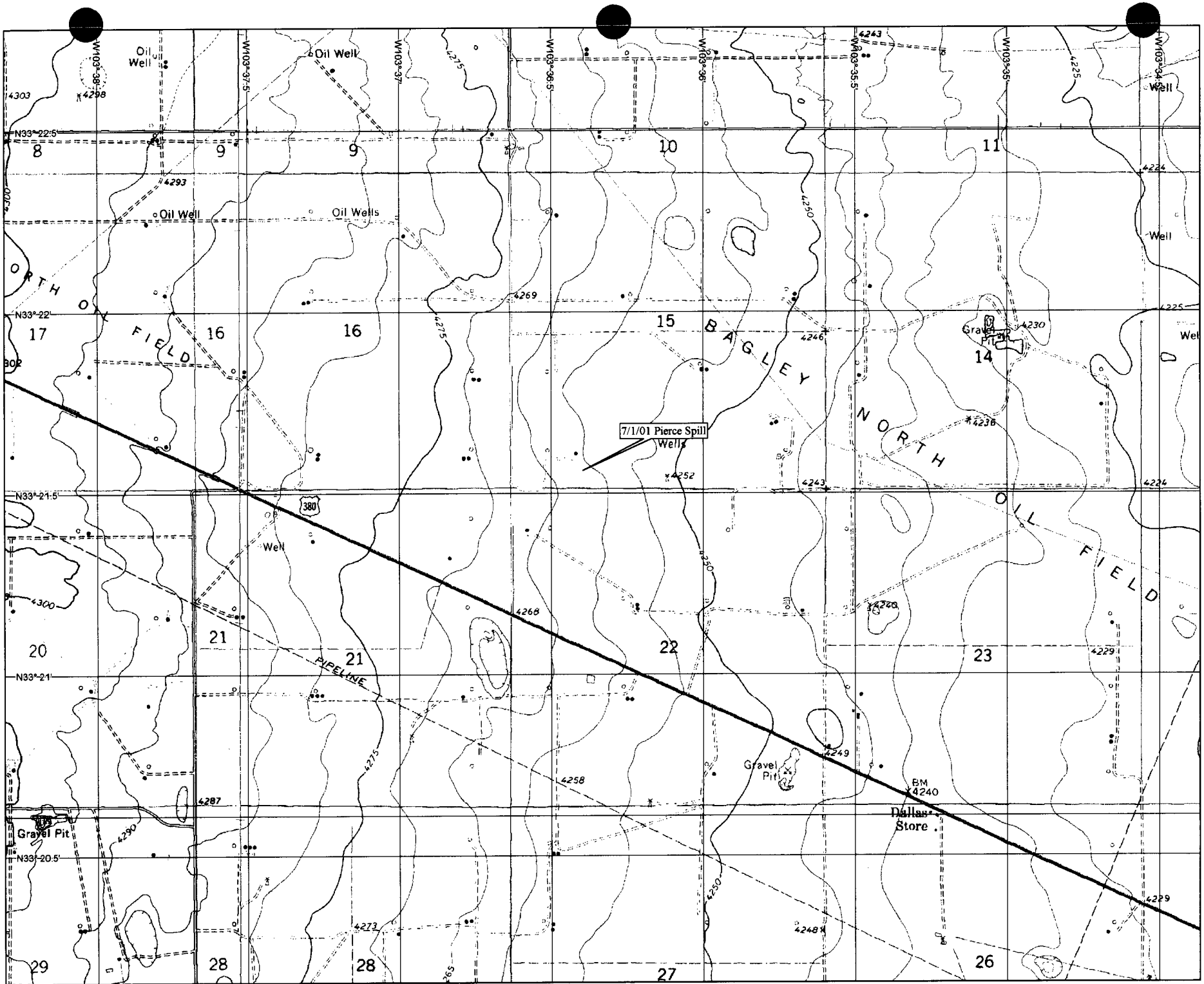
Remediation Method 2334'
Seven hundred seventy-eight cubic yards of contaminated soils were excavated and transported to the Gandy / Marley Disposal facility near Crossroads, New Mexico. Copies of the disposal manifests are included within this report. Replacement soils were transported back to the location and graded to match the existing topography.

Testing & Documentation
Whole Earth Environmental, Inc. surveyed the site on July 11th and took a series of five soil borings from the length of the spill area. The soil borings were taken from at depths between 12-24" below ground level in soils that were undisturbed from the remediation activities. The samples were analyzed for the presence and concentration of chlorides and TPH on location and subsequently sent to Environmental Labs of Texas for confirmation. The results of these confirmation tests are contained within this report.

Phoenix Hydrocarbons
7/01/01 Pierce Spill
Site Diagram

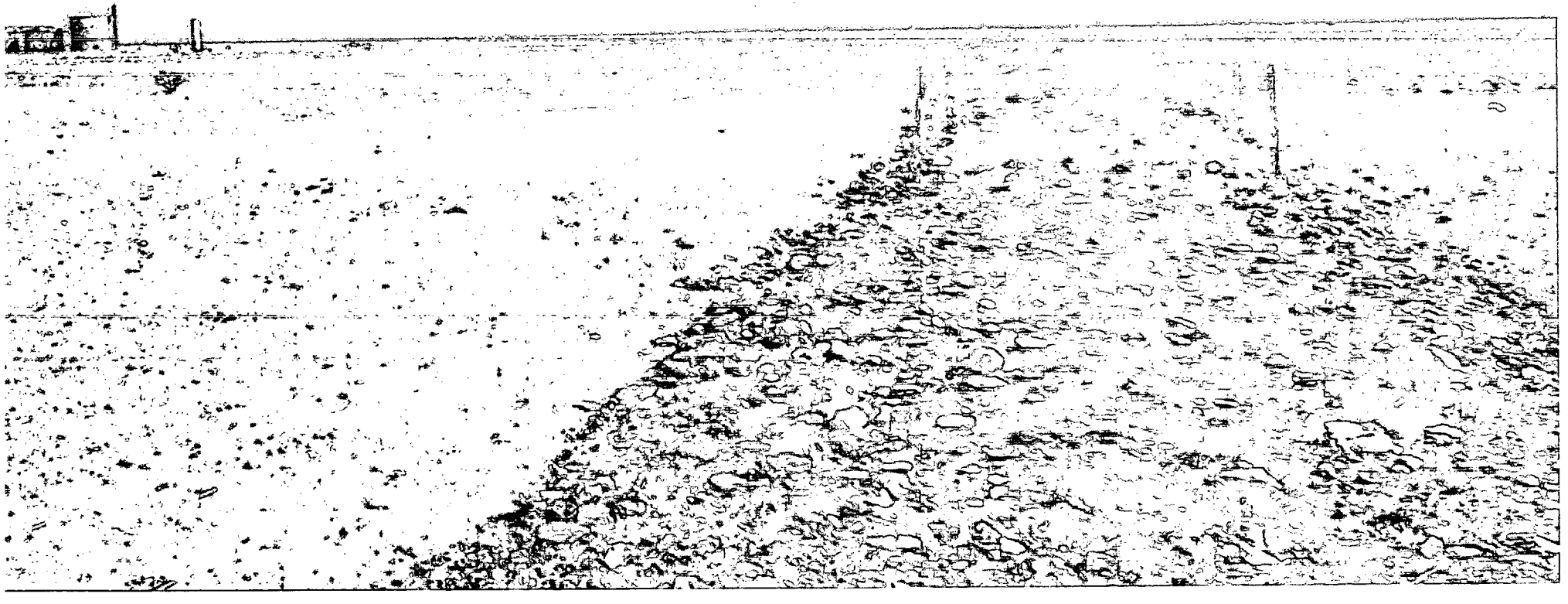



7/1/01 Pierce Spill
Roswell
Artesia
Hobbs
Lovington
Caprock
Tatum
Gladiola
McDonald
Crossroads
Milnesand
Elkins
Boaz
Acme
Kenna
Elida
Dora
Causey
Lingo
Rogers
Pep
Highway
Hagerman
Dexter
Lake Arthur
Loco Hills
Maljamar
Buckeye
Dayton
Atoka
Pavo Mesa
Taylor Peak
Mescalero Point
Sardine Mountain
Haystack Butte
San Juan Mesa
Bottomless Lakes State Park
Walker Air Base Auxiliary Landing Field
Walker Air Base Emergency Landing Field
Hobbs A F B Auxiliary Field
W104°30'
W104°15'
W104°0'
W103°45'
W103°30'
W103°15'
W103°0'
W102°45'
N34°0'
N33°45'
N33°30'
N33°15'
N33°0'
N32°45'
285
70
380
82
3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096
6 mi Scale: 1 : 800,000 Detail: 8-0 Datum: WGS84



 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

7-11-01 View to North
Detail of Pipeline Area



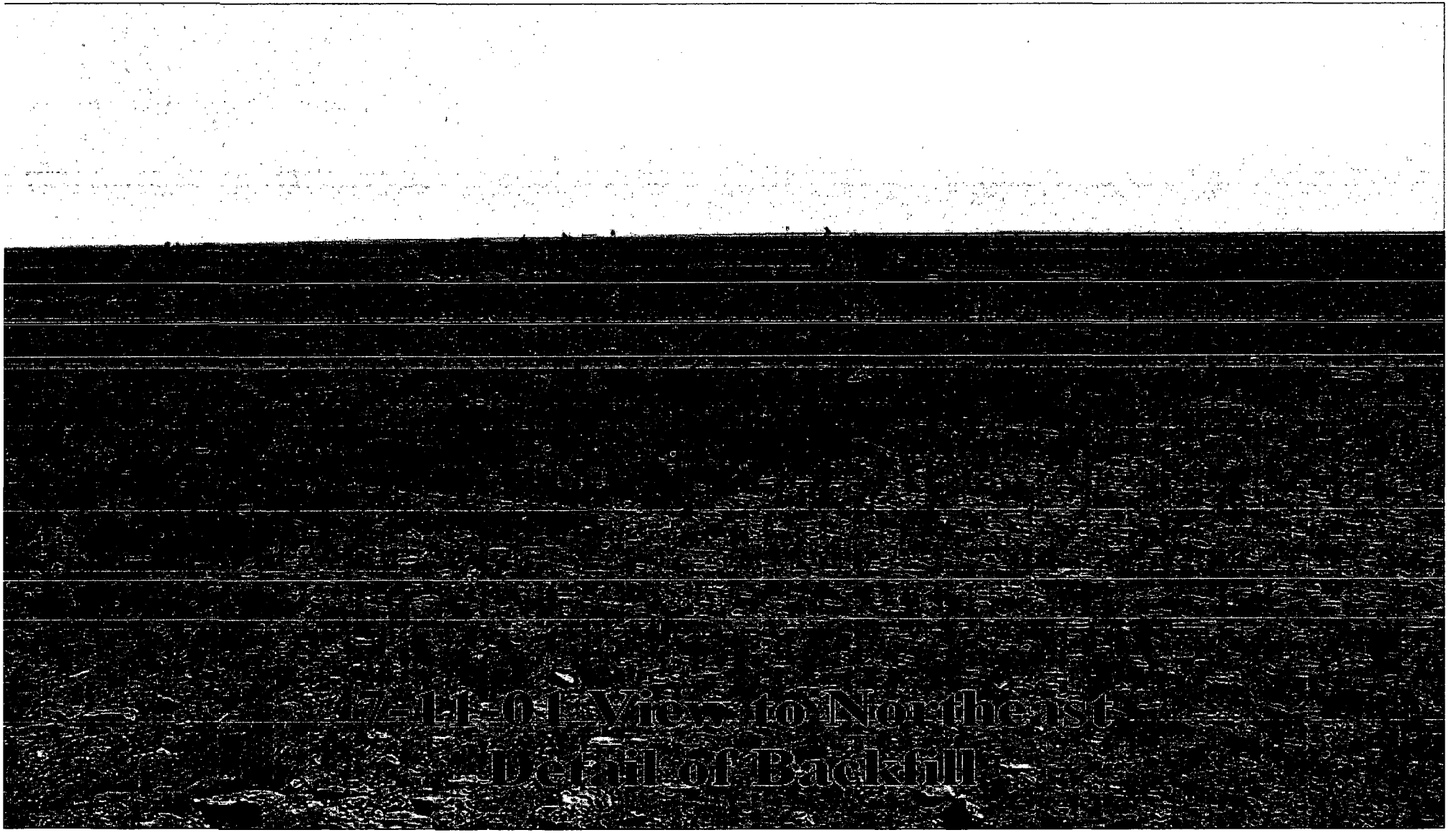


Figure 17-11-01 View to Northeast
Detail of Backfill

Procedures

This section contains copies of the field testing and laboratory sample collection procedures employed on this project.

QP-06 Rev. C

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Conducting Field TPH Analysis

Completed By:	Approved By:	Effective Date: 02/15/97

1.0 Purpose

To define the procedure to be used in conducting total percentage hydrocarbon testing in accordance with EPA Method 418.1 (modified) using the "MEGA" TPH Analyzer.

2.0 Scope

This procedure is to be used for field testing and on site remediation information.

3.0 Procedure

3.1 The G.A.C. "MEGA" TPH analyzer is an instrument that measures concentrations of aliphatic hydrocarbons by means of infra-red spectrometry. It is manufactured to our specifications and can accurately measure concentrations from two parts per million through 100,000 parts per million. The unit is factory calibrated however minor calibration adjustments may be made in the field. Quality Procedure 25 defines the field calibration methods to be employed.

3.2 Prior to taking the machine into the field, insert a 500 ppm and 5,000 ppm calibration standard into the sample port of the machine. Zero out the Range dial until the instrument records the exact standard reading.

3.3 Once in the field, insert a large and small cuvette filled with clean Freon 113 into the sample port of the machine. Use the range dial to zero in the reading. If the machine does not zero, do not attempt to adjust the span dial. Immediately implement Quality Procedure 25 .

3.4 Place a 100 g. weight standard on the field scale to insure accuracy. Zero out the scale as necessary.

3.5 Tare a clean 100 ml. sample vial with the Teflon cap removed. Add 10 g. (+/- .01 g), of sample soil into the vial taking care to remove rocks or vegetable matter from the sample to be tested. If the sample is wet, add up to 5 g. silica gel or anhydrous sodium sulfate to the sample after weighing.

3.6 Dispense 10 ml. Freon 113 into the sample vial.

3.7 Cap the vial and shake for five minutes.

3.8 Carefully decant the liquid contents of the vial into a filter/desiccant cartridge and affix the cartridge cap. Recap the sample vial and set aside.

3.9 Insert the metal tip of the pressure syringe into the cap opening and slowly pressurize. WARNING: APPLY ONLY ENOUGH PRESSURE ON THE SYRINGE TO EFFECT FLOW THROUGH THE FILTERS. TOO MUCH PRESSURE MAY CAUSE THE CAP TO SEPARATE FROM THE BODY OF THE CARTRIDGE. Once flow is established through the cartridge direct the flow into the 5 cm. cuvette until the cuvette is full. Reverse the pressure on the syringe and remove the syringe tip from the cartridge cap. Set the cartridge aside in vertical position.

3.10 The cuvette has two clear and two frosted sides. Hold the cuvette by the frosted sides and carefully insert into the sample port of the machine. Read the right hand digital read-out of the instrument. If the reading is less than 1,000 ppm. the results shall be recorded in the field Soil Analysis Report. If the result is higher than 1,000 ppm, continue with the dilution procedure.

4.0 Dilution Procedure

4.1 When initial readings are greater than 1,000 ppm using the 5 cm. cuvette, pour the contents of the 5 cm. cuvette into a 1 cm. cuvette. Insert the 1. cm cuvette into the metal holder and insert into the test port of the instrument.

4.1 Read the left hand digital read-out of the machine. If the results are less than 10,000 ppm, record the results into the field Soil Analysis Report. If greater than 10,000 ppm, continue the dilution process. Concentrations >10,000 ppm are to be used for field screen purposes only.

4.2 Pour the contents of the small cuvette into a graduated glass pipette. Add 10 ml. pure Freon 113 into the pipette. Shake the contents and pour into the 1cm. cuvette. Repeat step 4.2. adding two zeros to the end of the displayed number. If the reported result is greater than 100,000 ppm. the accuracy of further readings through additional dilutions is extremely questionable. Do not use for reporting purposes.

4.4 Pour all sample Freon into the recycling container.

5.0 Split Samples

5.1 Each tenth test sample shall be a split sample. Decant approximately one half of the extraction solvent through a filter cartridge and insert into the instrument to obtain a concentration reading. Clean and rinse the cuvette and decant the remainder of the fluid to obtain a second concentration reading from the same sample. If the second reading varies by more than 1% from the original, it will be necessary to completely recalibrate the instrument.

QP-77

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Obtaining
Soil Samples for Transportation to a Laboratory

Completed By: Approved By: Effective Date: / /

1.0 Purpose

This procedure outlines the methods to be employed when obtaining soil samples to be taken to a laboratory for analysis.

2.0 Scope

This procedure is to be used when collecting soil samples intended for ultimate transfer to a testing laboratory.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the soil. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 If collecting TPH, BTEX, RCRA 8 metals, cation / anions or O&G, the sample jar may be a clear 4 oz. container with Teflon lid. If collecting PAH's, use an amber 4 oz. container with Teflon lid.

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the number, location and designation of each planned sample and the individual tests to be performed on the sample. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label). Affix the labels to the jars.

5.0 Sampling Procedure

5.1 Go to the sampling point with the sample container. If not analyzing for ions or metals, use a trowel to obtain the soil. Do not touch the soil with your bare hands. Use new latex gloves with each sample to help minimize any cross-contamination.

5.2 Pack the soil tightly into the container leaving the top slightly domed. Screw the lid down tightly. Enter the time of collection onto the sample collection jar label.

5.3 Place the sample directly on ice for transport to the laboratory.

5.4 Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

6.0 Documentation

6.1 The testing laboratory shall provide the following minimum information:

A. Client, Project and sample name.
B. Signed copy of the original Chain of Custody Form including data on the time the sample was received by the lab.
C. Results of the requested analyses
D. Test Methods employed
E. Quality Control methods and results

QP-96

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Sampling and Testing Protocol
Chloride Titration Using .1 Normal
Silver Nitrate Solution

Completed By: Approved By: Effective Date: / /

1.0 Purpose

This procedure is to be used to determine the concentrations of chlorides in soils.

2.0 Scope

This procedure is to be used as the standard field measurement for soil chloride concentrations.

3.0 Sample Collection and Preparation

3.1 Collect at least 80 g. of soil from the sample collection point. Take care to insure that the sample is representative of the general background to include visible concentrations of hydrocarbons and soil types. If necessary, prepare a composite sample of soils obtained at several points in the sample area. Take care to insure that no loose vegetation, rocks or liquids are included in the sample(s).

3.2 The soil sample(s) shall be immediately inserted into a one quart or larger polyethylene freezer bag. Care should be taken to insure that no cross-contamination occur between the soil sample and the collection tools or sample processing equipment.

3.3 The sealed sample bag should be massaged to break up any clods.

4.0 Sample Preparation

4.1 Tare a plastic cup having a minimum six-ounce capacity. Add between 80-120 grams of the soil sample and record the weight.

4.2 Add the same weight of distilled water to the soil sample and stir thoroughly using a glass or plastic stir stick.

4.3 Allow the sample to set for a period of thirty minutes. The sample should be stirred at least three times before fluid extraction.

4.4 Carefully pour off the free liquid from the sample through a paper filter into a clean plastic cup.

5.0 Titration Procedure

5.1 Using a graduated pipette, remove 10 ml extract and dispense into a clean plastic cup.

5.2 Add 2-3 drops potassium chromate (K_2CrO_4) to mixture.

5.3 If the sample contains any sulfides (hydrogen or iron sulfides are common to oilfield soil samples) add 2-3 drops of hydrogen peroxide (H_2O_2) to mixture. Allow the mixture to set for a minimum of five minutes.

5.4 Using a 1 ml pipette, carefully add .1 normal silver nitrate solution to sample until solution turns salmon red when viewed with yellow goggles. Be consistent with endpoint recognition.

6.0 Calculation

Multiply the amount of silver nitrate used in step 5.4 by 354.5 to obtain the chloride concentration in mg/L.

Laboratory Analytical Results

This section contains copies of the chain of custody document and all laboratory analytical results for this project.

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Company Name: Whole Earth Environmental, Inc.

Company Address: 19606 San Gabriel

City/State/Zip: Houston, Tx. 77084

Telephone No: 800.854.4358 Fax No: 281.646.8996

Sampler Signature: M. G. M.

Project Name: Phoenix Spill

Project #:

Project Loc: Tatum, NM

PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO$_3$	HCl	NaOH	H$_2$SO$_4$	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For (TCLP: / TOTAL:): TDS / Cl / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Chlorides						RUSH TAT (Pre-Schedule)	Standard TAT
	2	7/19/01	10:30	1	X									X					X				X	X							
	3	7/19/01	10:30	1	X									X										X							
	4	7/19/01	10:30	1	X									X										X							

Special Instructions:

Sample Containers Intact? (Y) N
Temperature Upon Receipt:
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
M. G. M.	7/23/01	4:50			
Relinquished by:	**Date**	**Time**	**Received by ELOT:**	**Date**	**Time**
			[illegible signature]	7-23-01	1650

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

WHOLE EARTH ENVIRONMENTAL
ATTN: MR. MIKE GRIFFIN
19606 SAN GABRIEL
HOUSTON, TEXAS 77084
FAX: 281-646-8996

Sample Type: Soil
Sample Condition: Intact/ Iced/ 4.0 deg C
Project #: None Given
Project Name: Phoenix Spill
Project Location: Tatum, NM

Sampling Date: 07/19/01
Receiving Date: 07/23/01
Analysis Date: 07/24/01

ELT#	FIELD CODE	Chloride mg/kg
0101191-01	2	26
0101191-02	3	35
0101191-03	4	26

QUALITY CONTROL	5140
TRUE VALUE	5000
% INSTRUMENT ACCURACY	103
SPIKED AMOUNT	5000
ORIGINAL SAMPLE	2300
SPIKE	7620
SPIKE DUP	7530
% EXTRACTION ACCURACY	105
BLANK	<10.0
RPD	1.19

METHODS: EPA SW 846-9253

Raland K. Tuttle

7-25-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

WHOLE EARTH ENVIRONMENTAL
ATTN: MR. MIKE GRIFFIN
19606 SAN GABRIEL
HOUSTON, TEXAS 77084
FAX: 281-646-8996

Sample Type: Soil
Sample Condition: Intact/ Iced/ 4.0 deg C
Project #: None Given
Project Name: Phoenix Bluitt
Project Location: Tatum, NM

Sampling Date: 07/19/01
Receiving Date: 07/23/01
Analysis Date: 07/24/01

ELT #	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101191-01	2	310	387

QUALITY CONTROL	421	412
TRUE VALUE	500	500
% INSTRUMENT ACCURACY	84	82
SPIKED AMOUNT	476	476
ORIGINAL SAMPLE	<10	<10
SPIKE	483	479
SPIKE DUP	507	510
% EXTRACTION ACCURACY	101	101
BLANK	<10	<10
RPD	5	6

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-25-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

WHOLE EARTH ENVIRONMENTAL
ATTN: MR. MIKE GRIFFIN
19606 SAN GABRIEL
HOUSTON, TEXAS 77084
FAX: 281-646-8996

Sample Type: Soil
Sample Condition: Intact/ Iced/ 4.0 deg C
Project #: None Given
Project Name: Phoenix Spill
Project Location: Tatum, NM

Sampling Date: 07/19/01
Receiving Date: 07/23/01
Analysis Date: 07/24/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0101191-01	2	0.236	1.42	1.48	1.94	0.640

QUALITY CONTROL	0.103	0.101	0.099	0.221	0.102
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% INSTRUMENT ACCURACY	103	101	99	111	102
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	<0.025	<0.025	<0.025	<0.025
SPIKE	0.094	0.093	0.091	0.202	0.095
SPIKE DUP	0.098	0.098	0.096	0.217	0.100
% EXTRACTION ACCURACY	94	93	91	101	95
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	4	5	5	8	5

METHODS: EPA SW 846-8021B ,5030

Raland K. Tuttle

7-25-01
Date

Disposal Manifests

This section contains copies of the disposal manifests for all materials transported to the Gandy Marley Disposal Facility.

GANDY•MARLEY, INC.

P.O. Box 1658
Roswell, NM 88202
(505) 625-9206
Fax (505) 625-9706

№ 2954

LEASE OPERATOR/SHIPPER/COMPANY: Phoenix Hydrocarbon

LEASE NAME: Burro Pipe Line Spill

TRANSPORTER COMPANY: Gandy **TIME:** AM/PM

DATE: 7-5&6-01 **VEHICLE NO.:** **DRIVER NO.:**

CHARGE TO:

TYPE OF MATERIAL

OCD

[ ] Other Material: [ ] Contaminated soil [ ] C-117 No.:_____

[ ] BS&W content:_____

Description: Exempt

VOLUME OF MATERIAL [ ]:YARDS 779 : **CELL#** _____ : [ ] _____

AS A CONDITION TO GANDY•MARLEY, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. §6901, et seq., THE NM HEALTH AND SAF. CODE, §361.001, et seq. AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED CONTAMINATED SOILS AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO GANDY•MARLEY, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO GANDY•MARLEY, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: Mark Brass

FACILITY REPRESENTATIVE: Jim Thompson

White - GMI Canary - Shipper Pink - GMI Gold - Transporter