Whole Earth Environmental, Inc.
2103 Arbor Cove
Katy, Tx. 77494
281.394.2050
whearth@msn.com

March 25, 2005

NMOCD
1625 North French Dr.
Hobbs, NM 88240

Attn: Paul Sheeley

Dear Paul:
Enclosed, please find a copy of the spill investigation report for the Mission Resources State A A/C # 1 Tank Battery 5 facility. As you will note from the report, the spill appears to have done little environmental damage and models out as posing no threat to groundwater for at least two hundred years.

As the site is currently an active facility, Mission would like to address the long term ramifications of this incident at the time of the final facility closure.

Warmest personal regards,

Mike Griffin
President
Whole Earth Environmental, Inc.

Mission Resources - 148381
facility - fPAC0606830499
incident - nPAC0606830664
application - pPAC0606830862

Executive Summary

On March 11, 2005 Mission Resources discovered a spill having a maximum volume of approximately 120 barrels. The spill was discovered approximately 15 minutes into the event. Mission immediately took action to stop the spill and recover the water contained within the facility berms. Due to the sandy soil type, the majority of the spilled fluids penetrated into the soil within the containment berms. The spill was formally reported to the Hobbs office of the NMOCD on March 15.

Whole Earth Environmental, Inc. conducted an examination of the affected area on April 18, 2005 collecting a series of one water and six soil samples from the site. The water was found to contain only light amounts of chlorides (1,699 ppm Cl.), and no detectable concentrations of hydrocarbons.

An examination of the soil profile from surface to a depth of 15' below ground revealed that the upper surface TPH and BTEX concentrations were non-detectable and that acceptable chloride concentrations were found at depths above 15'. At 15' the chloride concentrations increased significantly atop a clay barrier.

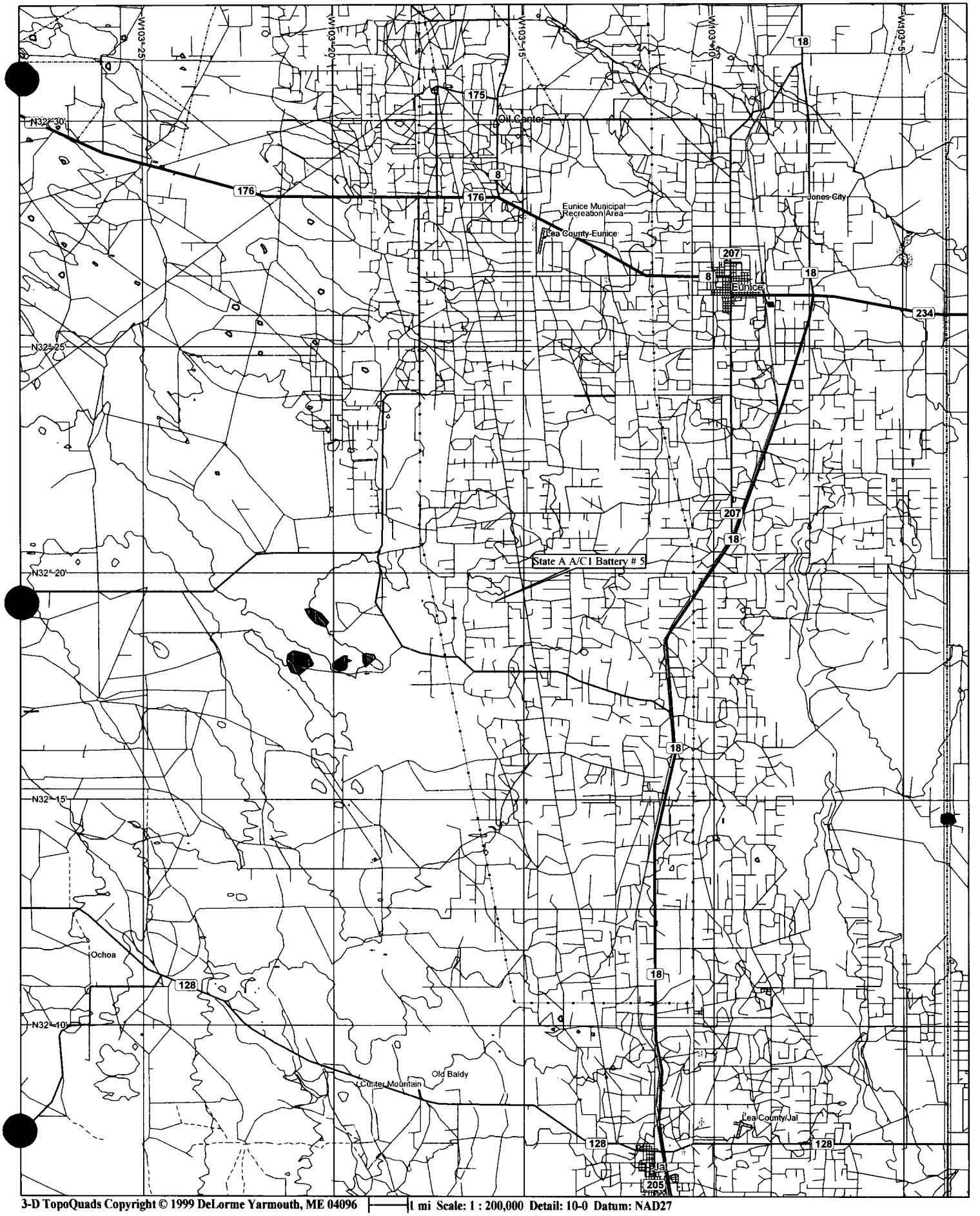
This battery has been in operation for at least thirty years and was only recently purchased by Mission Resources. We do not have a complete operating history of the facility but must assume that similar spill events have occurred within the operating life of the facility and that the higher chloride concentrations found at 15' may be related in part to previous events.

Whole Earth modeled the facility using VADSAT on a two hundred year migration span. The results of the model indicate that the 960 ppm concentration of chlorides having a separation of 235' from the water table will result in chloride migration concentrations of only 61 ppm over the two hundred year model period.

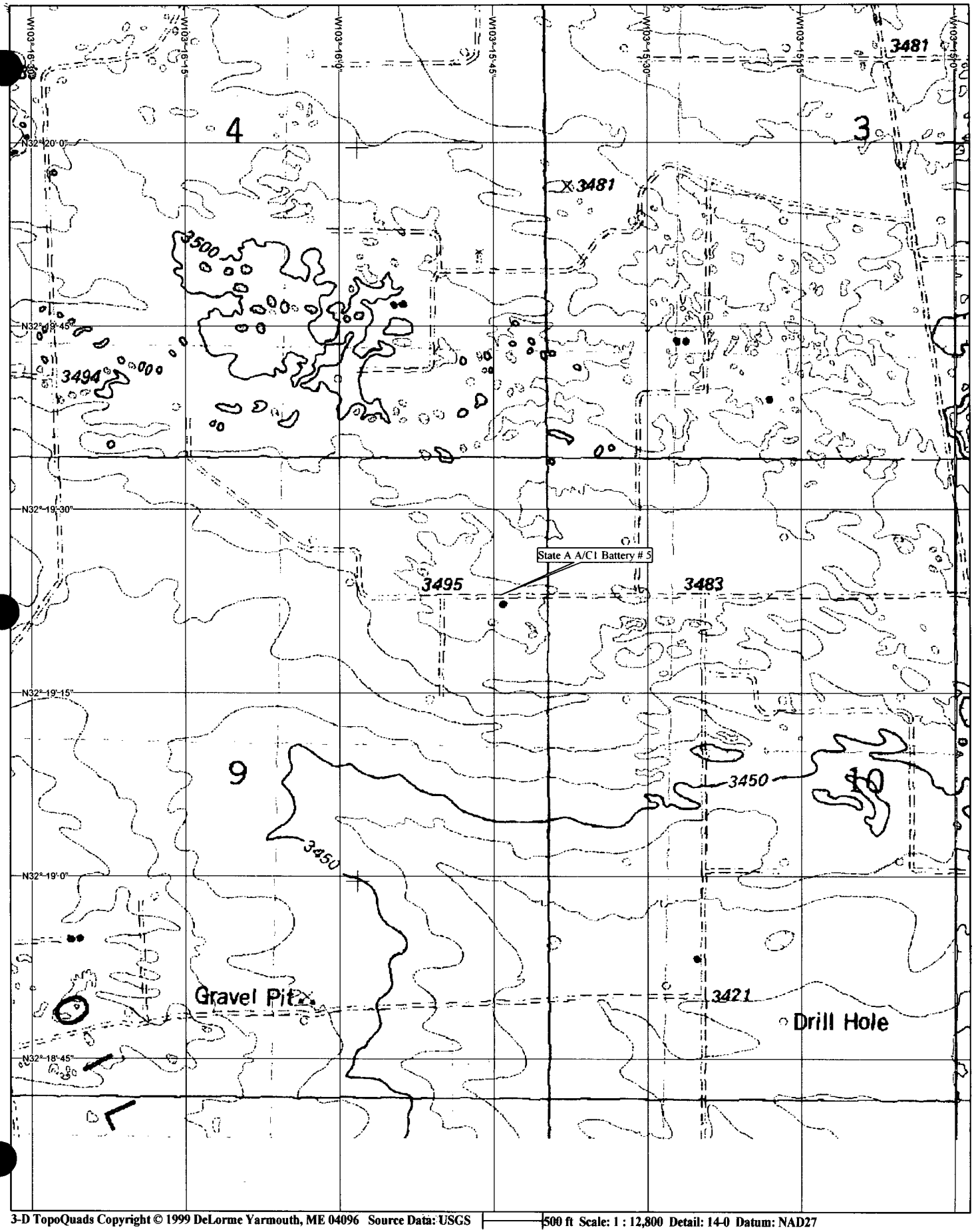
At the time of the final closure of the facility, Mission will remediate all surface and sub-surface hydrocarbon and chloride contaminated soils found to be in excess of NMOCD standards.

Exhibit Index

1. U.S.G.S. 7.5' map zoom out
2. U.S.G.S. 7.5' map zoom in
3. Spill Sketch
4. Photo of Lease Sign
5. Overview of Spill Area Prior to Excavation
6. Trench Detail
7. Backfill Detail
8. E-mail correspondence
9. C-141 Spill Report
10. VADSAT Data Entry
11. VADSAT 200 year Migration Model

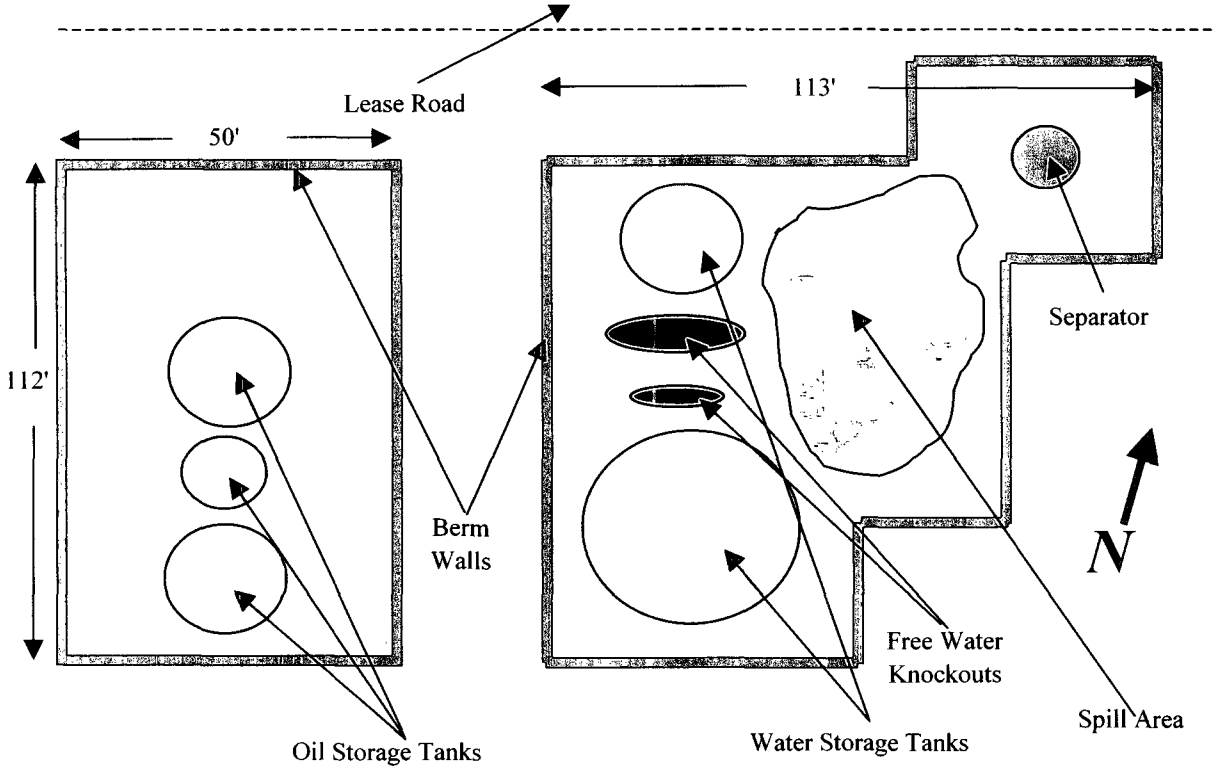


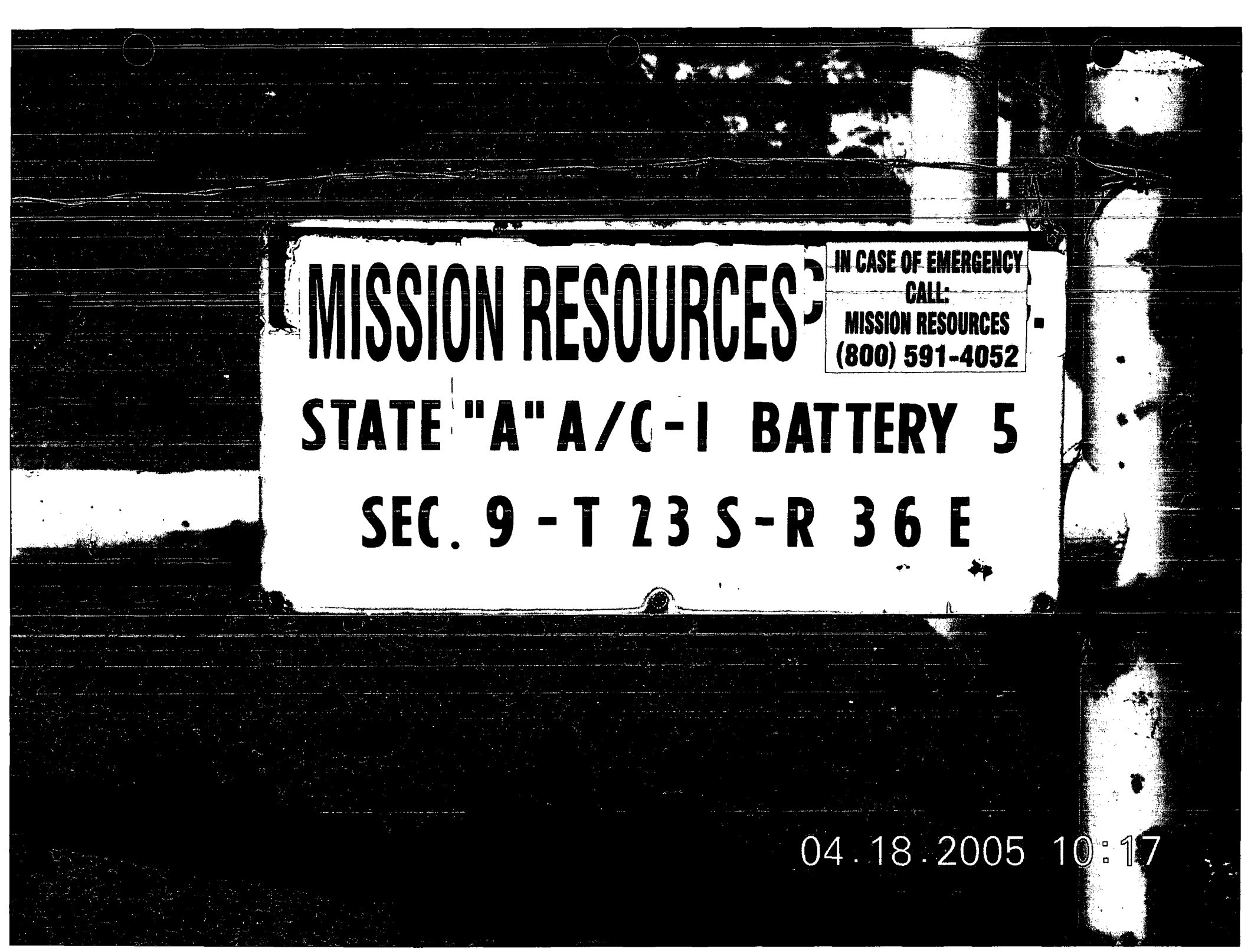
3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 1 mi Scale: 1 : 200,000 Detail: 10-0 Datum: NAD27

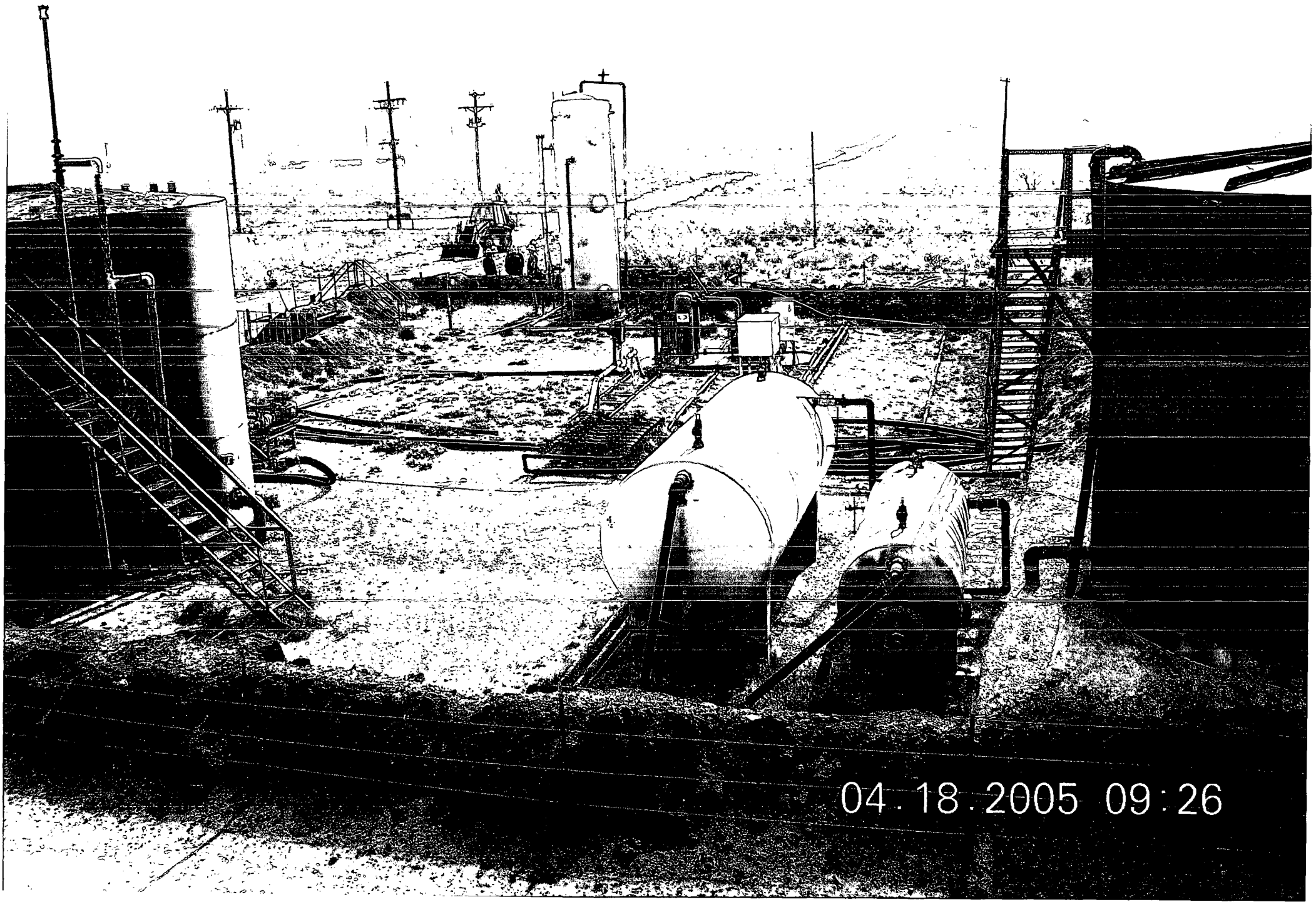


500 ft Scale: 1 : 12,800 Detail: 14-0 Datum: NAD27

Mission Resources Corporation
State A A/C 1 Battery # 5H
Spill Sketch




MISSION RESOURCES
IN CASE OF EMERGENCY
CALL:
MISSION RESOURCES
(800) 591-4052
STATE "A" A/C-1 BATTERY 5
SEC. 9 - T 23 S - R 36 E
04.18.2005 10:17


04.18.2005 09:26

04/18/2005 09:50

04-18-2005 10:13

From : Wells, Timothy <timothy.wells@mrcorp.com>
Sent : Thursday, March 24, 2005 7:18 AM
To : "Mike Griffin (E-mail)" <whearth@msn.com>
Subject : FW: Mission Recourses-Corrective action, landowner notification

Mike:

Here is the correspondence yesterday for New Mexico.

Timothy L. Wells, CSHM, WSO-CSM
Manager, Environmental and Safety
Mission Resources Corporation
(713) 495-3109 office
(832) 397-3917 fax
(832) 326-9174 cellular

-----Original Message-----
From: Sheeley, Paul [mailto:PSheeley@state.nm.us]
Sent: Wednesday, March 23, 2005 3:46 PM
To: Wells, Timothy
Subject: RE: Mission Recourses-Corrective action, landowner notification

Tim,
You all are responsible for knowing what you need to do. As it stands, I need to know that that 115 barrels will not impact the groundwater. Also, the SLO have requirements that landowners have. PLEASE See the Rules referenced on the last email and the attacement.

Please be advised that OCD approval does not relieve Mission of liability should operations result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Misison of responsibility for compliance with other federal, state or local laws and/or regulations.

-----Original Message-----
From: Wells, Timothy [mailto:timothy.wells@mrcorp.com]
Sent: Wednesday, March 23, 2005 2:26 PM
To: Sheeley, Paul
Subject: RE: Mission Recourses-Corrective action, landowner notification

Paul:

Thanks for the note. You had informed me that we actually were not required to do anything since this spill stayed within the containment area. Please confirm that we actually need to perform further remediation past notification.

Thanks,

Timothy L. Wells, CSHM, WSO-CSM

Manager, Environmental and Safety
Mission Resources Corporation
(713) 495-3109 office
(832) 397-3917 fax
(832) 326-9174 cellular

-----Original Message-----
From: Sheeley, Paul [mailto:PSheeley@state.nm.us]
Sent: Wednesday, March 23, 2005 3:19 PM
To: Wells, Timothy
Cc: Johnson, Larry; Williams, Chris
Subject: Mission Recourses-Corrective action, landowner notification

Mr.Wells,

Thank you for the C-141 spill report.

Unfortunately, the corrective action described was not OCD approved. Application of chemical fertilizer or any chemicals to the ground is not acceptable without written approval from OCD and the landowner. Please submit a MSDS for the chemicals applied and written approval from the landowner.

120 barrels of produced water was released and 5 barrels recovered. 115 barrels is missing. Vertical and horizontal delineation of chloride shall be performed.
Or, Mission shall propose a soil remediation level demonstrating that any chloride contamination will not cause an
exceedance in the New Mexico Water Quality Control Commission (WQCC) groundwater standard of 250 mg/L.

The spill location requires corrective action according to Rule 116 and the "Guidelines for Remediation of Leaks and Spills" found in the Environmental Handbook on the OCD website.

The New Mexico State Land Office must be notified.

Please review OCD Rule 12, 13, 116 and 19. Also the work plan checklist attached.
<<Workplan check list 040507.doc>>
Thnak you,
PSheeley

by return e-mail and permanently delete the copy you have received.

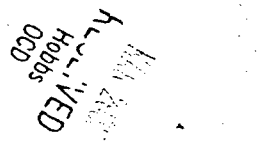
While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

MISSION
RESOURCES

CERTIFIED MAIL: 70020860000664621307

March 18, 2005

New Mexico Oil Conservation Division
District 1
Attention: Mr. Paul Sheeley
1625 N. French Drive
Hobbs, New Mexico 88240



RE: PRODUCED WATER SPILL
MISSION RESOURCES CORPORATION – STATE A A/C 1 TANK BATTERY #5H
JALMAT FIELD IN LEA COUNTY, NEW MEXICO MARCH 11, 2005

Mr. Sheeley:

In accordance with the New Mexico Oil Conservation Division's reporting procedures, Mission Resources Corporation respectfully submits the following information pertaining to the reportable release of produced water at our State A a/c 1 Tank Battery #5H-Jalmat Field in Lea County, New Mexico on March 11, 2005.

Spill Report: Please refer to the attached C-141 – Produced water did not impact any waterways and remained within the containment area.

Reported Amount Spilled: 120 Bbls.
Recovered Amount: 5 Bbls.

Duration of Incident Remediation: March 11 – March 12, 2005

Cause of Incident: The incident transpired due to a faulty reset causing a tank pump to trip allowing water to be continuously directed into produced water tank, resulting in the tank's overflow. This allowed approximately 120 Bbls of produced water to enter the contained tank battery. All flow was shut in, the spilled water was vacuumed and the soil was treated with approximately three sacks of high-grade nitrogen fertilizer.

Immediate Waterways: None

Site Location: Latitude: 32*19'21.8"N Longitude: 103*15/45.3W

Facility: Tank battery. Please refer to attached diagram

Should you require addition information, please feel free to contact me at 713.495.3109 or via e-mail at timothy.wells@mrcorp.com. Joel Sisk is our production representative in Eunice and can be reached at 505.394.2574.

Respectfully,

Timothy L. Wells, CSHM, WSO-CSM
Mission Resources Corporation
Manager, Environmental and Safety

Attachments

Cc: Wade Harlan, Mission
Joel Sisk, Mission
File

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. 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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Mission Resources Corporation	Contact: Joel Sisk-Eunice (Field) Timothy Wells-Houston (Corporate)
Address: 1331 Lamar, Suite 1455	Telephone No.: Field-505.394.2574 Corp.-713.495.3109
Facility Name: State A a/c 1 TB#5H	Facility Type: Tank Battery

Surface Owner: State	Mineral Owner: State	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	9	23S	36E		1200'		50'	Lea

Latitude:32*19'21.8"N Longitude: 103*15'45.3"W

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 120 Bbls.	Volume Recovered: 5 Bbls.
Source of Release: Water tank run over	Date and Hour of Occurrence: 031105 08:30 a.m.	Date and Hour of Discovery: 031105 0845 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? To Joel Sisk at the field office then to 24 Hr. answering service	
By Whom? Keith Logan	Date and Hour: 031105 0845 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

A faulty reset caused a tank pump to trip allowing water to be directed into tank. Replaced the reset to the pump and repaired electrical on the pump system. Will continuously monitor electrical systems at tank batteries.

Describe Area Affected and Cleanup Action Taken.*

Floor of tank battery within the containment walls. Vacuumed standing liquids and treated soil with three sacks of high grade nitrogen and raked into soil.

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:	OIL CONSERVATION DIVISION	
Printed Name: Timothy L. Wells	Approved by District Supervisor:	
Title: Manager, Environmental and Safety	Approval Date:	Expiration Date:
E-mail Address: timothy.wells@mrcorp.com	Conditions of Approval:	Attached ☐
Date: 031505 Phone: 713.495.3109		

* Attach Additional Sheets If Necessary

Whole Earth Environmental, Inc
Mission Resources
State A A/C 1 Battery # 5

E&P Waste Management / Exposure Assessment Model

Control Data	Entry	U / M
Deterministic	Yes	
Final Time	73,000	Days
Time Interval	365	Days
Monte Carlo	No	
Low Permeability Layer Below Contamination	No	

Source Data		
Waste Zone thickness	50	Feet
Waste Zone Area	85	sq. meter
Ratio of Length to Width	1.0	
Initial Total Concentration in Waste	960	ppm

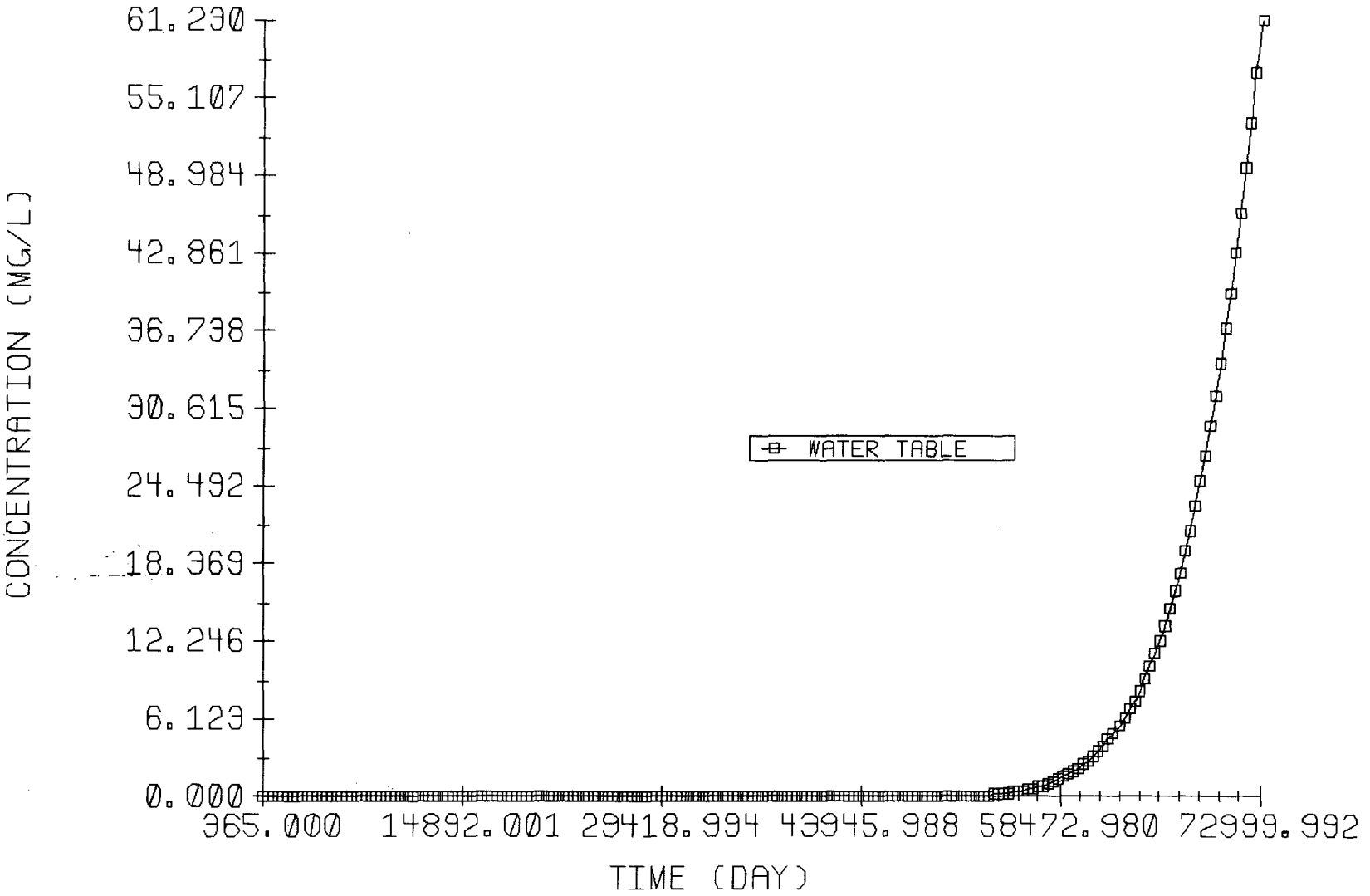
Chemical Data	
NaCl	Yes

Unsaturated Zone		
Soil Database	All Groups	
Hydraulic Conductivity	0.088	meters / day
Hydrological Database	Bedded Sedimentary	
Unsaturated Zone Thickness	14	Feet
Soil Database	All Groups	
van Genuchten	1.09	(Default)
Residual Water Content	0.068	
Unsaturated Zone Dispersivity	0	(Internally)

Saturated Zone		
Aquifer Porosity	0.02	(Default)
Longitudinal Dispersivity	0	(Internally)
Ratio of Long. / Trans. Dispersivities	3	
Ratio of Trans. / Vert. Dispersivities	87	
Hydrological Database	Bedded Sedimentary	
Aquifer Thickness	10	meters
Aquifer Gradient	0.00928	
Saturated Hydraulic Conductivity	0.13	meters / day

Net Infiltration Rate	0.00001	ft. / day

CONCENTRATION VS. TIME



Procedures

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

QP-12

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Soil Sample Preparation:
Moisture Weight Percentage

Completed By:	Approved By:	Effective Date: / /

1.0 Purpose

This procedure outlines the methods to be employed in preparing samples to be tested for electrical conductivity and cation exchange capacities.

2.0 Scope

This procedure shall be followed when preparing any electrical conductivity, (EC), or cation exchange capacity, (CEC), testing.

3.0 Procedure

3.1 Field collection of all soil samples shall be in plastic containers. Samples may be stored for a maximum of five days prior to processing.

3.2 Homogenize sample thoroughly. Test for hydrophobic characteristics as follows:

a. examine for visible globs of oil or grease
b. press soil sample to determine if it compresses into a damp mass
c. test to determine if the sample stains filter paper

If the sample exhibits hydrophobic characteristics, prepare in accordance with 3.3.2 below. Otherwise, prepare in accordance with 3.3.1.

3.3.1 Weigh 120 +/- 0.1g sample into tared crucible and dry at 105^0 C for 1 hour. Cool and reweigh. Repeat until weight difference is less than 1% value.

3.3.2 Weigh 120 +/- 0.1 g sample into tared crucible and dry in oven at 250^0 C for one hour. Cool and heat with propane torch until sample just begins to smoke. Maintain gradual heating until smoke dissipates (approximately 1/2 hour). **DO NOT ALLOW THE SAMPLE TO CATCH FIRE OR EXCEED 390^0 C.** Cool and reweigh. Grind to pass 2mm sieve.

3.4 Report percent moisture to three significant figures as follows:

Moisture % = [(W - D)/D] X 100
W = wet sample weight
D = dry sample weight

3.5 References

Diagnosis and Improvement of Saline and Alkali Soils; U.S. Salinity Laboratory Staff, Agriculture Handbook No. 60; 1954

Deuel & Holliday, Soil Remediation for the Petroleum Extraction Industry; Houston, Tx. 1993.

QP-13

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Preparing a Paste Extraction

Completed By:	Approved By:	Effective Date: / /

1.0 Purpose

This procedure defines the methods to be employed in preparing a paste extraction to be analyzed for conductivity and exchangeable cations.

2.0 Scope

This procedure shall be used in all electrical Conductivity (EC) and Cation Exchange Capacity (CEC) tests.

3.0 Procedure

3.1 All samples shall be prepared in accordance with QP-12.

3.2 Weigh 100 +/- 0.1g soil sample into tared sample reservoir of filter assembly. Add deionized reagent water to fill pores, stirring gently with plastic stirrer to achieve saturation. The solid/water mixture is consolidated occasionally by tapping the container on the workbench. At saturation the surface of the mixture glistens and flows slightly when tipped. Let stand for one hour. The mixture should not stiffen or puddle; add more sample or water as required and allow to stand for one additional hour.

3.3 Analyze paste extract directly for EC and pH.

3.4 Connect filter assembly to vacuum assembly and filter extract until air begins to pass through filter. Analyze directly for Na, Ca, Mg, K.

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 Report

This section contains the chain of custody and laboratory analytical results of soil samples taken from various depths at the site.

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WHOLE EARTH ENVIRONMENTAL
ATTN: M. GRIFFIN
2103 ARBOR COVE
KATY, TX 77494
FAX TO: (281) 394-2051

Receiving Date: 04/20/05
Reporting Date: 04/23/05
Project Number: NOT GIVEN
Project Name: MISSION STATE A
Project Location: NOT GIVEN

Sampling Date: 04/20/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		04/21/05	04/21/05	04/21/05	04/21/05	04/21/05	04/21/05
H9731-2	S	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H9731-7	15	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		772	805	0.093	0.095	0.092	0.275
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		96.5	101	92.6	95.2	91.6	91.8
Relative Percent Difference		3.9	2.6	2.1	8.0	3.0	8.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

4/23/05
Date

H9732A.XLS

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WHOLE EARTH ENVIRONMENTAL
ATTN: M. GRIFFIN
2103 ARBOR COVE
KATY, TX 77494
FAX TO: (281) 394-2051

Receiving Date: 04/19/05
Reporting Date: 04/21/05
Project Number: NOT GIVEN
Project Name: MISSION STATE A
Project Location: NOT GIVEN

Analysis Date: 04/21/05
Sampling Date: 04/18/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl^- (mg/Kg)
H9731-2	S	80
H9731-3	3	80
H9731-4	6	48
H9731-5	8	128
H9731-6	12	96
H9731-7	15	960
Quality Control		998
True Value QC		1000
% Recovery		99.8
Relative Percent Difference		2.2

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill
Chemist

4/21/05
Date

H9731

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WHOLE EARTH ENVIRONMENTAL
ATTN: M. GRIFFIN
2103 ARBOR COVE
KATY, TX 77494
FAX TO: (281) 394-2051

Receiving Date: 04/19/05
Reporting Date: 04/21/05
Project Number: NOT GIVEN
Project Name: MISSION STATE A
Project Location: NOT GIVEN

Analysis Date: 04/20/05
Sampling Date: 04/18/05
Sample Type: PRODUCED WATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)
H9731-1	PRODUCED WATER	1699
Quality Control		998
True Value QC		1000
% Recovery		99.8
Relative Percent Difference		2.2

METHOD: Standard Methods	4500-Cl^-B

Amy Hill
Chemist

4/21/05
Date

H9731W

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (325) 673-7001 Fax (325) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name:	Whole Earth Environ.	**BILL TO**	
Project Manager:	M. Griffin	P.O. #:	
Address:	2103 Arbor Cove	Company:	
City:	Katy State: Tx Zip: 77494	Attn:	
Phone #:	284.394.2050 Fax #: 281.394.2051	Address:	
Project #:	Project Owner:	City:	
Project Name:	Mission State A	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	M. Griffin	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides	BTEX	TPH DRO GRO
H9731-1	Produced Water	G	1	X							X		4-18-05	10:45	X		
-2	S		1			X									X	X	X
-3	3		1			X									X		
-4	6		1			X									X		
-5	8		1			X									X		
-6	12		1			X									X		
-7	15		1			X									X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: M. Griffin	Date: 4-19-05 Time: 4:15	Received By:	Phone Result: ☐ Yes ☐ No
Relinquished By:	Date: Time:	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Temp, °C / Intact? ☐ Yes ☐ No	Checked By: (Initials)	

† Cardinal cannot accept verbal changes. Please fax written changes to (325) 673-7020.