NM1 - 10

GENERAL CORRESPONDENCE

YEAR(S):

2005 - 1996

Martin, Ed, EMNRD

From: Martin, Ed, EMNRD **Sent:** Wed 6/15/2005 12:06 PM
To: phil@instreem.net
Cc: Foust, Denny, EMNRD; Anderson, Roger, EMNRD
Subject: Tierra Landfarm Testing Issues
Attachments: Letter 042105.doc(41KB) Tierra Sampling.bmp(1MB)

I have received your email response on the above subject.

1. Deadline for completion of testing is now July 15, 2005.
2. As far as OCD is concerned, Tierra, or some representative thereof is responsible for the testing. If you have some arrangements with Eco Systems, then it is your responsibility to see that Eco Systems completes the work by the deadline.
3. The OCD has indeed cleared the 12 acres north of county road 3100. The property in question is the strip of land south of CR3100 between the county road and IES's current facility as described in the letter which has been attached to this email.
4. OCD does not, and did not in this case, suggest any specific third-party contractor to complete the sampling. It is your choice.
5. If the strip of land described in item #3 above is what you are referring to as the "staging area", then it is this area that must be sampled and analyzed. It must be proven to OCD's satisfaction that there has never been any contaminated material on this property.
6. The Farmington/Gallup Federal Savings Bank contacted me concerning the letter that was sent to you. They requested a copy of the letter, and because it is a matter of public record, that copy was provided to them.
7. OCD has no intention of releasing the bond until it is proven, to OCD's satisfaction, that no further remediation activities will be necessary at the site in question.

If you have any further questions, do not hesitate to contact me.

Ed Martin
NMOCD
1220 S. St. Francis
Santa Fe, NM 87505
PH: (505) 476-3492
FA: (505) 476-3462
email: ed.martin@state.nm.us
Cell: (505) 690-0894

Martin, Ed

From: Phil Nobis [phil@instreem.net]
Sent: Tuesday, May 24, 2005 8:24 AM
To: emartin@state.nm.us
Subject: Tierra Landfarm Testing Issues

Ed:

It has come to my attention that the OCD has sent a letter re: final testing on the Tierra Landfarm on Crouch Mesa in San Juan County. I have not seen the letter. It had gone to my X-Wife's address. She told me telephonically what it said but claims that since that time she has not been able to find it.

One issue that needs to be addressed immediately is that my X had told me that OCD had given a deadline of the 28th of this month. First of all I have been in the VA Hospital in Salt Lake City, UT for a month and a half. Therefore there is no way any testing will be completed by the 28th. I am in the process of selling the property and permit to Industrial Eco Systems which I was lead to believe would do any required testing. The material that was on the property in question eg. the upper approximately 12 acres (the piece north of the new CR 3100 of approximately four acres) has already been cleared by OCD. If you can not find the information in Martynes file, I can send you a copy thereof or you can get one from Foust. That portion will not be included in the sale to Industrial Eco Systems and obviously doesn't require any additional testing. My X also informed me that you included in the letter a required testing protocol eg "extensive testing" and a map indicating what you were requiring. Again I have not seen it. The area in question should not be required to under go any testing that wasn't required on the portion already cleared by OCD. I don't know what the letter says. She also told me you are requiring a third party to conduct any testing. That's not a problem. It will be Sterns Enterprises of Aztec, NM, and not a company of OCD's preference. But understand we are not testing for any final closure. The permit is valuable and therefore is a necessary part of the proposed transaction with Industrial Eco Systems. Additionally that there has been no contaminated soil on that piece of land for at least two years. If you will look in Martynes file you will see that it did pass two years ago. Therefore they should be no reason to suspect that it's any more contaminated now than then. You also had mentioned to me sometime ago that the staging area needed work. There has never been any contamination on the staging area. OCD files in Aztec and my files can easily reflect that fact. The equipment and facilities located within the staging area, including plastic pipe and a shed belong to me and will be moved off the property should Industrial Eco Systems request that upon completion of the sale.

I also have learned that you have been in contact with Farmington/Gallup Federal Savings Bank concerning the remaining portion of the landfarm. I attended a Court Hearing in Gallup last Thursday (got home Wednesday at 10 pm, from the VA) concerning a proposed foreclosure on my previous home and property on Rd 5285 in San Juan County. That property has nothing to do with it and therefore does not concern OCD. Whatever liens etc. may exist on Tierra Environmental Company, is not legally the concern of OCD. OCD is secured by a $ 33,000 bond with Citizens Bank in Farmington should the OCD end up having to perform any remediation on the remaining portion of the landfarm and there isn't any. Upon completion of the sale of the property and transfer of the permit to Industrial Eco Systems, OCD will be required to immediately release any claim on that bond.

I have enjoyed an excellent relationship with OCD since 1992. I intend to keep it that way. Please E-mail me or mail a copy of the letter from you to Tierra so that I may review and understand it. But to reiterate, no testing will be completed by the 28th therefore I need an extension. Your Aztec office is well aware of my divorce and has my cell phone number listed below. Also your office in Santa Fe has my E-mail address. To date I have received no phone call nor any E-mail (which is the manner with which I have conducted business with OCD in the past) re: the testing requirements, no response request etc.

Phil Nobis
505-632-0463
505-860-5872 Cell
phil@instreem.net
P.O. Box 566

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

April 20, 2005

Mr. Phillip C. Nobis
Tierra Environmental Co., Inc.
P.O. Box 1812
Bloomfield, NM 87413

Re: Final Closure of Tierra Landfarm Permit #NM-01-0010A
NW/4 SE/4 of Section 2, Township 29 North, Range 12 West
San Juan County New Mexico

Dear Mr. Nobis:

To obtain final closure of the above facility, certain activities remain to be completed. In a letter from you to Ms. Martyne Kieling, dated November 13, 2003, you stated that the "remaining 12 acres located north of the Industrial Eco Systems (IES) landfarm is being remediated by IES who are our contractor." To date, the New Mexico Oil Conservation Division (NMOCD) has not received any results of the testing of soil samples within these 12 acres. This area is the portion of Tierra's landfarm that lies south of the new county road and north of the landfarm currently operated by IES. Extensive sampling of the area will be required. Refer to the rough drawing attached for sampling points. Tierra is to conduct the sampling for final closure as follows:

1. Samples must be tested for TPH, BTEX, major cations and anions, and RCRA metals.
2. Denny Foust of the NMOCD office in Aztec must be notified 48 hours in advance of any sampling event.
3. Sampling must be done by a third part contractor.
4. Sampling must be completed by May 21, 2005.

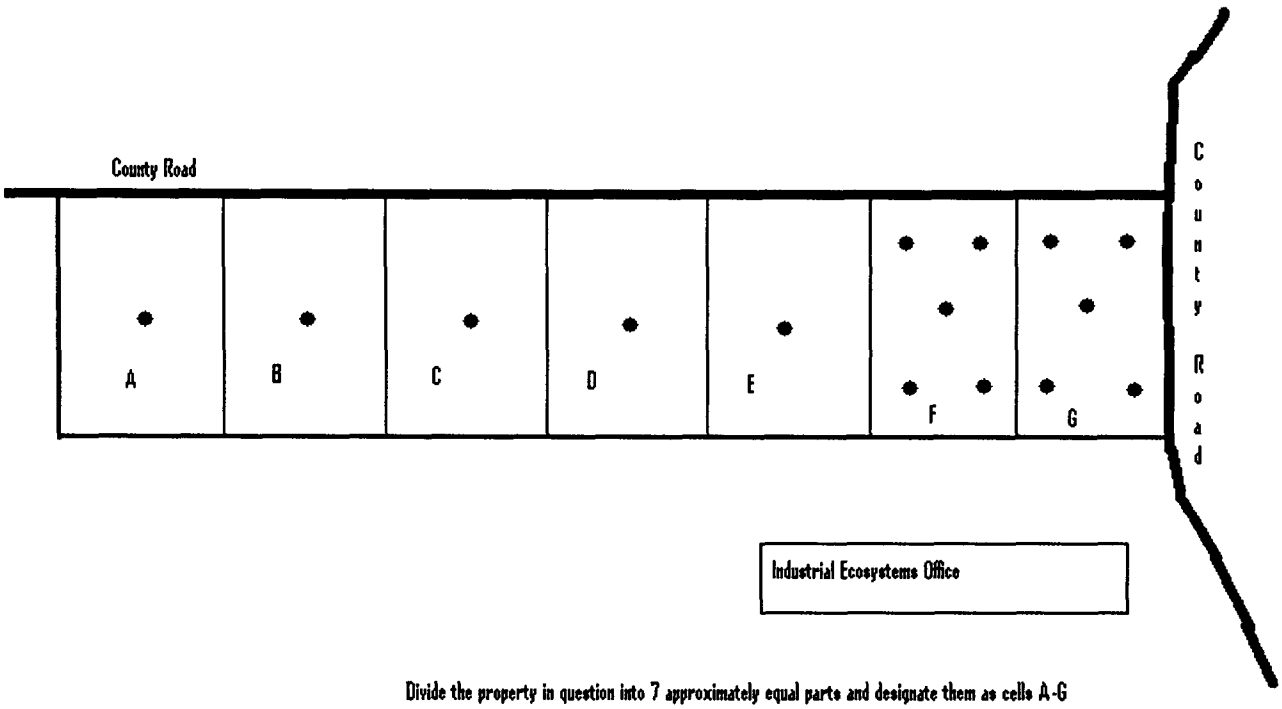
If you have any questions, contact me at (505) 476-3492 or emartin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Ed Martin

Edwin E. Martin
Environmental Bureau

Cc: NMOCD, Aztec, Denny Foust



Divide the property in question into 7 approximately equal parts and designate them as cells A-G as shown above.

● SAMPLE LOCATIONS

Take on sample from the centers of each of the 5 eastern parts (A - E)
Take five "5-spot" samples from each of the 2 western parts (F - G) (see above)

As samples are taken, they must be identified as to cell ID and, in the case of the 5-spot samples taken in cells F and G, specific localton within the cesll must be identified, e.g. F-NE, F-SW, F-NW, FSE, F-Center

N

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

April 23, 2002

CERTIFIED MAIL
RETURN RECEIPT NO. 7001-1940-0004-7923-4115

Mr. Jeremy J. Bath
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401-5250

RE: Approval To Recycle Soil

Dear Mr. Bath:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of April 2, 2002 and has reviewed the analytical data concerning remediated soils within Cell-G1, Cell-G2, Cell-G3 and Cell-G4. Tierra's request to recycle soil from Job #96033 located in Cell-G1 and Job #97023 located in Cell-G2 are hereby approved with the following recycling uses:

1. Solidifying liquid BS&W tank bottoms for landfarming at Tierra.

Application of these soils in the approved project listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-2S and Cell-3S for any other use than those approved here separate OCD authorization must be granted. Please be advised that OCD approval does not relieve Tierra of liability should their operation result in pollution of the ground water, surface water or the environment. In addition, OCD approval does not relieve Tierra of the responsibility for compliance with other federal state and/or local regulations.

If you have any further questions please do not hesitate to contact me at (505) 476-3488.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

RECEIVED
APR 0 8 2002
Environmental Bureau
Oil Conservation Division

T.E.C.I.

TIERRA ENVIRONMENTAL COMPANY, INC.

To: **Martyne Kieling**
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87504

From: **Jeremy J. Bath**

Date: **April 2, 2002**

Dear Ms. Kieling,

The purpose of this letter is to formally request permission for the Tierra Environmental Co., Inc. Land farm facility to recycle remediated soil. If approved, it is our intent to use the soil for the purpose of solidifying the liquid waste (BS & W) that is received by the Land farm.

Attached are the analytical results from four (4) lab tests performed. Two of the samples tested under the 100-ppm limit. The other two are very close to the limit and will hopefully suffice as solidification material. The soil was tested for Total Petroleum Hydrocarbons (TPH) using EPA Method 8015B, and Benzene, Toluene, Ethylbenzene, Xylene (BTEX) using EPA Methods 5030B and 8021B pursuant to our permit. Also attached is a map of the Cells where the soil samples were extracted.

If you require any additional information, please do not hesitate to call me at (505) 632-3005 or the Land farm facility at (505) 334-8894.

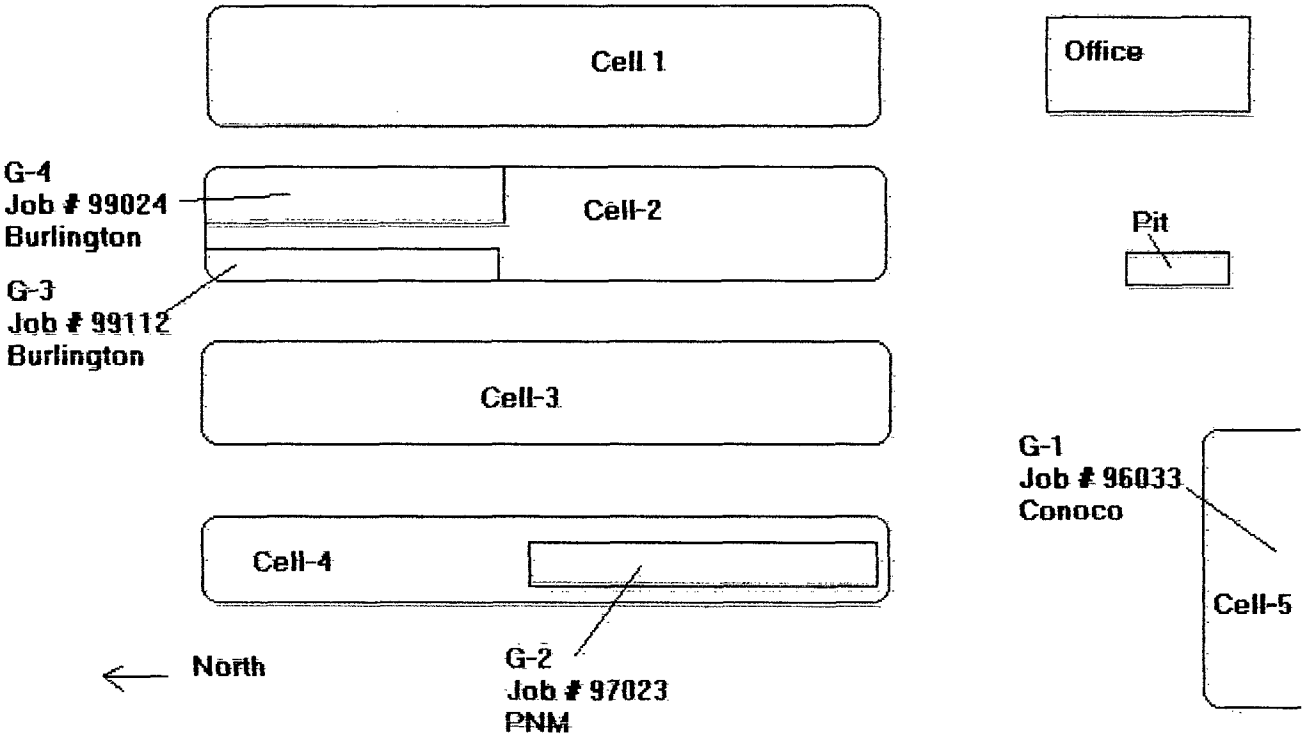
Sincerely,

Jeremy J. Bath
Environmental Specialist

P.O. Box 1812
Bloomfield, New Mexico 87413

Phone: 505-632-3005
Fax: 505-632-2815
Email: lnStreem@technet.nm.net

TIERRA LAND FARM SOIL TEST MAP
(N.T.S.)



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 1	Date Reported:	03-25-02
Laboratory Number:	22352	Date Sampled:	03-21-02
Chain of Custody No:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Extracted:	03-25-02
Preservative:	Cool	Date Analyzed:	03-25-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**21.2**	**0.1**
Total Petroleum Hydrocarbons	**21.2**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 2	Date Reported:	03-25-02
Laboratory Number:	22353	Date Sampled:	03-21-02
Chain of Custody No:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Extracted:	03-25-02
Preservative:	Cool	Date Analyzed:	03-25-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**4.1**	**0.1**
Total Petroleum Hydrocarbons	**4.1**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 3	Date Reported:	03-25-02
Laboratory Number:	22354	Date Sampled:	03-21-02
Chain of Custody No:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Extracted:	03-25-02
Preservative:	Cool	Date Analyzed:	03-25-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**102**	**0.1**
Total Petroleum Hydrocarbons	**102**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 4	Date Reported:	03-25-02
Laboratory Number:	22355	Date Sampled:	03-21-02
Chain of Custody No:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Extracted:	03-25-02
Preservative:	Cool	Date Analyzed:	03-25-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**111**	**0.1**
Total Petroleum Hydrocarbons	**111**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-25-TPH QA/QC	Date Reported:	03-25-02
Laboratory Number:	22352	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-25-02
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	**0.10%**	**0 - 15%**
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	**0.20%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**21.2**	**21.1**	**0.5%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**249**	**99.5%**	**75 - 125%**
Diesel Range C10 - C28	**21.2**	**250**	**270**	**99.5%**	**75 - 125%**

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: **QA/QC for samples 22352 - 22356 and 22363 - 22367.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 1	Date Reported:	03-25-02
Laboratory Number:	22352	Date Sampled:	03-21-02
Chain of Custody:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Analyzed:	03-25-02
Preservative:	Cool	Date Extracted:	03-25-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 2	Date Reported:	03-25-02
Laboratory Number:	22353	Date Sampled:	03-21-02
Chain of Custody:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Analyzed:	03-25-02
Preservative:	Cool	Date Extracted:	03-25-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**27.8**	**1.8**
Toluene	**18.4**	**1.7**
Ethylbenzene	**4.9**	**1.5**
p,m-Xylene	**17.2**	**2.2**
o-Xylene	**11.0**	**1.0**
Total BTEX	**79.3**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**97 %**
	1,4-difluorobenzene	**97 %**
	Bromochlorobenzene	**97 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 3	Date Reported:	03-25-02
Laboratory Number:	22354	Date Sampled:	03-21-02
Chain of Custody:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Analyzed:	03-25-02
Preservative:	Cool	Date Extracted:	03-25-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**13.9**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**52.4**	**2.2**
o-Xylene	**11.3**	**1.0**
Total BTEX	**77.6**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**97 %**
	1,4-difluorobenzene	**97 %**
	Bromochlorobenzene	**97 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-003
Sample ID:	G - 4	Date Reported:	03-25-02
Laboratory Number:	22355	Date Sampled:	03-21-02
Chain of Custody:	9870	Date Received:	03-21-02
Sample Matrix:	Soil	Date Analyzed:	03-25-02
Preservative:	Cool	Date Extracted:	03-25-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**97 %**
	1,4-difluorobenzene	**97 %**
	Bromochlorobenzene	**97 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-25-BTEX QA/QC	Date Reported:	03-25-02
Laboratory Number:	22352	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-25-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	6.9839E-002	7.0049E-002	**0.3%**	**ND**	**0.2**
Toluene	5.0724E-002	5.0825E-002	**0.2%**	**ND**	**0.2**
Ethylbenzene	8.2086E-002	8.2333E-002	**0.3%**	**ND**	**0.2**
p,m-Xylene	7.1064E-002	7.1278E-002	**0.3%**	**ND**	**0.2**
o-Xylene	6.2661E-002	6.2787E-002	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.8**
Toluene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.7**
Ethylbenzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.5**
p,m-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**2.2**
o-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.0**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	**ND**	**50.0**	**49.8**	**99.6%**	**39 - 150**
Toluene	**ND**	**50.0**	**49.9**	**99.8%**	**46 - 148**
Ethylbenzene	**ND**	**50.0**	**49.9**	**99.8%**	**32 - 160**
p,m-Xylene	**ND**	**100**	**99.6**	**99.6%**	**46 - 148**
o-Xylene	**ND**	**50.0**	**49.9**	**99.8%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples 22352 - 22356 and 22363 - 22366.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

09870

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Tierra Environmenta		
Sampler:	Client No. 94074-003	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8015 TPH	BETX					Remarks
G-1	03/21/02	02:15	22352	Soil	1	✓	✓					
G-2	"	2:20	22353	"	1	✓	✓					
G-3	"	2:25	22354	"	1	✓	✓					
G-4	"	2:30	22355	"	1	✓	✓					
G-5	"	2:35	22356	"	1	✓	✓					

	Date	Time		Date	Time
Relinquished by: (Signature)	03/21	15:00	Received by: (Signature)	5/1/02	1500
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 20, 2002

CERTIFIED MAIL
RETURN RECEIPT NO. 7001 1940 0004 7923 3910

Mr. Jeremy J. Bath
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401-5250

RE: Approval To Recycle Soil

Dear Mr. Bath:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of March 21, 2002 and has reviewed the analytical data concerning remediated soils within Cell-2S, Cell-3S, Cell-4S and Cell 5S. Tierra's request to recycle soil from Job #94022 located in Cell-2S, Job #99032 located in Cell-3S, Job #99105 located in Cell-4S and Job #98085 located in Cell-5S are hereby approved with the following recycling uses:

1. Solidifying liquid BS&W tank bottoms for landfarming at Tierra.

Application of these soils in the approved project listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-2S, Cell-3S, Cell-4S and Cell 5S for any other use than those approved here separate OCD authorization must be granted. Please be advised that OCD approval does not relieve Tierra of liability should their operation result in pollution of the ground water, surface water or the environment. In addition, OCD approval does not relieve Tierra of the responsibility for compliance with other federal state and/or local regulations.

If you have any further questions please do not hesitate to contact me at (505) 476-3488.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY, INC.

To: **Martyne Kieling**
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87504

From: **Jeremy J. Bath**

Date: **March 21, 2002**

Dear Ms. Kieling,

The purpose of this letter is to formally request permission for the Tierra Environmental Co., Inc. Land farm facility to recycle remediated soil. If approved, it is our intent to use the soil for the purpose of solidifying the liquid waste (BS & W) that is received by the Land farm.

Attached are the analytical results from four (4) lab tests performed that tested under the 100-ppm limit. The soil was tested for Total Petroleum Hydrocarbons (TPH) using EPA Method 8015B, and Benzene, Toluene, Ethylbenzene, Xylene (BTEX) using EPA Methods 5030B and 8021B pursuant to our permit. Also attached is a map of the Cells where the soil samples were extracted.

If you require any additional information, please do not hesitate to call me at (505) 632-3005 or the Land farm facility at (505) 334-8894.

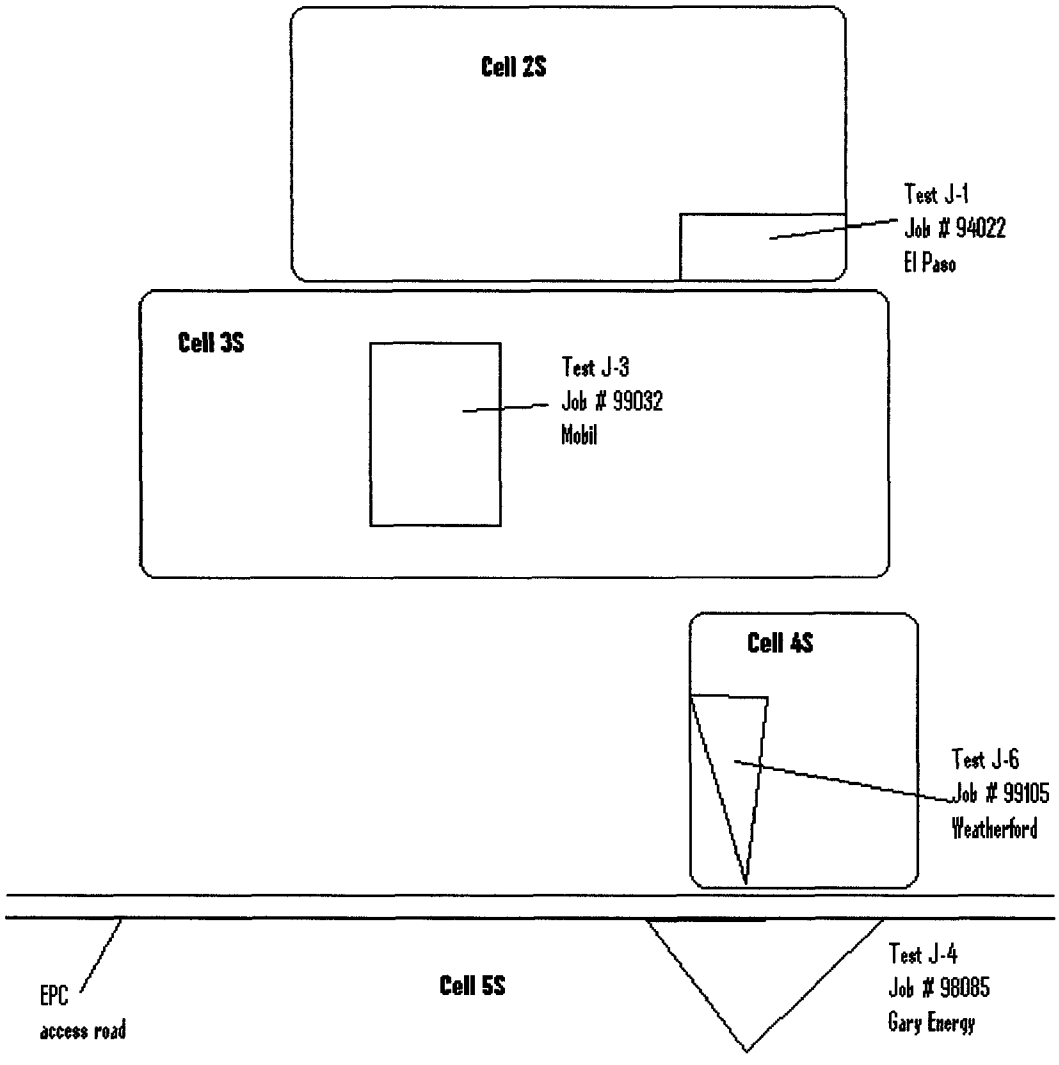
Sincerely,

Jeremy J. Bath
Environmental Specialist

P.O. Box 1812
Bloomfield, New Mexico 87413

Phone: 505-632-3005
Fax: 505-632-2815
Email: lnStreem@technet.nm.net

Land Farm Soil Test Map
(NTS)



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 1	Date Reported:	03-15-02
Laboratory Number:	22277	Date Sampled:	03-13-02
Chain of Custody No:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Extracted:	03-14-02
Preservative:	Cool	Date Analyzed:	03-15-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 3	Date Reported:	03-15-02
Laboratory Number:	22278	Date Sampled:	03-13-02
Chain of Custody No:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Extracted:	03-14-02
Preservative:	Cool	Date Analyzed:	03-15-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 4	Date Reported:	03-15-02
Laboratory Number:	22279	Date Sampled:	03-13-02
Chain of Custody No:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Extracted:	03-14-02
Preservative:	Cool	Date Analyzed:	03-15-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 6	Date Reported:	03-15-02
Laboratory Number:	22280	Date Sampled:	03-13-02
Chain of Custody No:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Extracted:	03-14-02
Preservative:	Cool	Date Analyzed:	03-15-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-15-TPH QA/QC	Date Reported:	03-15-02
Laboratory Number:	22274	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-15-02
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	**0.10%**	**0 - 15%**
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	**0.20%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**15.0**	**15.0**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**24.0**	**24.0**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**15.0**	**250**	**263**	**99.3%**	**75 - 125%**
Diesel Range C10 - C28	**24.0**	**250**	**272**	**99.3%**	**75 - 125%**

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: **QA/QC for samples 22274 - 22280.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 1	Date Reported:	03-15-02
Laboratory Number:	22277	Date Sampled:	03-13-02
Chain of Custody:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Analyzed:	03-15-02
Preservative:	Cool	Date Extracted:	03-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**95 %**
	1,4-difluorobenzene	**95 %**
	Bromochlorobenzene	**95 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 3	Date Reported:	03-15-02
Laboratory Number:	22278	Date Sampled:	03-13-02
Chain of Custody:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Analyzed:	03-15-02
Preservative:	Cool	Date Extracted:	03-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**7.4**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**7.4**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**95 %**
	1,4-difluorobenzene	**95 %**
	Bromochlorobenzene	**95 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 4	Date Reported:	03-15-02
Laboratory Number:	22279	Date Sampled:	03-13-02
Chain of Custody:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Analyzed:	03-15-02
Preservative:	Cool	Date Extracted:	03-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**95 %**
	1,4-difluorobenzene	**95 %**
	Bromochlorobenzene	**95 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	94074-030
Sample ID:	J - 6	Date Reported:	03-15-02
Laboratory Number:	22280	Date Sampled:	03-13-02
Chain of Custody:	9849	Date Received:	03-13-02
Sample Matrix:	Soil	Date Analyzed:	03-15-02
Preservative:	Cool	Date Extracted:	03-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-15-BTEX QA/QC	Date Reported:	03-15-02
Laboratory Number:	22277	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-15-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	6.9839E-002	7.0049E-002	**0.3%**	**ND**	**0.2**
Toluene	5.0724E-002	5.0825E-002	**0.2%**	**ND**	**0.2**
Ethylbenzene	8.2086E-002	8.2333E-002	**0.3%**	**ND**	**0.2**
p,m-Xylene	7.1064E-002	7.1278E-002	**0.3%**	**ND**	**0.2**
o-Xylene	6.2661E-002	6.2787E-002	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.8**
Toluene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.7**
Ethylbenzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.5**
p,m-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**2.2**
o-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.0**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	**ND**	**50.0**	**49.9**	**99.8%**	**39 - 150**
Toluene	**ND**	**50.0**	**49.9**	**99.8%**	**46 - 148**
Ethylbenzene	**ND**	**50.0**	**49.9**	**99.8%**	**32 - 160**
p,m-Xylene	**ND**	**100**	**99.7**	**99.7%**	**46 - 148**
o-Xylene	**ND**	**50.0**	**49.9**	**99.8%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for sample 22276 - 22280.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

09849

Client / Project Name: Tierra Environmental

Project Location:

Sampler: Jon Nobis

Client No.: 94074-030

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	B-TEX	8015 TPH					Remarks
J-1	03-13-02	12:18	22277	Soil	1	✓	✓					
~~J-2~~	~~"~~	~~12:21~~		~~"~~	~~1~~	~~✓~~	~~✓~~					3-13-02 Cancelled w/ Jon Nobis by phone
J-3	"	12:16	22278	"	1	✓	✓					
J-4	"	12:29	22279	"	1	✓	✓					
J-6	"	12:31	22280	"	1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	03-13-02	12:54	[signature]	3/13/02	1254
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 20, 2002

CERTIFIED MAIL
RETURN RECEIPT NO. 7001 1940 0004 7923 3859

Mr. Jeremy J. Bath
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401-5250

RE: Approval To Recycle Soil

Dear Mr. Bath:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of March 11, 2002 and has reviewed the analytical data concerning remediated soils within Cell-2 and Cell 6. Tierra's request to recycle soil from Job #99153 and #99141 located in Cell-2 and Job #95022 located in Cell-6 is hereby approved with the following recycling uses:

1. Solidifying liquid BS&W tank bottoms for landfarming at Tierra.

Application of these soils in the approved project listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-2 and Cell-6 for any other use than those approved here separate OCD authorization must be granted. Please be advised that OCD approval does not relieve Tierra of liability should their operation result in pollution of the ground water, surface water of the environment. In addition, OCD approval does not relieve Tierra of the responsibility for compliance with other federal state and/or local regulations.

If you have any further questions please do not hesitate to contact me at (505) 476-3488.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

RECEIVED
MAR 18 2002
Environmental Bureau
Oil Conservation Division

T.E.C.I.

TIERRA ENVIRONMENTAL COMPANY, INC.

To: Martyne Kieling
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87504

From: Jeremy J. Bath

Date: March 11, 2002

Dear Ms. Kieling,

The purpose of this letter is to formally request permission for the Tierra Environmental Co., Inc. Land farm facility to recycle remediated soil. If approved, it is our intent to use the soil for the purpose of solidifying the liquid waste (BS & W) that is received by the Land farm.

Attached are the analytical results from three (3) lab tests performed that tested under the 100-ppm limit. The soil was tested for Total Petroleum Hydrocarbons (TPH) using EPA Method 8015B, and Benzene, Toluene, Ethylbenzene, Xylene (BTEX) using EPA Methods 5030B and 8021B pursuant to our permit. Also attached is a map of the Cells where the soil samples were extracted.

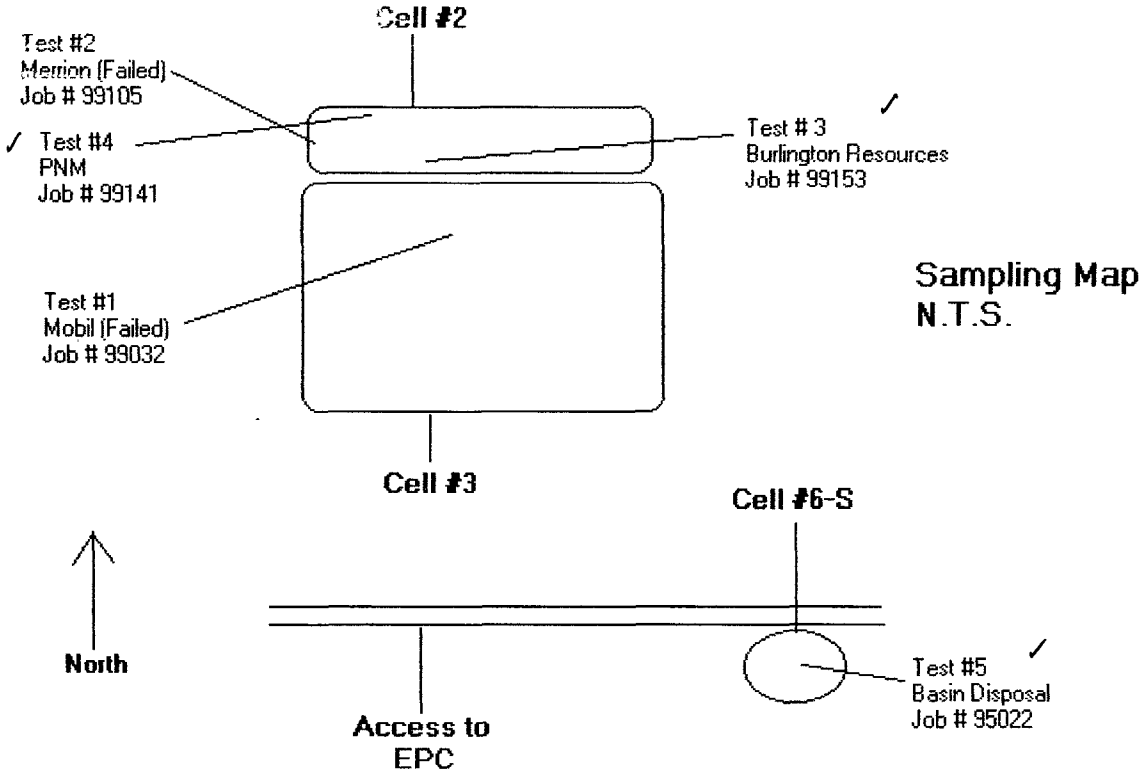
If you require any additional information, please do not hesitate to call me at (505) 632-3005 or the Land farm facility at (505) 334-8894.

Sincerely,

P.O. Box 1812
Bloomfield, New Mexico 87413

Jeremy J. Bath
Environmental Specialist

Phone: 505-632-3005
Fax: 505-632-2815
Email: InStreem@technet.nm.net



Sampling Map
N.T.S.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #3	Date Reported:	03-05-02
Laboratory Number:	22155	Date Sampled:	02-27-02
Chain of Custody No:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Extracted:	03-04-02
Preservative:	Cool	Date Analyzed:	03-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**35.3**	**0.1**
Total Petroleum Hydrocarbons	**35.3**	**0.2**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #3	Date Reported:	03-05-02
Laboratory Number:	22155	Date Sampled:	02-27-02
Chain of Custody:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Analyzed:	03-05-02
Preservative:	Cool	Date Extracted:	03-04-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**14.9**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**14.9**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**95 %**
	1,4-difluorobenzene	**95 %**
	Bromochlorobenzene	**95 %**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #4	Date Reported:	03-05-02
Laboratory Number:	22156	Date Sampled:	02-27-02
Chain of Custody No:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Extracted:	03-04-02
Preservative:	Cool	Date Analyzed:	03-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #4	Date Reported:	03-05-02
Laboratory Number:	22156	Date Sampled:	02-27-02
Chain of Custody:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Analyzed:	03-05-02
Preservative:	Cool	Date Extracted:	03-04-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**28.6**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**28.6**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #5	Date Reported:	03-05-02
Laboratory Number:	22157	Date Sampled:	02-27-02
Chain of Custody No:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Extracted:	03-04-02
Preservative:	Cool	Date Analyzed:	03-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**28.2**	**0.1**
Total Petroleum Hydrocarbons	**28.2**	**0.2**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co., Inc.	Project #:	94074-003
Sample ID:	Test #5	Date Reported:	03-05-02
Laboratory Number:	22157	Date Sampled:	02-27-02
Chain of Custody:	8941	Date Received:	02-27-02
Sample Matrix:	Soil	Date Analyzed:	03-05-02
Preservative:	Cool	Date Extracted:	03-04-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96 %**
	1,4-difluorobenzene	**96 %**
	Bromochlorobenzene	**96 %**

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: **Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-05-TPH QA/QC	Date Reported:	03-05-02
Laboratory Number:	22153	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-05-02
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	**0.10%**	**0 - 15%**
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	**0.20%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**794**	**792**	**0.3%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**250**	**100.0%**	**75 - 125%**
Diesel Range C10 - C28	**794**	**250**	**1,040**	**99.6%**	**75 - 125%**

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: **QA/QC for samples 22153 - 22157 and 22173 - 22176.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-05-BTEX QA/QC	Date Reported:	03-05-02
Laboratory Number:	22153	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-05-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.7143E-001	1.7195E-001	**0.3%**	**ND**	**0.2**
Toluene	9.4693E-002	9.4883E-002	**0.2%**	**ND**	**0.2**
Ethylbenzene	1.2284E-001	1.2321E-001	**0.3%**	**ND**	**0.2**
p,m-Xylene	1.0810E-001	1.0843E-001	**0.3%**	**ND**	**0.2**
o-Xylene	9.2106E-002	9.2290E-002	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.8**
Toluene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.7**
Ethylbenzene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.5**
p,m-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**2.2**
o-Xylene	**ND**	**ND**	**0.0%**	**0 - 30%**	**1.0**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	**ND**	**50.0**	**49.8**	**99.6%**	**39 - 150**
Toluene	**ND**	**50.0**	**49.8**	**99.6%**	**46 - 148**
Ethylbenzene	**ND**	**50.0**	**49.8**	**99.6%**	**32 - 160**
p,m-Xylene	**ND**	**100**	**100**	**100.0%**	**46 - 148**
o-Xylene	**ND**	**50.0**	**49.8**	**99.6%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples 22153 - 22157 and 22173 - 22176.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

08941

Client / Project Name: Tierra Environmental Co., Inc

Project Location: Land Farm

Sampler:

Client No.: 94074-003

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH 8015	BTEX BTEX					Remarks
Test #1	2/27/02	11:47A	22153	Soil	1	✓	✓					
Test #2	"	11:56A	22154		1	✓	✓					
Test #3	"	11:55A	22155		1	✓	✓					
Test #4	"	11:45A	22156		1	✓	✓					
Test #5	"	12:02P	22157		1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Jeremy J. Bath	2/27/02	12:35P	[signature]	2.27.02	12:35
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

83137

TIERRA ENVIRONMENTAL CO., INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401

AUG 23

August 22, 2000

Ms. Martyne J. Kieling
Environmental Geologist
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: INSPECTION REPORT

Dear Ms. Kieling:

Tierra Environmental is in receipt of your inspection report dated August 16, 2000, regarding the inspection performed by you on May 17, 2000.

Item 4 Some cells had not been spread and disked according to the permit requirement.

Tierra has developed a plan that was in effect at the time of the inspection to be able to comply with this requirement. Loads will be delivered and will be spread by the dump trucks when possible. Heavy moist loads will not be piled closely together, enabling equipment to move between the piles for spreading purposes. Tierra has also recently purchased a new to us front-end loader. It is smaller than our Case W-30 and therefore more agile. The bucket has long sharp teeth, which we use to further spread material prior to tilling. We also still have the W-30. Therefore we can do a lot more work. (That's the plan)

Item 6 Plastic in some cells

The cell to which you refer is full of plastic beneath the surface. Every time it is tilled, more plastic surfaces. It is picked up after tilling. It was tilled shortly prior to inspection. A new Tierra Environmental rule has been adopted wherein any load containing excessive plastic is charged an additional $ 2.00 per cubic yard as a penalty. (We haven't received a lot of plastic lately)

PHONE: 505-334-8894
FAX: 505-334-9024
teci@cyberport.com

Item 10

All empty drums were stored on their sides with the bungs out at the time of inspection. The two drums along side of them in the bermed area contained used motor oil from our loader. It is picked up by D&D Oil Recyclers on a regular basis. Those barrels are now marked.

Item 12 Marking of Tanks, containers and drums.

All tanks were marked at the time of the inspection. All drums and containers with the exception of the two mentioned in item 10 were marked.

Item 15 I would like a clarification on the term to be tilled immediately following each consequential rainstorm. It is humanly impossible to even get onto the landfarm immediately (like the next day) following any rainstorm.

Item 18 Inspection Reports

Ok I'm still confused. The quarterly reports as I understand it, are to be kept on file by me for your inspection and you did inspect them. But please find a copy enclosed from September 1999. The Annual report is due now and I will forward a copy to you as soon as I receive the results.

Item 19 Signed Permit Copy

Enclosed please find another signed copy.

We did receive the new bond forms today. They will most likely follow this letter within the next day or so.

I have also acquired four smaller tanks. Three are 150 bbl and the other is a 250.
All are portable with rails on the side. I want the ability to move them around as needed, especially for cleaning purposes. My intention is to put them in a bermed area adjacent to the cement impoundment and dispose of all of the 400-bbl rental tanks that I have. Presently all of the new tanks are empty with the manways off. I will await your instructions.

Please call me if you have any questions or need additional information.

Sincerely,

Phillip C. Nobis
President

QUARTERLY LANDFARM SUB-SURFACE TESTING REPORT

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401
Phone 505-334-8894 Fax 505-334-9024
E-mail teci@cyberport.com

Date: March 31, 2000

TPH Method - HNU 2000
BTEX Method – Thermo-Environmental 580 B OVM

CELL	TPH	BTEX
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0

By: _____

QUARTERLY LANDFARM SUB-SURFACE TESTING REPORT

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401
Phone 505-334-8894 Fax 505-334-9024
E-mail teci@cyberport.com

Date: December 15, 1999

TPH Method - HNU 2000
BTEX Method – Thermo-Environmental 580 B OVM

CELL	TPH	BTEX
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0

By: _____

QUARTERLY LANDFARM SUB-SURFACE TESTING REPORT

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401
Phone 505-334-8894 Fax 505-334-9024
E-mail teci@cyberport.com

Date: September 21, 1999

TPH Method - HNU 2000
BTEX Method – Thermo-Environmental 580 B OVM

CELL	TPH	BTEX
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0

By: _____

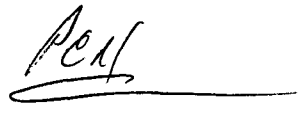
QUARTERLY LANDFARM SUB-SURFACE TESTING REPORT

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401
Phone 505-334-8894 Fax 505-334-9024
E-mail teci@cyberport.com

Date: 7/25/2000

TPH Method – HNU 2000
BTEX Method – Thermo Environmental 580 B OVM

CELL	TPH	BTEX
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

August 16, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 7099-3220-000-5051-1033

Mr. Philip C. Nobis
Tierra Environmental Company, Inc.
PO Drawer 15250
Farmington, New Mexico 87401-5250

RE: Surface Waste Management Facility Inspection Report: Permit NM-01-0010
Tierra Environmental Company, Inc.
NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM,
San Juan County, New Mexico

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) inspected the Tierra Environmental Company, Inc. (Tierra) surface waste management facility at the above location on May 17, 2000.

Overall the OCD found Tierra to have a well-maintained landfarm with good security. The OCD inspection and file review of Tier indicates some permit deficiencies. Attachment 1 lists the permit deficiencies found at Tierra during the inspection and file review. Attachment 2 contains photographs taken during the inspection. Tierra shall provide OCD with a detailed description of how the corrections will be made and a timetable of when each of the corrections will be completed. Tierra must respond to the permit deficiencies by September 18, 2000.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office

ATTACHMENT 1
INSPECTION REPORT
PERMIT NM-01-0010
TIERRA ENVIRONMENTAL, INC.
NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM,
San Juan County, New Mexico
(August 16, 2000)

1. Fencing and Signs: The facility will be fenced and have a sign at the entrance. The sign shall be maintained in good condition and shall be legible from at least fifty (50) feet and contain the following information: a) name of facility, b) location by section, township and range, and c) emergency phone number.

   Facility is secured with fence and locking gate and has a sign at the entrance.

2. Berming: An adequate berm will be constructed and maintained to prevent runoff and runon for that portion of the facility containing contaminated soils.

   Cell berms are in good shape and well maintained

3. Setbacks: All new landfarm facilities or modifications to existing landfarm facilities must have a setbacks along the facility boundary and along any pipelines crossing the landfarm. No contaminated soils will be placed within one-hundred (100) feet of the boundary of the facility. No contaminated soil will be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment will be operated within ten (10) feet of a pipeline. All pipelines crossing the facility will have surface markers identifying the location of the pipelines.

   The facility set backs are maintained.

4. Soil Spreading, Disking and Lift Thickness: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in ten inch lifts or less. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

   At the time of inspection, soils in some cells had not been spread and disked accordingly (see photos 1 and 2). Loads that are received must spread and disk to a thickness of 10 inches within 72 hours of receipt. Tierra must propose a plan to accomplish this permit condition, this may include requiring trucks to dumped thinner loads, requesting dryer loads or Tierra may need to evaluate the capacity of the equipment and personnel used to move moist heavy loads.

5. Free Liquids: No free liquids or soils with free liquids will be accepted at the facility.

No liquids were observed within the landfarm. Solidification of tank bottoms is permitted under Permit NM-01-0010 dated September 21, 1999. Liquids and sludges to be landfarmed are first solidified within a concrete trough underlain with a 30 mil HDPE liner.

6. Trash and Potentially Hazardous Materials: All trash and potentially hazardous materials should be properly disposed of.

Plastic in the landfarm cells must be picked up and disposed of properly (see photo 4).

7. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable pad within the berm so that leaks can be identified.

Above ground tanks are bermed to contain a sufficient volume.

8. Sumps and Valve Catchments: All sumps and catchments must be kept empty so that leaks can be identified and to prevent overflow onto the ground.

N/A

9. Concrete Mixing Impoundment: Adequate freeboard must be maintained to prevent any overtopping or slop over of material. Material received at the impoundment must be mixed and stabilized immediately.

The concrete mixing impoundment was in good condition.

10. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

Drums and containers should be stored on impermeable pads with curb containment. Empty drums and containers should be removed when possible or stored in a separate area on their sides with the bungs in and lined up on a horizontal plane.

All drums and chemical containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill or ignite.

11. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

There is one above ground saddle tank at the facility.

12. Tank Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

Tanks drums and containers must be clearly labeled.

13. Migratory Bird Protection: All tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered not hazardous to migratory birds.

N/A

14. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 to the appropriate OCD District Office.

At the time of inspection, there were no spills evident at this facility

15. Regular Facility Inspections: Cells must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants. Facility inspections and maintenance must be conducted on at least a biweekly basis and immediately following each consequential rainstorm or windstorm.

Not reviewed on this inspection.

16. H_2S Screening: water removed form tank bottoms and sludge must be screened for H_2S, oils, TDS, and pH.

Not reviewed on this inspection.

17. Waste Acceptance and Disposal Documentation: The records for each load must include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes moisture, fertilizers, *etc.*

Not reviewed on this inspection.

18. Quarterly Treatment Zone Monitoring: Soil samples must be analyzed quarterly for total petroleum hydrocarbons (TPH) using an approved field method. The soil samples must be analyzed annually using EPA-approved methods for TPH, BTEX, major cation/anions

and WQCC metals. Results of field and analytical testing must be submitted to the OCD within 30 days. A sample location map must be included with the analysis report.

An inspection of OCD files finds that Tierra has not submitted the required quarterly treatment zone monitoring field analysis report or annual laboratory analytical report. Tierra must submit these quarterly records for September 10, 1999 to present.

19. Permit: A signed copy of the Permit issued on September 10, 1999 has not been received by the OCD.

Tierra must sign and return a copy of this permit. For your convenience, please find enclosed a copy of the Tierra Permit.

ATTACHMENT 2
Tierra Environmental, Inc. NM-01-0010

Photo 1 05-17-00
Lift thickness is greater than 10 inches.

Photo 2 05-17-00
Lift thickness greater than 10 inches.

Photo 1 05-17-00
Landfarm

Photo 4 05-17-00
Plastic trash in landfarm.

STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

X Telephone ____ Personal Time 2:40 Date 4-24-00

Originating Party: Martyne Kieling, Roger Anderson

Other Parties: Phil Nobis

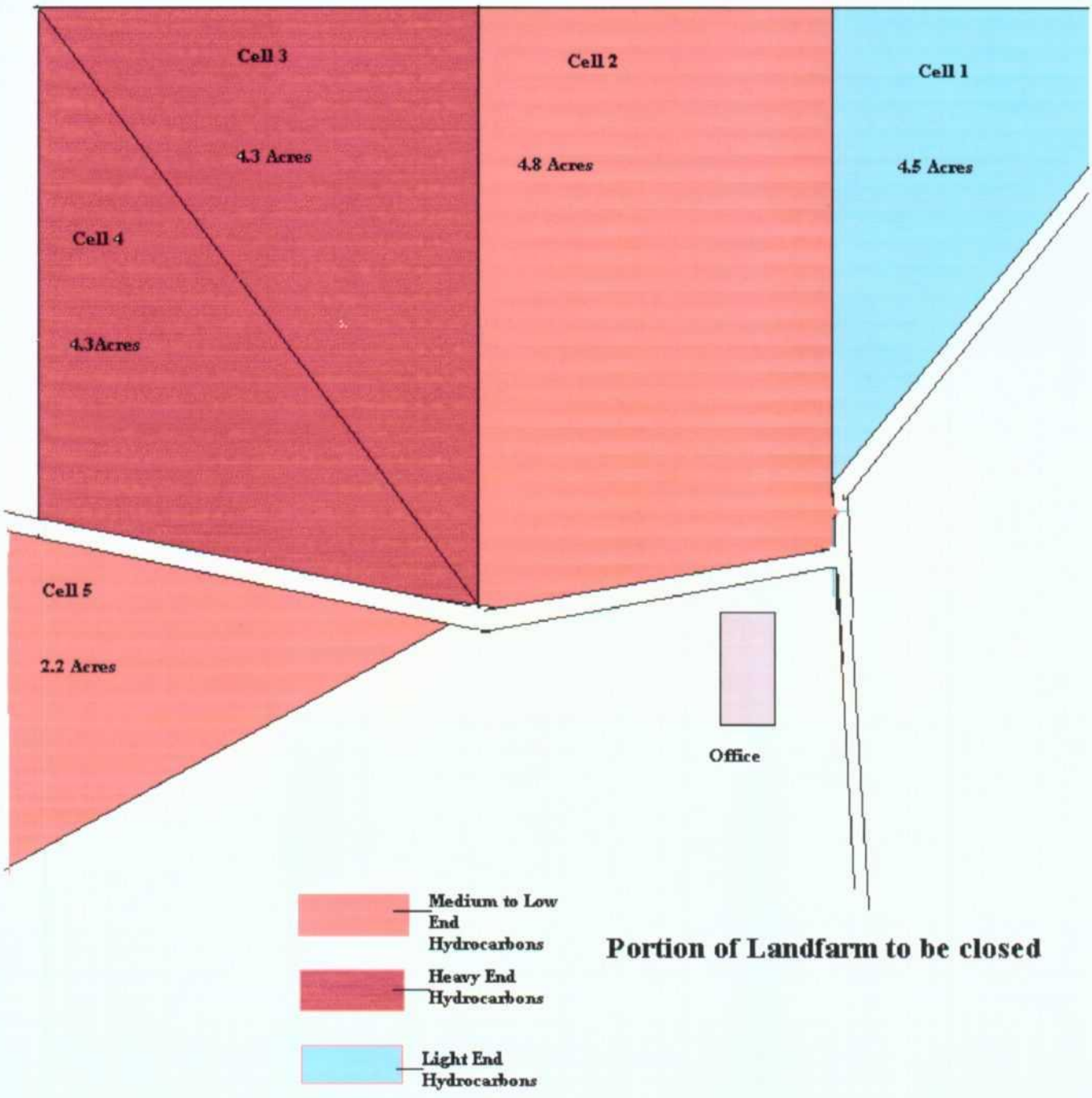
Subject: Financial Assurance within 10 Days. October 21, 1999. Copy of Bond 25,000

Discussion: Next letter NOV.

Conclusions or Agreements:

Distribution

Signed: Martyne Kieling



Portion of Landfarm to be closed

Public Regulation Commission

3/7/2000

TIERRA ENVIRONMENTAL COMPANY, INC.

MAILING ADDRESS
PO BOX 15250 FARMINGTON NEW MEXICO 87401

SCC Number: **1562495** ***Tax & Revenue Number:***

INCORPORATED ON APRIL 13, 1992 , IN NEW MEXICO.

CORPORATION IS A DOMESTIC PROFIT

CORPORATION IS ACTIVE
GOOD STANDING THROUGH: 3/15/2000

PURPOSE OF THE CORPORATION
ENVIRONMENTAL SERVICES TO OIL AND GAS

CORPORATION DATES
Taxable Year End Date: 12/31/99 Filing Date: //
Corporate Existence Expiration Date:

SUPPLEMENTAL POST MARK DATES
Supplemental: Name Change: Purpose Change:

PRINCIPAL ADDRESS
420 COUNTY RD. 3100 AZTEC NEW MEXICO 87410

PRINCIPAL ADDRESS(Outside New Mexico)

REGISTERED AGENT
PHILLIP C. NOBIS
702 MILLER ST. BLOOMFIELD NEW MEXICO 87413

Designation date: 01/23/98 Agent Post Mark Date: Resignation date:

COOP LICENSE INFORMATION
Number: Type: Expiration Year:

NOBIS, PHILLIP C. ***President***
NOBIS, DOROTHY J. ***Vice President***
NOBIS, TIM S. ***Secretary***

NONE LISTED *Treasurer*

DIRECTORS

Date Election of Directors: 12/31/00

NOBIS , TIM S
420 COUNTY RD. 3100 AZTEC , NM 87410

New Search Inquiry Page

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 10:00	Date 12-7-99
Originating Party		**Other Parties**
Marlyn		Phil Nobis

Subject Tievra Signed Copy of the Permit And Bond.

Discussion Missing Signed Copy of Permit will Look For And Send Bond is Past Due. Having Problems Finding an Insurance Agency They Mostly want 100% Financial Coverage.

Conclusions or Agreements

Phill will send Copy of Permit Signed and will work on Bond

Distribution

Check Back Jan 5th

Signed Marlyn J. Kelly

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

September 10, 1999

Ms Martyne J. Keiling, Environmental Geologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: LANDFARM PERMIT MODIFICATION

Dear Ms Kieling:

Our present permit limits the depth of soil to be spread upon the landfarm to six inches or less. We would like the new permit amended to allow for no more than ten inches. The reasons for asking to the modification are as follows:

1. A thicker lift of soil tilled properly, will retain moisture and oxygen more efficiently and for longer periods of time in our arid desert environment. The retention of moisture content at about seventeen percent and oxygen enrichment within the soil to be remediated will stimulate and keep healthy the microbial life that is present and working to reduce the hydrocarbon content, changing it from its potentially toxic form into carbon dioxide. This is especially true when heavy end hydrocarbons are present. e.g. Tank bottoms and sludges. In most available literature on the subject the recommended depth is from six to twenty-four inches. The depth is based upon the extent of the hydrocarbon contamination.

   References: Hydrocarbon Contaminated Soils, Volume II by Paul T. Kostecki, Edward J. Calabrese and Marc Bonazountas 1992, Principals and Practices for Petroleum Contaminated Soil, Calabrese and Kostecki1993.

2. The Tierra Landfarm has been in operation since February of 1993 when we received our first shipment of hydrocarbon contaminated soil. The soil was highly saturated with heavy petroleum, motor oil etc. Its source was a yard cleanup at a heavy equipment dealership and repair service. (In those days we could accept waste from other sources) The soil contained a lot of large river boulders and therefore was difficult to disc. After a month of trying to work this soil into six-inch lifts with a disc, we had made little progress with remediation. We purchased a harrow on the advise of Doctor Dan Hoover (PHD in Agronomy) then our landfarm scientist. After tilling the soil with the harrow we found that the soil

beneath the surface that we had been unable to impact with the disc had begun to degrade more that the soil on the surface. Hoover explained that the heavier lifts of soil had retained moisture and oxygen enhancing the growth of microbial life that was degrading the hydrocarbons. The soil on the surface he said was dry and unable to sustain a microbial presence. Since that first experience, we have delt with a considerable amount of heavily contaminated soil, in particular the sludges we stabilize or are stabilized before they are delivered to the landfarm. That type of material is usually somewhat sticky and too is difficult to work into six-inch lifts. We have had the same experience with the stabilized sludge. It remediates quicker when it's in a thicker lift.

We presently have the equipment capable of tilling soil to a depth of at least ten inches. And we have been doing it for several years with the same equipment. The soil is delivered in dump trucks and dumped in piles ranging from ten to twenty cubic yards. The soil is initially spread with our Case W-30 Front End Loader. The Case can't spread the material into six-inch lifts. Because it is such a large piece of equipment, when we try and spread the soil thinner it compacts it. Therefore we bring in our John Deer 4030 Tractor and the Brushog 26' Harrow. Its heavy shanks are capable of tilling to a depth of 24". We then begin to work the soil into thinner lifts. We try very hard to achieve the present six inch requirement, but we are not always successful.

Based on the preceding information I would respectfully request the permit modification to allow our landfarm to spread material in lifts of no more than ten inches, be approved.

Thank you for your cooperation and help. If you have any questions or need additional information please give me a call.

Sincerely,

Phillip C. Nobis
President

FAX TRANSMISSION

TIERRA ENVORNMENTAL COMPANY, INC.
P.O. DRAWER 15250
FARMINGTON, NM 87401
Phone 505-~~443-8894~~ Fax 505-334-9024
E-mail teci@cyberport.com
334-8894

Pages: 10

Date: September 7, 1999

To: Martyne Kieling
OCD

Fax: 505-827-8177

From: Phil Nobis

Subject: Permit

Martyne,

I'll respond to the changes I would like to see and the clarifications you had requested by the numbers.

LANDFARM OPERATION

1. OK

2. OK

3. OK

Call Tractor Blade Equipment Must turn

4. I have asked this question before and maybe not to you however. Where did OCD come up with the six-inch lift requirement? It has been our experience since 1993 that soil remediates better and faster if the lifts are at least eight to ten inches. All of the material I have read to date about landfarming contaminated soil agrees. In some cases they suggest twelve inches. The thicker soil helps retain moisture (which has not been a problem this summer) and oxygen there by helping the remediation process. I might add that it's a little difficult to spread out a job into six-inch lifts when some of the river rocks in the job are eight to ten inches around. Envirotech as an example uses or used a rock screen to remove all of the rocks prior to spreading material. It has been our experience that the rocks

when harrowed help to break up the soil better than a disc would if the rocks were removed. So I would ask that the requirement be changed to nor more than ten-inch lifts.

5. OK

6. OK

7. OK

8. OK

9. OK except rental frac tanks

10. OK

11. Another question, why does the material received at the trough have to be mixed and stabilized upon receipt? If it has an odor we treat it immediately. (A lesson learned from the notice of violation by persons no longer employed here) This requirement will change our procedure and make the process more expensive. Normally we receive sludge's that contain water from the wash out process. If the sludge is allowed to settle out the freestanding water is removed and taken to an SWD for disposal or spread on the landfarm. Sometimes we will use potassium permanganate to not only control any odor but as a flocculent to aid in the settling process. That reduces the amount of material that has to be mixed. The paper trail is intact and we have been doing this for quite some time with success. I would ask that this requirement be amended to read "Material received at the trough must be mixed and stabilized in a timely manner not to exceed 48 hours." "Any material left to settle in the trough must be covered with a net. e.g. item 20."

12. I don't know what this means, secondary containment. Does it mean putting a liner down underneath like we did with the first one?

13. OK

14. We don't co-mingle anything. That's been our policy from the beginning. Berming each individual job is going to be a pain. Therefore if it's acceptable we will not do that. But we will select certain already constructed and bermed cells upon the landfarm where we will deposit and remediate non-exempt soils and the other cells will be used for exempt material. Also for clarification, no mixing of exempt and non-exempt soil "during the remediation process". We do mix them after we have received approval from OCD to recycle the soils. OK

15. OK

16. OK

17. OK

CONCRETE MIXING IMPOUNDMENT

I have sent with this fax a copy of my letter to Chris Eustice a diagram and dimensions of the present mixing trough. I believe we used a 30-mil liner not a 12 mil. The new troughs will be identically constructed but will use two common walls. I have enclosed a "birds eye view" of what they will look like.

TANK BOTTOM AND SLUDGE ACCEPTANCE

Normally all of the sludge we receive is exempt. Therefore we receive a certificate of waste status from the generator, obtain verbal approval from Denny or the local OCD office and schedule delivery. Depending on the quantity and nature of the material we do a few different things. If there is only a couple of 80 bbl loads they are usually put into the mixing trough, allowed to settle. The freestanding water is removed and either spread upon the landfarm or taken to Key SWD for disposal. I should clarify what the freestanding water is. Most of the tank bottoms and sludge we receive are from SWD cleanouts, e.g. when they clean out their holding tanks, etc. Therefore we consider the free liquid to be produced water which we are presently permitted to spread on the landfarm. In other cases such as production tank cleanouts we do not spread the water upon the landfarm it's hauled for disposal at Key. The remaining material in the trough is then stabilized with remediated dirt, removed from the trough and spread upon the landfarm. In cases where we are to receive several hundred barrels we will rent frac tanks and put the material directly into the tanks for temporary storage. Then we begin to empty the tanks into the trough about 200 bbls at a time, settle it out, remove the water and mix the remaining material, remove it and spread it on the landfarm. The tanks are then cleaned out and the clean out material is stabilized in the trough and also spread on the landfarm.

We have to date not had the occasion to receive tank bottoms and sludges that contain large amounts of crude. If we did we would allow the material to settle, remove the oil from the surface and dispose of it either at Key's oil holding tank or at the refinery. We would of course do the necessary paperwork involved. All tank bottoms and sludges are pre-screened for H2S before they are un-loaded from the truck. In most cases we require certification from the operator that the material is free of H2S before it's transported to the landfarm. Should H2S be detected it is treated on the truck with potassium permanganate, re-tested and if it's clean then it's unloaded either into the trough or a frac tank.

DRILLING MUD ACCEPTANCE AND TREATMENT PROCESS

We do not receive much drilling mud. If the drilling mud we do receive is un-used and is not an oil base, it is spread into our two run off containment ponds as a liner. Other drilling mud that is contaminated from down hole use or is oil based, we place into the mixing trough, settle out the water, take it to Key SWD and mix the remaining material with remediated soil and spread it on the landfarm. There is usually no large quantity of oil visually present in any mud we have accepted to date. But if it happened we would handle it the same way we would with excessive oil from tank bottoms and sludges. All used mud is tested for H2S on the truck. To date we haven't had a problem. But if we did we would treat it on the truck just as we do with tank bottoms and sludge.

I don't know where the Drilling Mud acceptance program information you have came from, but the preceding is what we do now.

The mixing trough referred to in item 11 the draft permit says must have the contents mixed and stabilized upon receipt. It's the same trough. That's why I asked that we have a maximum of 48 hours to allow the material to settle.

We also test drilling mud that has been down hole and all tank bottoms and sludge for NORMS.

PRODUCED WATER ACCEPTANCE

Other than what I have previously described re: tank bottoms, sludges and drilling mud we don't accept any produced water. It was an idea we had a long time ago, but most of the produced water is too high in TDS for our purposes.

TREATMENT ZONE MONITORING

1. OK

2. Re: the quarterly field testing, I love the way you have stated it. Now the question is do I report those results to OCD every quarter or keep them on file for review?

3. OK

4. OK you have just convinced me that I will take all of the water to KEY SWD.
5. OK

WASTE ACCEPTANCE CRITERIA

1. a. OK What about a certificate from out of state agency?

b. What about diesel fuel and un-used motor oil? We have been able to accept those wastes with an MSDS.
c. OK
2. OK
3. OK

FINANCIAL ASSURANCE

1. Sounds good to me!!
2. OK

CLOSURE

OK

I hope I have anwsered your questions successfully. And I hope you will give my ideas some consideration. If you have any questions or need more information please give me a call

Thanks for all of you help.

Phil

TIERRA
ENVIRONMENTAL
COMPANY Inc.
P.O. DRAWER 15250
FARMINGTON, NM 87401

February 1, 1996

Chris E. Eustice, Geologist
Environmental Bureau
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RE: REQUEST FOR MODIFICATION OF TIERRA ENVIRONMENTAL COMPANY, INC. LANDFARM PERMIT ORDER # R-9772:

Dear Mr. Eustice:

On behalf of Tierra Environmental Company, Inc., I submit the following proposal for permit modification. The purpose of the modification is to change the process Tierra presently uses for treating tank bottoms and sludges allowed under a current permit modification.

Tierra would propose to construct an above ground containment area out of re-enforced concrete capable of holding approximately 178 cubic yards of material.

The process employed would be to place the tank bottoms and sludges into the containment area, mixing them with the Tierra Ven-Pel product now being used in our current process, and with clean dirt in order that all free liquids be fully absorbed. The processed solid material would then be mixed, then removed from the containment area and placed in a regular landfarm cell for remediation in accordance with the existing Tierra Landfarm permit. Following the initial placement of the tank bottoms and/or sludges into the containment area the material would be inspect for any free oil. If any free oil is observed, it will be removed prior to mixing. It has been Tierra's experience while using our current process that no fee oil has been identified in any material processed to date.

The containment area would be constructed over a no less than 12 ml plastic liner which would extend from all four sides at least one foot beyond the outer walls. The purpose of the plastic liner (barrier extention) would be so that Tierra personnel could visibly detect leaks. The containment area and barrier extensions would be inspected at least once per week. A written record of that inspection would be made and kept on file for a period of time consistent with other inspections required under current Tierra OCD landfarm permit or for two years whichever is greater. Should any leak be detected, the local OCD office located in Aztec, New Mexico would be notified within 24 hours. All material located at that time within the containment area would be removed and the surface of the containment area thoroughly examined, for the source of the leak. When located, the

section of the containment area that is leaking would be removed. The space under the containment area would be flushed with a 4 % solution of potassium permanganate for the purpose of washing out and oxidizing any remaining contaminants. When fresh permanganate solution was observed running onto the exposed plastic barrier extention, fresh water would then be used to flush out any residual permanganate. Any soil contaminated either by the leak running off the plastic barrier extention(s) or from flushing activities would be excavated and placed into a regular landfarm cell for remediaiton. The area so excavated would be filled and compacted with clean or remediated fill material. The section of the containment area which had been leaking and was removed would be repaired pursuant to original construction specification. Prior to re-commencing operations the containment area would be flooded with water and again checked for leaks. Should no leaks be detected and with prior OCD approval the containment area would be placed back in service.

Accompanying this letter is a construction diagram and specification proposal from our contractor B & K Concrete, Inc., describing the containment area.

If you have any questions or require additional information please call me at 505-334-8894.

Thank you for your consideration.

Sincerely,

Phillip C. Nobis
President

san juan repro Form 288-2

B & K CONCRETE, INC.
P.O. BOX 1256
FARMINGTON, NEW MEXICO 87499
(505) 325-2177
LIC. #15425

Date 1-22-96

PROPOSAL SUBMITTED TO:
TIERRA ENVIRONMENTAL CO. INC.
Name
PHIL NOBIS
Street
P.O. BOX DRAWER 15250
City FARMINGTON, NM 87401 State

Job Name
Street
City State
Architect

We hereby submit specifications and estimates for: 156 LEN. FT. FOUNDATION AROUND HOLDING TANK.

24 X 66 8" THICK CONCRETE SLAB WITH NO 5 REBAR 2' ON CENTER.

HOLDING CAPACITY APPROXIMATELY 170 YDS.

SUB TOTAL

NM TAX NEED TAX EXEMPT CERTIFICATE

TOTAL

Note: *This proposal may be withdrawn by us if not accepted within* FIFTEEN *days.*

Payment to be made as follows PAYMENT DUE IN FULL UPON COMPLETION OF WORK DONE.

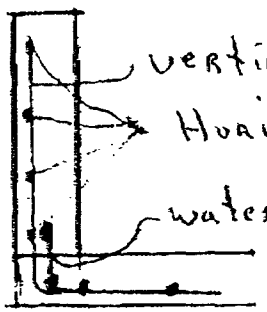
All material is guaranteed to be as outlined. All work to be done in workmanlike manner according to standard practices. Any alterations or deviation from above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control.

Authorized Signature Tony Bees

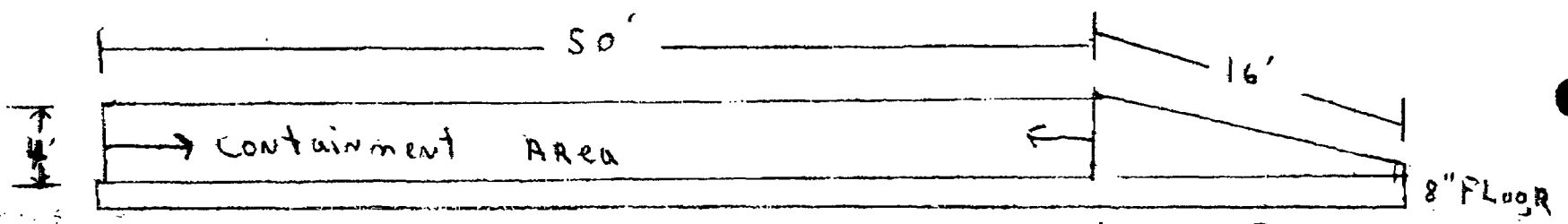
Acceptance of Proposal

The above prices, descriptions and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

ACCEPTED
Date _____ Signature _____



3500 PSI



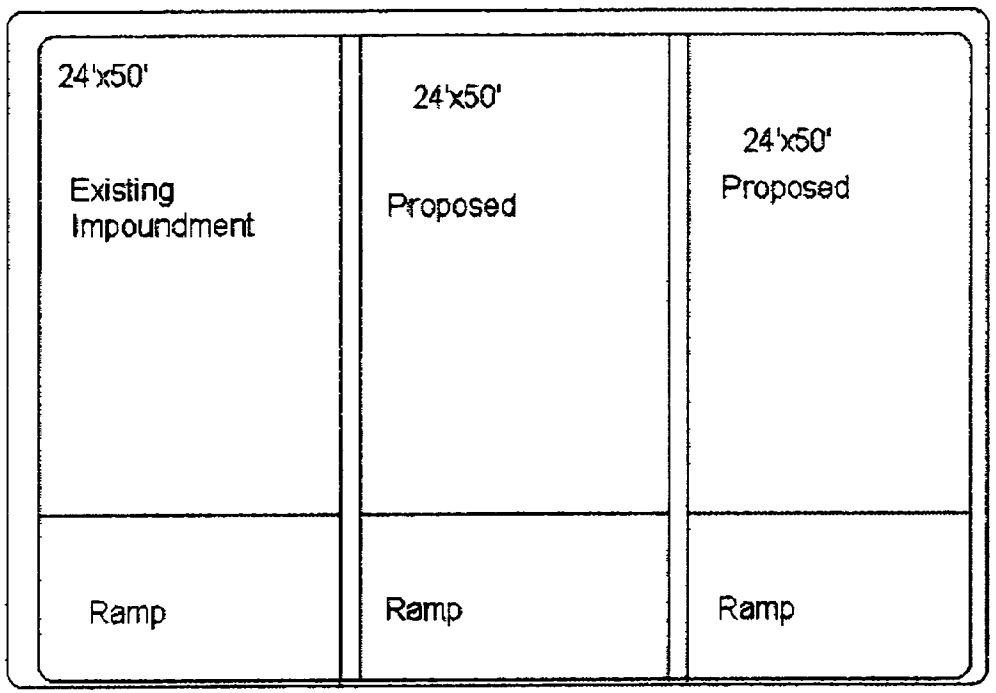
24 X 68 8" Slab with No 5 Rebar 2' o.c 3'500 P.S.I.

24 X 50 Holding capacity Approximaty 178 yds

Tierra Environmental Company, Inc.
Concrete Mixing Trough(s) (existing and proposed)
420 County Road 3100
Aztec, NM 87410

Not to scale

North



OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505
(505) 827-7133
Fax: (505) 827-8177

(PLEASE DELIVER THIS FAX)

To: Denny Foust

From: Martyne Kieling

Date: 9-10-99

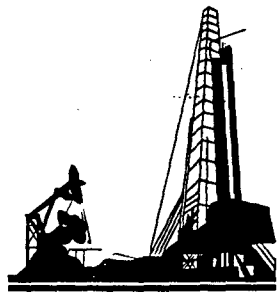
Number of Pages (Includes Cover Sheet) Page 1 of 7

Message: E-Mail Has Newest Draft Changes

If you have any trouble receiving this, please call:
(505) 827-7133

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505
(505) 827-7133
Fax: (505) 827-8177



(PLEASE DELIVER THIS FAX)

To: Phil Nobis 505-334 9024

From: Martyne Kicling

Date: 9-3-99

Number of Pages (Includes Cover Sheet) Page 1 of 8

Message: Thanks in advance For Clearing up These Questions For Me. Again this is a working Draft Please Bear with me

Martyne

If you have any trouble receiving this, please call:
(505) 827-7133

Draft
Sent to
Phil N.
on 9-3-99

ATTACHMENT TO OCD 711 PERMIT APPROVAL
PERMIT NM-01-0010
TIERRA ENVIRONMENTAL COMPANY , INC.
SURFACE WASTE MANAGEMENT FACILITY
NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM,
San Juan County, New Mexico
(September 6, 1999)

LANDFARM OPERATION

1. The facility must be fenced and have a sign at each entrance. The sign must be legible from at least fifty (50) feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.

2. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.

3. All contaminated soils received at the landfarm must be spread and disked within 72 hours of receipt.

4. Soils must be spread on the surface in six-inch lifts or less.

5. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils to reduce the occurrence of natural wind erosion.

6. Moisture may be added to contaminated soils received at the facility to (1) prevent emissions of volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.

7. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within 72 hours of discovery.

8. The portion of the facility containing contaminated soils must be bermed to prevent run-off and run-on. A perimeter berm must be constructed and maintained such that it is capable of containing precipitation from a one-hundred year flood for the specific region.

9. All above-ground tanks must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks. All tanks must be labeled as to contents and hazards.

10. All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the containment area will hold one and one-third the volume of the largest tank or all interconnected tanks.

11. The concrete holding and treating trough may be used for the stabilization and absorption of tank bottoms and sludge received by the landfarm facility. Tank bottoms and sludge received at the trough

Draft

must be mixed and stabilized upon receipt. No free liquids or soils with free liquids may be stored in the concrete holding and treating trough. The trough must be inspected inside and outside weekly for containment leaks and overall integrity. Records of such inspections must be made available to the OCD upon request.

12. All new or replacement concrete holding and treating troughs at the facility must have secondary impermeable containment.

13. The OCD Santa Fe and Aztec District office must be notified within 24 hours of discovery of a containment leak.

14. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt soils.

15. Successive lifts of contaminated soils may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils.

16. Enhanced bioremediation through the application of microbes (bugs) and/or fertilizers is permitted only after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.

17. Contaminated soils may not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.

18. Any design changes to the landfarm and tank bottom/sludge holding and treatment area must submitted to the OCD Santa Fe office for approval and a copy must be sent to the Aztec District office.

19. Landfarm inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and Aztec District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the landfarm additional wastes may not be placed into the landfarm until repairs have been completed.

20. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered nonhazardous to migratory birds.

Draft

CONCRETE MIXING IMPOUNDMENT CONSTRUCTION

(Phil Please provide the construction specifications including approximate dimensions, concrete thickness, and type & thickness of secondary liner to be used)

1. The evaporation pond and moisture sensor grid shall be constructed in accordance with the engineering designs submitted as part of the application.
   Two (2) concrete mixing impoundments will be constructed of reinforced concrete with a 30mm plastic secondary liner. The seams on the concrete impoundment will be sealed.

2. Upon completion of construction "as built" completion diagrams of the concrete settling & mixing impoundment shall be submitted and approved by the Director prior to commencement of operations.

TANK BOTTOM & SLUDGE ACCEPTANCE

(Phil Please provide the tank bottom & sludge waste acceptance and treatment process that is currently used at Tierra.)

DRILLING MUD ACCEPTANCE

(Phil Please provide the drilling mud waste acceptance and treatment process that is currently used at Tierra.)

1. All drilling muds must be received directly into the concrete settling pit for oil and water separation. The pre-treatment area must consist of above-ground metal tanks. An adequate freeboard must be maintained to prevent spillage and overflow of liquids from the tanks. The tanks must be bermed to contain one and one third the volume of all tanks.

2. Any free oil must be removed from the drilling mud prior to removal of the mud from the pre-treatment area. The oil must be stored in above-ground closed-top tanks.

3. Free water must be removed from the drilling mud prior to removal of the mud from the tanks for landfarm application. The free water must be stored in above-ground closed-top tanks and after appropriate screening may be spread on the landfarm for dust control and to enhance bioremediation. The water must be screened for hydrogen sulfide (H_2S), oils, total dissolved solids (TDS), and pH. Water with H_2S must be treated to remove all traces of H_2S prior to application. The source, amount, and test results of each load of drilling mud water must be recorded and made available to the OCD upon request.

4. After removal of free oil and free water, an OCD-approved test must be conducted on the mud to determine the moisture content prior to spreading the mud on the landfarm. Mud must be spread in six (6) inch lifts or less. There may be no ponding, pooling or run-off. Mud may not be spread on soils being actively remediated.

5. Drilling mud may be used to line the two run-off retention impoundments as long as the

Draft

impoundments retain the required 100-year flood capacity.

6. Other drilling mud application methods may be allowed on a case-by-case basis. The facility must obtained OCD District Supervisor approval for alternate application methods prior to acceptance of the mud.

7. No mud may be accepted at the facility without prior approval from the OCD District Supervisor to move the mud from the drilling location. In addition, each incoming load of drilling mud must be accompanied by the following information: 1) well operator name; 2) the well name and location from which the mud was transported; 3) transporter; 4) description of mud program (*i.e., mud composition including volume and type of chemicals added*); and 5) exact cell location where the material is to be remediated.

8. Drilling mud will be considered remediated when a laboratory measurement of total petroleum hydrocarbons (TPH) is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated mud. District approval must be obtained in order to remove reconditioned mud from the facility.

9. Loads of drilling mud that contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-112 and transportation of these hydrocarbons is permitted only with an approved Form C-104.

PRODUCED WATER ACCEPTANCE

(Phil Please provide the produced water waste acceptance and treatment process that is currently used at Tierra.)

1. The produced water must be stored in above-ground closed-top tanks and after appropriate screening may be spread on the landfarm for dust control and to enhance bioremediation. The produced water must be screened for hydrogen sulfide (H_2S), oils, total dissolved solids (TDS), and pH. Water with H_2S must be treated to remove all traces of H_2S prior to application. Produced water with free oil, TDS greater than 10,000 ppm, and a pH less than 6 or greater than 9 must be rejected. The source, amount, and test results of each load of produced water must be recorded and made available to the OCD upon request

TREATMENT ZONE MONITORING

1. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the

Draft

native ground surface.

2. The soil samples must be analyzed quarterly for total petroleum hydrocarbons (TPH) using an OCD-approved field method. If TPH is detected, then a laboratory analysis must be conducted for TPH and volatile aromatic organics (BTEX) using EPA-approved methods.

3. The soil samples must be analyzed annually using EPA-approved methods for total petroleum hydrocarbons (TPH), volatile aromatic organics (BTEX), major cations/anions and eight (8) RCRA heavy metals.

4. In addition to the above sampling and analysis schedule, all cells receiving produced water or drilling mud water must be analyzed for major cations/anions and eight (8) RCRA heavy metals quarterly using EPA-approved methods.

5. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

WASTE ACCEPTANCE CRITERIA

1. The facility is authorized to accept only:

   a. Oilfield wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403. All loads of these wastes received at the facility must be accompanied by a "Generator Certificate of Waste Status" signed by the generator.

   b. "Non-hazardous" non-exempt oilfield wastes on a case-by-case basis after conducting a hazardous waste characterization including corrosivity, reactivity, ignitability, and toxic constituents. The samples for these analyses must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:

      i. An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."

      ii. A "Generator Certificate of Waste Status" signed by the generator.

      iii. A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.

   c. Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.

Draft

2. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.

3. The transporter of any wastes to the facility must supply a certification that wastes delivered are those wastes received from the generator and that no additional materials have been added.

REPORTING AND RECORD KEEPING

1. Results of the daily visual inspection of the facility must be recorded and maintained for OCD review.

2. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office **within thirty (30) days** of receipt from the laboratory or within thirty (30) days of the field testing. A sample location map must be included with the analysis report.

3. Analytical results regarding remediated soil or drilling mud must be submitted to the OCD Santa Fe office with a copy to the Aztec District office, along with any request to close the cell, apply successive lifts or remove the remediated soils.

4. Results of screening of free water or produced water and analytical results regarding moisture content of drilling mud must be recorded and maintained for OCD review.

5. Results of weekly inspections of the concrete holding and treating trough must be recorded and maintained for OCD review.

6. Tierra Environmental Company, Inc. must notify the **OCD Aztec District office within 24 hours** of any fire, break, leak, spill, blowout or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

7. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.

8. Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load must include: 1) generator; 2) origin; 3) date received; 4) quantity; 5) certification of waste status with supporting documentation to certify non-hazardous status; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc.*

8. All records of testing and monitoring must be retained for a period of five (5) years.

FINANCIAL ASSURANCE

1. Financial assurance in the amount of **$33,000** in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from Tierra Environmental Company, Inc. for the commercial surface waste management facility.

Draft

By October 6, 1999 Tierra Environmental Company, Inc. must submit 100% of the financial assurance in the amount of **$33,000.**

2. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility will be reviewed by the OCD no later than five (5) years from the date of this approval. In addition the closure cost estimate will be reviewed according to prices and remedial work estimates at the time of review. The financial assurance may be adjusted to incorporate any closure cost changes.

CLOSURE

1. The OCD Santa Fe and Aztec offices must be notified when operation of the facility is discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Upon cessation of operations for six (6) consecutive months, the operator shall complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension of time is granted by the Director.

2. A closure plan to include the following closure procedures will be submitted to the OCD for approval:

   a. When the facility is to be closed no new material will be accepted.

   b. The soils beneath the sludge/mud receiving and treatment area and landfarm will be characterized as total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) content to determine potential migration of contamination.

   c. All above and below grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.

   d. Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.

   e. The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.

   f. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable local, state and/or federal regulations.

CERTIFICATION

Tierra Environmental Company, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Tierra Environmental Company, Inc. further

Draft

acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

TIERRA ENVIRONMENTAL COMPANY, INC.

Signature _____ Title _____ Date _____

Client# 1360 ENEENV

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 05/25/99

PRODUCER
Animas Valley Insurance Agency
P.O. Box 5220
Farmington, NM 87499
505 327-4441

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
Tierra Environmental Co. Inc.
P.O. Drawer 15250
Farmington, NM 87401

INSURER A: Unionamerica Insurance Company
INSURER B: Trinity Universal Insurance
INSURER C: New Mexico Mutual Casualty Company
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	NCU1070100	09/13/98	09/13/99	EACH OCCURRENCE	$1,000,000
	[X] COMMERCIAL GENERAL LIABILITY				FIRE DAMAGE (Any one fire)	$50,000
	[ ] CLAIMS MADE [X] OCCUR				MED EXP (Any one person)	$5,000
	[X] BI/PD Ded:2,500				PERSONAL & ADV INJURY	$1,000,000
					GENERAL AGGREGATE	$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS-COMP/OP AGG	$2,000,000
	[ ] POLICY [ ] PRO-JECT [ ] LOC					
B	AUTOMOBILE LIABILITY	CA684237302	01/08/99	01/08/00	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	[ ] ANY AUTO					
	[ ] ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	[X] SCHEDULED AUTOS					
	[X] HIRED AUTOS				BODILY INJURY (Per accident)	$
	[X] NON-OWNED AUTOS					
					PROPERTY DAMAGE (Per accident)	$
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	[ ] ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
					AGG	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	[ ] OCCUR [ ] CLAIMS MADE				AGGREGATE	$
						$
	[ ] DEDUCTIBLE					$
	[ ] RETENTION $					$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	011871105	03/13/99	03/13/00	[ ] WC STATU-TORY LIMITS [ ] OTH-ER	
					E.L. EACH ACCIDENT	$500,000
					E.L. DISEASE-EA EMPLOYEE	$500,000
					E.L. DISEASE-POLICY LIMIT	$500,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

CERTIFICATE HOLDER | ADDITIONAL INSURED; INSURER LETTER: ___

Energy, Minerals, & Natural
Resource;NM Oil Conservation
2040 S Pacheco
Santa Fe, NM 87505

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

May 24, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-537

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Approval To Recycle Soil

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of May 17, 1999 and has reviewed the analytical data concerning remediated soils within Cell-3 and Cell 5. Tierra's request to recycle soil from Job #94047 and #94039 located in Cell-3 and Job #96044 located in Cell-5 is hereby approved with the following recycling uses:

1. Soil backfill for oil and gas projects such as refilling pits and building berms;
2. Road base construction material; and
3. Stabilize tank bottoms and sludges.

Application of these soils in the approved projects listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-5 and Cell-3 for any other use than those approved here separate OCD authorization must be granted.

In addition, The OCD has reviewed the analytical data concerning the soil from Job #94094 located in Cell-2 from Burlington Resources (formerly Meridian Oil). Tierra's request to recycle soil from Job #94094 is hereby approved with the following recycling use:

1. Stabilize tank bottoms and sludges for landfarming at Tierra .

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

If you have any further questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

May 17, 1999

Martyne J. Kieling, Environmental Geologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: RECYCLING OF REMEDIATED SOIL

Dear Ms. Kieling:

Enclosed please find the analysis on the following material that has been remediated to meet OCD standards.

1. Job # 94047 El Paso Field Services – Cell 3
2. Job # 94039 Chief Transport – Cell 3
3. Job # 96044 PNM – Cell 5

Tierra Environmental requests permission to recycle this material for use in oil and gas construction projects, road construction or to stabilize tank bottoms and sludge.

I have also included analysis on Job # 94094 Burlington Resources (formerly Meridian Oil). ← Cell-2 It has a higher than normal TPH level at 227 mg/kg and BTEX at 368 ug/kg. I don't know if this is a lab anomaly or that it just has not remediated as quickly as the other material. Because the levels are relatively low we would like to re use this material exclusively to stabilize tank bottoms and sludge on the landfarm.

Per Phil Nobis 5-24-99 mjk

Thank you for your cooperation.

Sincerely,

Phillip C. Nobis
President

mjk 5-24-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94094	Date Reported:	11-12-98
Laboratory Number:	E155	Date Sampled:	11-06-98
Chain of Custody No:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.4**	**0.2**
Diesel Range (C10 - C28)	**227**	**0.1**
Total Petroleum Hydrocarbons	**227**	**0.2**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94039	Date Reported:	11-12-98
Laboratory Number:	E158	Date Sampled:	11-06-98
Chain of Custody No:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	96044	Date Reported:	11-12-98
Laboratory Number:	E157	Date Sampled:	11-06-98
Chain of Custody No:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**2.2**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**2.2**	**0.2**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94047	Date Reported:	11-12-98
Laboratory Number:	E156	Date Sampled:	11-06-98
Chain of Custody No:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**2.3**	**0.2**
Diesel Range (C10 - C28)	**0.6**	**0.1**
Total Petroleum Hydrocarbons	**2.9**	**0.2**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94094	Date Reported:	11-11-98
Laboratory Number:	E155	Date Sampled:	11-06-98
Chain of Custody:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Analyzed:	11-10-98
Preservative:	Cool	Date Extracted:	11-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**209**	**8.8**
Toluene	**18.4**	**8.4**
Ethylbenzene	**14.8**	**7.6**
p,m-Xylene	**85.3**	**10.8**
o-Xylene	**40.7**	**5.2**
Total BTEX	**368**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94047	Date Reported:	11-11-98
Laboratory Number:	E156	Date Sampled:	11-06-98
Chain of Custody:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Analyzed:	11-10-98
Preservative:	Cool	Date Extracted:	11-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**ND**	**10.8**
o-Xylene	**ND**	**5.2**
Total BTEX	**ND**	

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	96044	Date Reported:	11-11-98
Laboratory Number:	E157	Date Sampled:	11-06-98
Chain of Custody:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Analyzed:	11-10-98
Preservative:	Cool	Date Extracted:	11-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**ND**	**10.8**
o-Xylene	**ND**	**5.2**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental Co.	Project #:	04074-03
Sample ID:	94039	Date Reported:	11-11-98
Laboratory Number:	E158	Date Sampled:	11-06-98
Chain of Custody:	6385	Date Received:	11-09-98
Sample Matrix:	Soil	Date Analyzed:	11-10-98
Preservative:	Cool	Date Extracted:	11-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**ND**	**10.8**
o-Xylene	**ND**	**5.2**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

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: **Land Farm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	11-10-BTEX QA/QC	Date Reported:	11-11-98
Laboratory Number:	E155	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-10-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	3.7569E-002	3.7834E-002	0.7%	ND	0.2
Toluene	1.2324E-002	1.2386E-002	0.5%	ND	0.2
Ethylbenzene	1.5149E-002	1.5210E-002	0.4%	ND	0.2
p,m-Xylene	1.2209E-002	1.2270E-002	0.5%	ND	0.2
o-Xylene	1.2474E-002	1.2562E-002	0.7%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	209	211	0.8%	0 - 30%	8.8
Toluene	18.4	18.4	0.0%	0 - 30%	8.4
Ethylbenzene	14.8	14.9	0.7%	0 - 30%	7.6
p,m-Xylene	85.3	85.8	0.6%	0 - 30%	10.8
o-Xylene	40.7	41.2	1.2%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	209	50.0	257	99%	39 - 150
Toluene	18.4	50.0	68.2	100%	46 - 148
Ethylbenzene	14.8	50.0	64.6	100%	32 - 160
p,m-Xylene	85.3	100.0	184	100%	46 - 148
o-Xylene	40.7	50.0	90.3	99%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples E155 - E158.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-11-TPH QA/QC	Date Reported:	11-12-98
Laboratory Number:	E155	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-11-98
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	11-11-98	1.3104E-001	1.3092E-001	**0.09%**	**0 - 15%**
Diesel Range C10 - C28	11-11-98	7.6027E-002	7.5981E-002	**0.06%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**0.4**	**0.4**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**227**	**225**	**0.8%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**0.4**	**250**	**250**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**227**	**250**	**476**	**100%**	**75 - 125%**

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: **QA/QC for samples E149 and E155 - E158.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

6385

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Tierra Environmental Co.	Loyd Farm	
Sampler: David Bennett	Client No. 04074-03	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Btex	8015					Remarks
94044	11-6-98	11:20 AM	E155	Soil	1	✓	✓					
94047	"	11:15 AM	E156	"	1	✓	✓					
96044	"	11:00 AM	E157	"	1	✓	✓					
94039	"	11:05 AM	E158	"	1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
David Bennett	11-9-98	13:15	Chris Walsh	11-9-98	13:13
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

May 10, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-517

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Request To Accept Sewage Sludge

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) received Tierra Environmental Company's, Inc. (Tierra) letter dated January 29, 1999 regarding the request to accept sewage sludge as an amendment to aid in landfarm bio-remediation. The OCD has reviewed the proposal and researched the appropriate regulations.

The United States Environmental Protection Agency (EPA) regulates the use or disposal of sewage sludge through 40 CFR Part 503. EPA does not recognize enhanced bio-remediation of petroleum contaminated soils as a land application or beneficial use. Instead EPA defines it as surface disposal of a waste which is covered under 40 CFR Part 503 Subpart C.

Under Rule 711, OCD surface waste disposal facilities may accept non-oilfield waste in an emergency if ordered by the Department of Public Safety. The disposal of sewage sludge would not qualify as an emergency. Therefor, OCD 711 surface waste management facilities shall not accept non-oil field waste including sewage sludge.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office
Artesia OCD Office
Hobbs OCD Office
Gandy Marley, Inc.

TIERRA ENVIRONMENTAL COMPANY INC.

PHONE: (505) 334-8894
FAX: (505) 334-9024

P.O. DRAWER 15250
FARMINGTON, NM 87401

E-mail Address: teci@cyberport.com

RECEIVED
FEB 1 1998
Environmental Bureau
Oil Conservation Division

RECEIVED
FEB 16 1999
OIL CONSERVATION DIVISION

January 29, 1999

Martyne J. Keiling
Oil Conservation Division
2040 South Pacheco
Sante Fe, New Mexico 87505

Amendment

RE: REQUEST TO ACCEPT ACTIVATED SEWER SLUDGE, AS AN AMMENITY, FROM THE CITY OF AZTEC

Ms. Keiling,

We are requesting approval to accept activated sewer sludge from the City of Aztec, NM, to enhance our remediation process. We have obtained a TCLP analysis of the sludge to characterize it as non-hazardous.

As you know, our remediation process depends upon the microbial process of breaking down hydrocarbon contaminants in the soils that we accept. The content of bacteria in the soil along with the oxidation process from tilling the soil is how the process works. As cited in several publications about hydrocarbon contamination (Reference – Hydrocarbon Contaminated Soils, by Paul T. Kostecki, Edward J. Calabrese and Marc Bonazountas copyright 1992), nutrients such as nitrogen and phosphorous added to the soil, enhance the microbial process and increase the bacteria content of the soil. To date, we have not added additional nutrients to our soils, and have relied upon the natural nutrients and bacteria content to break down the contamination.

In the years that we have been in operation, it has been noticed that some soils clean up rather quickly, while others with comparable contamination take a considerably longer time to remediate. The obvious reason for this is that some soils contain more naturally occurring bacteria than others do.

To put it plainly, activated sewer sludge contains bacteria and nitrogen. Although not all of the bacteria in the sludge help remediate hydrocarbon contamination, they do produce elements that chemically break down hydrocarbons, and other nutrients that useful bacteria need to reproduce and complete the biodegradation process.

Nitrogen has been proven in several tests, (Reference-Hydrocarbon Contaminated Soils and Groundwater, Paul T. Kostecki & Edward J. Calabrese, copyright 1991) to enhance microbial growth and shorten the remediation process by one third to one fourth the time normally required.

Given the information provided and reference suggestions, we respectfully request that you allow us to accept activated sewer sludge from the City of Aztec's Wastewater facility as an amenity to enhance and speed up our remediation process.

Please call me if you have any questions or require further information, (505)334-8894.

Respectfully Submitted,

Tim Nobis
Operations Manager

Acculabs Inc.

Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-082

October 12, 1998

RECEIVED

FEB 1 1998

Environmental Bureau
Oil Conservation Division

Acculabs I.D. : **1-809-079**

Case Narrative

Certain Parameters Should have been analyzed for TCLP concentrations but instead were run using protocols determining total concentrations.

All of these analytes were ND in the total concentration tests, indicating that they would be below the Maximum Allowable Concentrations by TCLP.

To convert the mg/Kg reporting limits to equivalent potential TCLP values, divide by a factor of 20.

Stewart Podolsky, Laboratory Director

Acculabs Inc.

Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-0826

CDS Labs
75 Suttle Street
Durango, CO 81301
Attention: Debbie Zufelt

Acculabs I.D.:	**1-809-079-1**
Date Received:	09/11/98
Date Reported:	10/06/98
Date Extracted:	09/22/98
Dilution Factor:	5
Sample Matrix:	Sludge
Sample Date:	09/10/98

PROJECT NAME: NA
PROJECT NUMBER: NA
SAMPLE I.D.: 136877

METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

RESULTS

PARAMETER	METHOD	RESULTS	UNITS	ADHS NO.	ANALYZED
A-BHC	8081A	<0.025	mg/kg	AZ0563	09/24/98
G-BHC (Lindane)	8081A	<0.025	mg/kg	AZ0563	09/24/98
B-BHC	8081A	<0.025	mg/kg	AZ0563	09/24/98
Heptachlor	8081A	<0.025	mg/kg	AZ0563	09/24/98
D-BHC	8081A	<0.025	mg/kg	AZ0563	09/24/98
Aldrin	8081A	<0.025	mg/kg	AZ0563	09/24/98
Heptachlor Epoxide	8081A	<0.025	mg/kg	AZ0563	09/24/98
Endosulfan I	8081A	<0.025	mg/kg	AZ0563	09/24/98
4,4-DDE	8081A	<0.025	mg/kg	AZ0563	09/24/98
Dieldrin	8081A	<0.025	mg/kg	AZ0563	09/24/98
Endrin	8081A	<0.025	mg/kg	AZ0563	09/24/98
4,4-DDD	8081A	<0.025	mg/kg	AZ0563	09/24/98
Endosulfan II	8081A	<0.025	mg/kg	AZ0563	09/24/98
4,4-DDT	8081A	<0.025	mg/kg	AZ0563	09/24/98
Endrin Aldehyde	8081A	<0.125	mg/kg	AZ0563	09/24/98
Endosulfan Sulfate	8081A	<0.025	mg/kg	AZ0563	09/24/98
Methoxychlor	8081A	<0.05	mg/kg	AZ0563	09/24/98
Chlordane	8081A	<0.10	mg/kg	AZ0563	09/24/98
Toxaphene	8081A	<0.15	mg/kg	AZ0563	09/24/98

SURROGATE:	% Recovery
DCBP	36
TCX	74

Robert V. Woods, Laboratory Director

Acculabs Inc.

Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-0826

CDS Labs
75 Suttle Street
Durango, CO 81301
Attention: Debbie Zufelt

Acculabs I.D.: 1-809-079-1
Date Received: 09/11/98
Date Reported: 10/06/98
Dilution Factor: 1

PROJECT NAME: NA
PROJECT NUMBER: NA
SAMPLE I.D.: 136877

Sample Matrix: Sludge
Sample Date: 09/10/98

METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

RESULTS

PARAMETER	METHOD	RESULTS	UNITS	ADHS NO.	ANALYZED
Arsenic	6010/1311	<1	mg/L	AZ0563	09/24/98
Cadmium	6010/1311	<0.5	mg/L	AZ0563	09/24/98
Chromium	6010/1311	<1	mg/L	AZ0563	09/24/98
Lead	6010/1311	<1	mg/L	AZ0563	09/24/98
Mercury	7471/1311	<0.05	mg/L	AZ0563	09/24/98

DDD

Acculabs Inc.

Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-082

PROJECT NAME:	NA	Sample Matrix:	Sludge
PROJECT NUMBER:	NA	Sample Date:	09/10/98
SAMPLE I.D.:	136877		

Iodomethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Isopropylbenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Methylene Chloride	8260B	<0.1	mg/kg	AZ0563	09/24/98
Napthalene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Styrene	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1,1,2-Tetrachloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1,2,2-Tetrachloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Tetrachloroethene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Toluene	8260B	0.15	mg/kg	AZ0563	09/24/98
1,2,4-Trichlorobenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1,1-Trichloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1,2-Trichloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Trichloroethylene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Trichlorofluoromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2,3-Trichloropropane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Vinyl Chloride	8260B	<0.05	mg/kg	AZ0563	09/24/98
o-Xylene	8260B	<0.05	mg/kg	AZ0563	09/24/98
m&p-Xylene	8260B	<0.10	mg/kg	AZ0563	09/24/98
Methylethyl Ketone	8260B	<0.05	mg/kg	AZ0563	09/24/98

Surrogate:	% Recovery	Limits
Dibromofluoromethane	85	69-129
Toluene-d8	88	82-122
4-Bromofluorobenzene	92	75-123

Robert V. Woods, Laboratory Director

Acculabs Inc.

Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-0826

CDS Labs
75 Suttle Street
Durango, CO 81301
Attention: Debbie Zufelt

Acculabs I.D.: 1-809-079-1
Date Received: 09/11/98
Date Reported: 10/06/98
Date Extracted 9/22/98
Dilution Factor: 1

PROJECT NAME: NA
PROJECT NUMBER: NA
SAMPLE I.D.: 136877

Sample Matrix: Sludge
Sample Date: 09/10/98

METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

RESULTS

PARAMETER	METHOD	RESULTS	UNITS	ADHS NO	ANALYZED
Benzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Bromochloromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Bromodichloromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Bromoform	8260B	<0.05	mg/kg	AZ0563	09/24/98
Bromomethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Carbon Disulfide	8260B	<0.05	mg/kg	AZ0563	09/24/98
Carbon Tetrachloride	8260B	<0.05	mg/kg	AZ0563	09/24/98
Chlorobenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Chloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Chloroform	8260B	<0.05	mg/kg	AZ0563	09/24/98
Chloromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Dibromochloromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2-Dibromo-3-Chloropropane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2-Dibromoethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
Dibromomethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2-Dichlorobenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,3-Dichlorobenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,4-Dichlorobenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Dichlorodifluoromethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1-Dichloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2-Dichloroethane	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,1-Dichloroethene	8260B	<0.05	mg/kg	AZ0563	09/24/98
trans-1,2-Dichloroethene	8260B	<0.05	mg/kg	AZ0563	09/24/98
1,2-Dichloropropane	8260B	<0.05	mg/kg	AZ0563	09/24/98
cis-1,3-Dichloropropene	8260B	<0.05	mg/kg	AZ0563	09/24/98
trans-1,3-Dichloropropene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Ethylbenzene	8260B	<0.05	mg/kg	AZ0563	09/24/98
Hexachlorobutadiene	8260B	<0.05	mg/kg	AZ0563	09/24/98

RKP

Robert V. Woods, Laboratory Director

Acculabs Inc.
Phoenix 3902 E. University Drive #4, Phoenix AZ 85034 ■ 602-437-0979 ■ Fax 437-082(

CDS Labs
75 Suttle Street
Durango, CO 81301
Attention: Debbie Zufelt

Acculabs I.D.: 1-809-079-1
Date Received: 09/11/98
Date Reported: 10/06/98
Date Extracted: 09/24/98
Dilution Factor: 20

PROJECT NAME: NA
PROJECT NUMBER: NA
SAMPLE I.D.: 136877

Sample Matrix: Sludge
Sample Date: 09/10/98

METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

RESULTS

PARAMETER	METHOD	RESULTS	UNITS	ADHS NO.	ANALYZED
DICAMBA	8151A	<0.1	mg/kg	AZ0563	10/03/98
2,4-D	8151A	<0.1	mg/kg	AZ0563	10/03/98
2,4,5-TP (Silvex)	8151A	<0.1	mg/kg	AZ0563	10/03/98
2,4,5-T	8151A	<0.1	mg/kg	AZ0563	10/03/98
DINOSEB	8151A	<0.1	mg/kg	AZ0563	10/03/98
2,4-DB	8151A	<0.1	mg/kg	AZ0563	10/03/98

SURROGATE:	% Recovery
DCAA *	96

* Dilution Factor = 10

Robert V. Woods, Laboratory Director

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

April 30, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-433

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Proposal To Form An Alliance With Sunco Disposal.

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) received Tierra Environmental Company's, Inc. (Tierra) letter dated April 22, 1998 regarding the proposal to form an alliance with Sunco Trucking Water Disposal Facility (Sunco). The OCD has reviewed the proposal and approves the alliance with the following requirements:

1. Materials placed in the concrete impoundment for settling purposes shall not hold liquids for more than 24 hours.

2. All liquids separated and removed from the concrete impoundment will be transported to the Sunco waste management facility for disposal. Liquids will not be stored at the Tierra waste management facility.

3. Both Tierra and Sunco will submit appropriate OCD forms and supplemental information for the waste acceptance and retain copies of all documentation pertaining to each job for their disposal records.

4. Non-exempt materials to be processed in this manor will require sample analysis for hazardous waste characterization on the liquids portion.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office
Ron Fellabaum, Sunco Trucking Water Disposal Facility.

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. Drawer 15250
Farmington, New Mexico 87401
Phone 505-334-8894 Fax 505-334-9024
E-Mail teci@cyberport.com

April 22, 1998

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: PROPOSAL TO FORM AN ALLIANCE WITH SUNCO DISPOSAL

Dear Mr. Anderson:

Tierra Environmental Company and Sunco Disposal Facility propose to form an alliance where by we may act as agent for one another. The purpose of the proposed alliance is to solve two major problems that we have encountered, accepting certain exempt and non exempt non hazardous waste material. Those problems are, that Tierra has a permit from OCD which allows us to accept certain tank bottoms and sludges, which we mix with remediated dirt and then landfarm. When the wastes are first characterized by the generator, estimates usually include how many barrels or cubic yards of material are to be disposed of. However when the material is being removed from the tanks a substantial amount of water is used in the process thereby increasing the amount of waste and making it far more difficult for us to stabilize upon receipt. Sunco Disposal on occasion is approved to accept certain waste water based on the generators description. However sometimes when the material arrives, it contains about 50% or more sludge material. Sunco does have the ability to mix the sludge material, however their landfarm is only permitted for their own use and they do not desire to attempt a permit modification where in they may be allowed to stabilize this material and landfarm it.

Therefore on behalf of Tierra and Sunco, I would propose the following. That when the afore described situations arise, Tierra be allowed to place the material in our cement impoundment, and settle out the solids. The water would then be removed and transported to Sunco for injection. The remaining solids would then be stabilized and landfarmed at our facility. Regarding the paperwork, if it is a Sunco customer, Sunco will prepare the appropriate OCD required forms with a notation that so many cubic yards or barrels of sludge or solids were disposed of at the Tierra Landfarm and so many barrels of wastewater were accepted for injection by the Sunco Facility. The reverse would apply if it was a Tierra customer. The required paperwork would be copied to either Sunco or Tierra depending on who's customer it was. In any event OCD would have a record of exactly what the material was, where it was disposed of, who the generator was, when it was delivered etc. The OCD pre approval requirement would not change.

We would appreciate your consideration of this proposal and with your approval would like to begin implementing it as soon as possible.

Sincerely,

Phillip C. Nobis
President

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

July 7, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-462

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Approval To Recycle Soil

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of June 30, 1998 and has reviewed the analytical data concerning remediated soils within Cell-11. Tierra's request to recycle approximately 2,768 cubic yards of soil located in Cell-11 all generated by Gary Energy Company is hereby approved with the following recycling uses:

1. Soil backfill for oil and gas projects such as refilling pits and building berms;
2. Road base construction material.

Application of these soils in the approved projects listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-11 for any other use than those approved here separate OCD authorization must be granted.

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

If you have any further questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

June 30, 1998

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REQUEST FOR APPROVAL TO RECYCLE SOILS

Mr. Anderson,

The following is a proposal to recycle soils obtained from Gary Energy Co. These soils were derived from a tank battery located in Montezuma Creek, Utah and consist of approximately 2768 yards. The soil was contaminated with raw crude oil that had leaked from the tanks over a period of years.

Tierra would like to gather and use these soils for backfill, road material, and berm construction for the oilfield industry. The soils consist of fifty percent dirt and fifty percent rip-rap type material. Therefore it would ineffective for use as stabilizing tank bottoms unless in case of emergency.

The soils proposed for recycling are currently in Cell #11 at the Tierra landfarm. The soils are not co-mingled with any other materials within this particular cell. Tierra respectfully requests approval for this project as the analysis indicate the TPH and the BTEX levels are within the acceptable limits. The TPH and BTEX analysis results are enclosed.

Sincerely,

Blaine Williams
Environmental Specialist

CHAIN OF CUSTODY RECORD

6139

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Tierra		
Sampler: Blaine Williams	Client No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8015 TPH	BTEX					Remarks
MC-11	6-24	0930		Soil	1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-24	1240	[signature]	6-24-96	1240
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra	Project #:	04074-03
Sample ID:	MC - 11	Date Reported:	06-25-98
Laboratory Number:	D485	Date Sampled:	06-24-98
Chain of Custody:	6139	Date Received:	06-24-98
Sample Matrix:	Soil	Date Analyzed:	06-24-98
Preservative:	Cool	Date Extracted:	06-24-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**ND**	**10.8**
o-Xylene	**ND**	**5.2**
Total BTEX	**ND**	

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-84 USEPA, December 1996.

Comments:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	06-24-BTEX QA/QC	Date Reported:	06-25-98
Laboratory Number:	D474	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-24-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	2.4176E-01	2.4224E-01	0.2%	ND	0.2
Toluene	4.9646E-02	4.9795E-02	0.3%	ND	0.2
Ethylbenzene	4.1020E-02	4.1259E-02	0.6%	ND	0.2
p,m-Xylene	2.6433E-02	2.6620E-02	0.7%	ND	0.2
o-Xylene	3.0648E-02	3.0771E-02	0.4%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	8.8
Toluene	ND	ND	0.0%	0 - 30%	8.4
Ethylbenzene	ND	ND	0.0%	0 - 30%	7.6
p,m-Xylene	330	332	0.6%	0 - 30%	10.8
o-Xylene	ND	ND	0.0%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.5	99%	39 - 150
Toluene	ND	50.0	49.9	100%	46 - 148
Ethylbenzene	ND	50.0	49.6	99%	32 - 160
p,m-Xylene	330	100.0	429	100%	46 - 148
o-Xylene	ND	50.0	49.9	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples D474 - D477 and D482 - D485.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra	Project #:	04074-03
Sample ID:	MC - 11	Date Reported:	06-25-98
Laboratory Number:	D485	Date Sampled:	06-23-98
Chain of Custody No:	6139	Date Received:	06-23-98
Sample Matrix:	Soil	Date Extracted:	06-24-98
Preservative:	Cool	Date Analyzed:	06-24-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**12.4**	**0.1**
Total Petroleum Hydrocarbons	**12.4**	**0.2**

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:

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	06-24-TPH QA/QC	Date Reported:	06-25-98
Laboratory Number:	D482	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-24-98
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	04-28-98	2.3634E-02	2.2938E-02	**2.94%**	**0 - 15%**
Diesel Range C10 - C28	04-28-98	2.3141E-02	2.2455E-02	**2.96%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**0.9**	**0.9**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**13.5**	**13.3**	**1.8%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**0.9**	**250**	**250**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**13.5**	**250**	**263**	**100%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Wast SW-846, USEPA, December 1996.

Comments: **QA/QC for samples D474 - D477 and D482 - D485..**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

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

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-137
Originated 8/8/95

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to appropriate
District Office

APPLICATION FOR WASTE MANAGEMENT FACILITY

(Refer to the OCD Guidelines for assistance in completing the application)

XX Commercial ☐ Centralized

1. Type: ☐ Evaporation ☐ Injection XX Other Renewal
   ☐ Solids/Landfarm ☐ Treating Plant
2. Operator: Tierra Environmental Company, Inc.
   Address: P.O. Drawer 15250, Farmington, NM 87401
   Contact Person: Phillip C. Nobis Phone: 505-334-8894
3. Location: NW /4 SE /4 Section 0 Township 29 Range
   Submit large scale topographic map showing exact location
4. Is this a modification of an existing facility? ☐ Yes XX No
5. Attach the name and address of the landowner of the facility site and landowners of record within one mile of the site.
6. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
7. Attach designs prepared in accordance with Division guidelines for the construction/installation of the following: pits or ponds, leak-detection systems, aerations systems, enhanced evaporation (spray) systems, waste treating systems, security systems, and landfarm facilities.
8. Attach a contingency plan for reporting and clean-up for spills or releases.
9. Attach a routine inspection and maintenance plan to ensure permit compliance.
10. Attach a closure plan.
11. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact groundwater. Depth to and quality of ground water must be included.
12. Attach proof that the notice requirements of OCD Rule 711 have been met.
13. Attach a contingency plan in the event of a release of H_2S.
14. Attach such other information as necessary to demonstrate compliance with any other OCD rules, regulations and orders.
15. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Phillip C. Nobis Title: President

Signature: [signature] Date: 6/15/98

TIERRA ENVIRONMENTAL COMPANY, INC.
P.O. Drawer 15250
Farmington, New Mexico 87401
Phone 505-334-8894 Fax 505-334-9024
E-Mail teci@cyberport.com

June 15, 1998

Martyne J. Kieling, Geologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: PERMIT RENEWAL APPLICATION, CLOSURE COST ESTIMATE AND BOND REQUIREMENT:

Dear Ms. Kieling:

On September 26, 1997, you on behalf of the OCD sent me a letter regarding deficiencies noted in a previous inspection and requirements for permit renewal. On October 1, 1997 I responded to that letter and asked several questions. (Copies of both letters attached) To date I have received no response. Therefore because the Tierra Permit expires on July 15, 1998, I am submitting the renewal application with out the benefit of the information and clarifications I had asked for.

Tierra Environmental Company, Inc. has received several permit modifications over the past five years and we request those modifications to be included within the new permit.

1. Recycling of Drilling Mud used to line our two run off retention impoundments
2. Acceptance and mixing of tank bottoms and sludge.
3. Authority to apply certain types of produced water for moisture and dust control
4. Alliance Agreement with Sunco/Key Four Corners
5. Landfarm Expansion to include an additional 56 acres

There has been some confusion over what the real conditions of the present Tierra Permit are. The permit which we are following is the one which was issued following our expansion and expires in July of 1998. It refers to Order R-9772 as amended (exhibit B). We have been required according to Exhibit B to establish a monitor zone not more that three feet below the surface and to sample quarterly for BTEX and TPH using approved OCD "field" methods to cells where in artificial moisture has been added and annually we are required to submit a laboratory analysis for BTEX,TPH, General Chemistry and Metals. We see no reason to change that requirement. The landfarm has been in operation for over five years and we have yet to detect any problem.

Before proceeding with the closure cost estimate for the bonding requirement I will bring the following information to your attention. Tierra Environmental Company owns the land upon which the landfarm is located. It will not be put back to it's natural state at closure. The berms are part of a terrace system which was designed to direct and control run off upon the property and will be left in place. The reason therefore is so that when the property is subdivided proper drainage will not have to be re constructed. The cost of construction of the terrace system including those berms which are really dikes designed and built to engineering standards was over $ 150,000.00. It would cost almost that much to dismantle them and again that much to re construct them.

As another point of information, the bulk of the material we receive at the landfarm based on our five plus years of experience remediates rather quickly. Therefore there is nothing on the landfarm that could not be remediated within a one year time frame. Any material that does not meet standards at the time of final closure will be diluted with already remediated material or clean backfill, until it does meet the standard. That time frame is what the cost estimate is based upon, one year or less.

The Tierra Landfarm consists of approximately 86 Acres of which approximately 72 acres are presently developed and in use. At capacity the landfarm at any one time can hold about fifty-thousand cubic yards of material in approximate six inch lifts. Remediation is accomplished by working the soil with a farm tractor equipped with a harrow and disc. By working the soil it remains oxygenated thereby enhancing the activity of natural occurring aerobic microbial organisms which digest the hydrocarbons and produce carbon dioxide. Natural occurring precipitation has been sufficient to maintain about a seventeen percent moisture content in the soil that is being remediated. Annual laboratory and quarterly field testing have not detected any subsurface migration of contaminants. The soil composite of the landfarm surface is a heavy clay/sand mixture, unlike some other farms located in this part of the state e.g. Envirotech which is built on blow sand. Therefore we cannot justify expensive quarterly testing by a laboratory in lieu of the field testing that we have been preforming.

Our net profit for the fiscal year 1997 was less than $ 3,000.00. The additional cost of quarterly laboratory testing and the proposed increase in bonding requirements based on the OCD formula would substantially exceed that net profit figure. There have been no environmental problems at this facility during the past five years and our remediation system including the processing and remediation of tank bottoms and sludges, seems to be working quite well. Therefore, Tierra as a business cannot justify a substantial cost increase to our clients in order to defray these additional expenses proposed by the OCD. We would rather use that money and incur some long term debt to make our process more efficient and thereby more environmentally friendly. As an example, with our recent alliance with Key Four Corners a.k.a. Sunco, we now have the ability to more efficiently dispose of excess wastewater contained within the tank bottoms and sludges we receive and process. In lieu of using rental frac tanks and storing sludges until they can be mixed, we are going to propose to OCD the construction of two additional cement mixing impoundments quite

similar in size and design to the one we presently have. The material received can then be off loaded into those impoundments, flocked and allowed to settle. (Covered with netting of course) The excess water can then be removed and disposed of at Sunco Disposal. The remaining sludge can then be easily mixed and land farmed. The cost involved for construction of the two additional impoundments would be about $ 20,000.00. The cost savings by eliminating the frac tank rental, the additional mixing time and additional backfill required for the mixing would increase net profit so that over a three year period the improvements would pay out. The end result would mean less and dryer material spread upon the landfarm as a result of processing tank bottoms and sludges. Also translating into further reducing the potential for any subsurface migration of contaminants.

The following is the cost estimate for final closure of the Tierra Landfarm.

1. Tractor Operator 24 hrs every two weeks @ $ 8.50 per hour for one year	$ 5,304.00
2. Tractor and equipment rental 24 hrs every two weeks @ 20.00 per hour for one year	$ 11,700.00
3. Final Closure analysis for fourteen cells; / Quarterly Monitoring	
TPH @ $ 65.00 x 14	$ 910.00
BTEX @ $ 105.00 x 14	$ 1,470.00
4. Final subsurface analysis	
TPH @ $ 65.00 x 14	$ 910.00
BTEX @ $ 105.00 x 14	$ 1,470.00
Metals @ $ 100.00 x 14	$ 1,400.00
5. Environmental Specialist conducting intermediate field sampling, final Closure samples and writing final closure Report 20 hrs @ $ 58.00 per hr.	$ 1,160.00
6. Fencing will remain in place	0
8. Terrace will remain in place	0
Seeding ~	
Sub Total	$ 24,232.00
And because I realize that nothing is written in stone; contingencies @ 15%	$ 3,634.80
Total	$ 27,866.80

Tierra would propose a bond increase of $ 5000.00 from our present $ 25,000.00 to $ 30,000.00 and pursuant to the new 711 Rules be allowed one year to meet that requirement. When I hear from you relative to what the actual bond requirement will be, I will then obtain the bond and forward it to OCD. I cannot at this time anticipate whether or not OCD will accept my proposed $ 30,000.00 or require some other figure.

On or before July 15, 1998 the date our permit expires I will submit to you the annual sub surface analysis.

Please contact me if you have any questions or require more information.

Sincerely,

Phillip C. Nobis
President

(Enclosures)

xc: D Foust Aztec OCD
TECI Legal Advisor
Landfarm File

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

June 2, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-442

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Approval To Recycle Soil

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental Company's, Inc. (Tierra) letter of May 26, 1998 and has reviewed the analytical data concerning remediated soils within Cell-11. Tierra's request to recycle approximately 1,350 cubic yards of soil located in Cell-11 all generated by PNM Gas Services is hereby approved with the following recycling uses:

1. Stabilizing tank bottoms;
2. Soil backfill for oil and gas projects such as refilling pits and building berms;
3. Road base construction material.

Application of these soils in the approved projects listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-11 for any other use than those approved here separate OCD authorization must be granted.

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

If you have any further questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

May 26, 1998

Martyne J. Kieling
NMOCD
2040 South Pacheco
Sante Fe, New Mexico 87505

RE: RECYCLING OF SOILS OBTAINED JANUARY 1996

Dear Ms. Kieling,

The following is request to recycle soils obtained from PNM Gas Services. These soils were from a single line drip blowdown (light end) and consisted of approximately 1350 cubic yards. Tierra would like to use these soils for oilfield backfill, mixing tank bottoms or road fill material.

The soils requested for recycling have not been co-mingled with any other job and are currently in cell #11.

Tierra respectfully requests approval for this project as the analysis indicates the TPH and BTEX levels are within the acceptable limits. The analytical results are enclosed.

Sincerely,
Tim Nobis

Environmental Specialist

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

May 15, 1998

Mr. Phil Nobis
Tierra Environmental Services, Inc.
P.O. Drawer 15250
Farmington, New Mexico 87499

Project No.: 04074-03

Dear Mr. Nobis,

Enclosed are the analytical results for the sample collected from the location designated as "Tierra Landfarm". One soil sample was collected by Tierra Environmental designated personnel on 05/14/98, and received by the Envirotech laboratory on 05/14/98 for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) analysis per USEPA Method 8021, and for Total Petroleum Hydrocarbons (TPH) analysis per USEPA Method 8015, Modified.

The sample was documented on Envirotech Chain of Custody No. 5895 and assigned Laboratory No. D270 (C11) for tracking purposes.

The sample was extracted and analyzed on 05/14/98 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It is always a pleasure doing business with you.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enc.

SWS\sws

04074/04074-03.l14/wpd

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074-03
Sample ID:	C11	Date Reported:	05-14-98
Laboratory Number:	D270	Date Sampled:	05-14-98
Chain of Custody:	5895	Date Received:	05-14-98
Sample Matrix:	Soil	Date Analyzed:	05-14-98
Preservative:	Cool	Date Extracted:	05-14-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**ND**	**10.8**
o-Xylene	**ND**	**5.2**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

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-84 USEPA, December 1996.

Comments: **Tierra Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	05-14-BTEX QA/QC	Date Reported:	05-14-98
Laboratory Number:	D270	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-14-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.1478E-02	1.1490E-02	0.1%	ND	0.2
Toluene	1.2473E-02	1.2535E-02	0.5%	ND	0.2
Ethylbenzene	2.5410E-02	2.5615E-02	0.8%	ND	0.2
p,m-Xylene	2.1175E-02	2.1389E-02	1.0%	ND	0.2
o-Xylene	1.8658E-02	1.8827E-02	0.9%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	8.8
Toluene	ND	ND	0.0%	0 - 30%	8.4
Ethylbenzene	ND	ND	0.0%	0 - 30%	7.6
p,m-Xylene	ND	ND	0.0%	0 - 30%	10.8
o-Xylene	ND	ND	0.0%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	100%	39 - 150
Toluene	ND	50.0	49.8	100%	46 - 148
Ethylbenzene	ND	50.0	49.7	99%	32 - 160
p,m-Xylene	ND	100.0	99.3	99%	46 - 148
o-Xylene	ND	50.0	49.9	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples D270 - D274.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074-03
Sample ID:	C11	Date Reported:	05-14-98
Laboratory Number:	D270	Date Sampled:	05-14-98
Chain of Custody No:	5895	Date Received:	05-14-98
Sample Matrix:	Soil	Date Extracted:	05-14-98
Preservative:	Cool	Date Analyzed:	05-14-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**8.2**	**0.2**
Diesel Range (C10 - C28)	**3.7**	**0.1**
Total Petroleum Hydrocarbons	**11.9**	**0.2**

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: **Tierra Landfarm.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified

Nonhalogenated Volatile Organics

Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-14-TPH QA/QC	Date Reported:	05-14-98
Laboratory Number:	D270	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-14-98
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	04-28-98	7.0961E-02	7.0961E-02	**0.00%**	**0 - 15%**
Diesel Range C10 - C28	04-28-98	3.2920E-02	3.2954E-02	**0.10%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**8.2**	**8.1**	**0.8%**	**0 - 30%**
Diesel Range C10 - C28	**3.7**	**3.7**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**8.2**	**250**	**258**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**3.7**	**250**	**253**	**100%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Wast SW-846, USEPA, December 1996.

Comments: **QA/QC for sample D270.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5895

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
Tierra Environmental	Tierra Landfarm	
Sampler: (Signature)	Chain of Custody Tape No.	
	04074-03	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8015 TPH	BTEX					Remarks
C11	5-14-98	8:30	D270	soil		✓	✓					
						sample received cool & intact						

Relinquished by: (Signature)	Date	Time	Received by (Signature)	Date	Time
	5-14-98	8:45		5.14.98	08:45
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

Martyne Kieling

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

INCIDENT/SPILL REPORT

April4, 1998

On April 4, 1998, at approximately 9:30 am, Cruz Trucking mistakenly unloaded 4 truckloads of contaminated soil (40 yards) that was destined for EPC. At the time that this occurred, there were also other Cruz trucks hauling to Tierra's facility for PNM Gas Services from the Randalman #1 location. Cruz Trucking was notified, and together with EPC personnel, they removed the soil from Tierra's facility to EPC's. The soils were relocated to EPC by 11:00 am. At the time of the incident, attempts were made to report the incident to Denny Foust of OCD. Contact was made with OCD at 1:45 pm and the incident was reported.

Reported by:

Tim Nobis
Environmental Specialist

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 2, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-390

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Approval To Recycle Soil

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD), has received Tierra Environmental Company's, Inc. (Tierra) letter of January 26, 1998 and has reviewed the analytical data concerning remediated soils within Cell-8, 9, and 10. Tierra's request to recycle approximately 2,000 cubic yards of soil located in Cell-8, 3000 cubic yards of soil located in Cell-9, 500 cubic yards of soil located in Cell-10 all generated by El Paso Natural Gas Company is hearby approved with the following recycling uses:

1. Stabilizing tank bottoms;
2. Soil backfill for oil and gas projects such as refilling pits and building berms;
3. Road base construction material.

Application of these soils in the approved projects listed above must not result in run-off into any waters of the U.S. If Tierra wants to move the soils from Cell-8, 9, and 10 for any other use than those approved here separate OCD authorization must be granted.

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

If you have any further questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist
xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

January 26, 1998

Roger Anderson
NMOCD
2040 S. Pacheco
Santa Fe, N.M. 87505

RE: RECYCLING OF SOILS OBTAINED FROM SEPTEMBER 1994 TO JUNE 1995.

Dear Mr. Anderson,

The following is a proposal to recycle soils obtained from El Paso Natural Gas Co. These soils were from various line drip blowdown (light Ends) and consist of approximately 5500 cubic yards in three combined cells.

Tierra would like to gather and use these soils and use them for stabilizing tank bottoms and reapplying them to our landfarm. Basin disposal has in the past used our remediated backfill to stabilize the tank bottoms at their facility and would like to continue their operations in the same manner. Tierra would also, like to use these remediated soils for backfill use in the oilfield for refilling pits, berms and roadways (roadbase type material).

The soils proposed consist of three combined cells. These soils were obtained from El Paso and are the only source of contaminated soils within these particular cells. There has been no co-mingling from other related jobs.
The three cells and the approximate yardage per cell is as follows:

1). Cell # 8 - approximately 2000 cubic yards
2). Cell # 9 - approximately 3000 cubic yards
3(. Cell # 10 - approximately 500 cubic yards

Tierra respectfully requests approval for this project as the analysis indicate the TPH and BTEX levels are within the acceptable limits. The TPH and BTEX analysis results are enclosed.

Sincerely,

Blaine Williams
Environmental Specialist

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No: 13264

page 1 of 1

Client Name: [illegible]

Address/Phone: [illegible]

Client Contact: [illegible]

Project Name: [illegible]

Project Number:

Project Location:

Invoice To:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water SL=sludge S=soil O=other:)	bottle (P=plastic G=glass A=amber glass V=vial)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz)	pres. (1=HCl 2=HNO3 3=H2SO4 O=other:)	Number of Containers	Requested Analysis: BTEX	Requested Analysis: 8015
#8	1-8	1030	X		S	G	8		1	1	1
#9	1-8	1040	X		S	G	8		1	1	1
#10	1-8	1100	X		S	G	8		1	1	1

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N

Temp:

Requested TAT

24hr ☐ 72hr ☐

48hr ☐ Standard ☐

Other ☐ _____

Special Reporting Requirements: Fax Results ☐ Raw Data ☐ Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler: [illegible]	1-8 98	1228	2. Received by: [illegible]
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive, Houston, TX 77054 (713) 660-0901

☐ 459 Hughes Drive, Traverse City, MI 49684 (616) 947-5777

☐ 500 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237-4775

☐ 1511 E. Orangethorpe Avenue, Fullerton, CA 92631 (714) 447-6868

FARMINGTON LABORATORY
P.O. BOX 1289
FARMINGTON, NEW MEXICO 87499-1289
PHONE (505) 326-2588

Certificate of Analysis No. 9801029-01

Tierra Environmental Company, Inc.
PO Drawer 15250
Farmington, NM 87401
Attn: Blaine Williams

Date: 01/22/98

Project:	TECI	Project No:	
Site:		Matrix:	Soil
Sampled By:	B. Williams	Date Sampled:	01/08/98
Sample ID:	#8	Date Received:	01/08/98

Analytical Data

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	ND	1.0	µg/Kg
Toluene	ND	1.0	µg/Kg
Ethylbenzene	ND	1.0	µg/Kg
Total Xylene	ND	1.0	µg/Kg
Total Volatile Aromatic Hydrocarbons	ND		µg/Kg
Surrogate	**% Recovery**		
1,4,Difluorobenzene	100		
4-Bromofluorobenzene	73		
Method 8020			
Anayzed by: FAB			
Date: 01/15/98			
Total Petroleum Hydrocarbons-Diesel	ND	10.0	mg/Kg
Surrogate	***% Recovery***		
n-Pentacosane	94		
Method Modified 8015A for Diesel			
Anayzed by: RR			
Date: 01/16/98			
Gasoline Range Organics	ND	1.0	*mg/Kg*
Surrogate	**% Recovery**		
4-Bromofluorobenzene	97		
1,4-Difluorobenzene	100		
Method 8015A*** for Gasoline			
Anayzed by: SB			
Date: 01/15/98			

ND- Not detected

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solis Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Danica Carman, Lab Director

FARMINGTON LABORATORY
P.O. BOX 1289
FARMINGTON, NEW MEXICO 87499-1289
PHONE (505) 326-2588

Certificate of Analysis No. 9801029-02

Tierra Environmental Company, Inc.
PO Drawer 15250
Farmington, NM 87401
Attn: Blaine Williams

Date: 01/22/98

Project:	TECI	Project No:	
Site:		Matrix:	Soil
Sampled By:	B. Williams	Date Sampled:	01/08/98
Sample ID:	#9	Date Received:	01/08/98

Analytical Data

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	ND	1.0	µg/Kg
Toluene	ND	1.0	µg/Kg
Ethylbenzene	ND	1.0	µg/Kg
Total Xylene	ND	1.0	µg/Kg
Total Volatile Aromatic Hydrocarbons	ND		µg/Kg
Surrogate	**% Recovery**		
1,4,Difluorobenzene	100		
4-Bromofluorobenzene	67		
Method 8020			
Anayzed by: FAB			
Date: 01/15/98			
Total Petroleum Hydrocarbons-Diesel	ND	10.0	mg/Kg
Surrogate	**% Recovery**		
n-Pentacosane	108		
Method Modified 8015A for Diesel			
Anayzed by: RR			
Date: 01/16/98			
Gasoline Range Organics	ND	1.0	mg/Kg
Surrogate	**% Recovery**		
4-Bromofluorobenzene	77		
1,4-Difluorobenzene	117		
Method 8015A*** for Gasoline			
Anayzed by: SB			
Date: 01/15/98			

ND- Not detected

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solis Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Danica Carman, Lab Director

FARMINGTON LABORATORY
P.O. BOX 1289
FARMINGTON, NEW MEXICO 87499-1289
PHONE (505) 326-2588

®Certificate of Analysis No. 9712024-03

Tierra Environmental Company, Inc.
PO Drawer 15250
Farmington, NM 87401
Attn: Blaine Williams

Date: 01/22/98

Project:	TECI	Project No:	
Site:		Matrix:	Soil
Sampled By:	B. Williams	Date Sampled:	01/08/98
Sample ID:	#10	Date Received:	01/08/98

Analytical Data

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	ND	1.0	µg/Kg
Toluene	ND	1.0	µg/Kg
Ethylbenzene	ND	1.0	µg/Kg
Total Xylene	ND	1.0	µg/Kg
Total Volatile Aromatic Hydrocarbons	ND		µg/Kg
Surrogate	**% Recovery**		
1,4,Difluorobenzene	100		
4-Bromofluorobenzene	70		
Method 8020			
Anayzed by: FAB			
Date: 01/15/98			
Total Petroleum Hydrocarbons-Diesel	ND	10.0	mg/Kg
Surrogate	**% Recovery**		
n-Pentacosane	88		
Method Modified 8015A for Diesel			
Anayzed by: RR			
Date: 01/16/98			
Gasoline Range Organics	ND	1.0	mg/Kg
Surrogate	**% Recovery**		
4-Bromofluorobenzene	70		
1,4-Difluorobenzene	137		
Method 8015A*** for Gasoline			
Anayzed by: SB			
Date: 01/15/98			

ND- Not detected

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solis Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Danica Carman, Lab Director

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

November 19, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-366

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Approval To Recycle Soil

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD), has received Tierra Environmental Company's (Tierra) letter of November 4, 1997 and has reviewed the analytical data concerning remediated soils within Cell #7. Tierra's request to recycle approximately 2,000 cubic yards of soil located in Cell #7 generated by El Paso Natural Gas Company is hearby approved with the following condition: 1) that the soils to be recycled will be used for sludge mixing and/or backfill for oil and gas projects.

If you have any further questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

November 4, 1997

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REQUEST FOR APPROVAL TO RECYCLE SOIL

Dear Mr. Anderson:

On behalf of Tierra Environmental Company, Inc., I hereby request authorization to recycle the following soils presently located in Cell # 7 on the Tierra Crouch Mesa Landfarm.

Approximately 2,000 cubic yards of soil received from El Paso Natural Gas Company between 9/01 and 9/22/94 from their major pit closure project.

Accompanying this request are the analytical results from analysis conducted by Envirotec Laboratories on composite samples taken from the above mentioned soil for Total Petroleum Hydrocarbons (TPH) and BTEX.

The analytical data indicates that the soils have been cleaned up and now meet NMOCD standards of less than 100 ppm TPH and less than 50 ppm BTEX.

TPH	24.6	mg/kg
B	ND	
T	ND	
E	8.2	ug/kg
X	18.7	ug/kg

The soils will be used for sludge mixing and/or backfill for oil and gas projects.

If you have any questions or require additional information please call me.

Sincerely,

Blaine Williams
Environmental Specialist

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

October 31, 1997

Mr. Phil Nobis
Tierra Environmental Services, Inc.
P.O. Drawer 15250
Farmington, New Mexico 87499

Project No.: 04074-03

Dear Mr. Nobis,

Enclosed are the analytical results for the sample collected from the location designated as "Tierra 7A". One soil sample was collected by Tierra Environmental Services personnel on October 29, 1997, and received by the Envirotech laboratory on October 29, 1997 for Total Petroleum Hydrocarbons (TPH) analysis per USEPA Method 8015, Modified, and for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) per USEPA Method 8020.

The sample was documented on Envirotech Chain of Custody No. 5548 and assigned Laboratory No. C376 for tracking purposes. The sample was analyzed on 10/29/97 and 10/30/97 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615, and it is always a pleasure doing business with you.

Respectfully submitted,
Envirotech, Inc.

Stacy W Sendler

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enc.

SWS/sws/04074-03.lb9/wpd

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074-03
Sample ID:	Tierra 7A	Date Reported:	10-30-97
Laboratory Number:	C376	Date Sampled:	10-29-97
Chain of Custody:	5548	Date Received:	10-29-97
Sample Matrix:	Soil	Date Analyzed:	10-30-97
Preservative:	Cool	Date Extracted:	10-29-97
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**ND**	**8.4**
Ethylbenzene	**8.2**	**7.6**
p,m-Xylene	**22.0**	**10.8**
o-Xylene	**18.7**	**5.2**
Total BTEX	**48.9**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-30-97
Laboratory Number:	10-30-BTEX.BLANK	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-30-97
Condition:	N/A	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	**ND**	**0.2**
Toluene	**ND**	**0.2**
Ethylbenzene	**ND**	**0.2**
p,m-Xylene	**ND**	**0.2**
o-Xylene	**ND**	**0.1**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**100 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
USEPA, Sept. 1994.

Comments: **QA/QC for samples C376 - C378.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-30-97
Laboratory Number:	C376	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	10-30-97
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Sample Result (ug/Kg)	Duplicate Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Difference
Benzene	**ND**	**ND**	**8.8**	**0.0%**
Toluene	**ND**	**ND**	**8.4**	**0.0%**
Ethylbenzene	**8.2**	**8.1**	**7.6**	**1.0%**
p,m-Xylene	**22.0**	**21.8**	**10.8**	**0.8%**
o-Xylene	**18.7**	**18.6**	**5.2**	**1.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8020 Compounds	**30 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples C376 - C378.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-30-97
Laboratory Number:	C376	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	10-29-97
Condition:	Cool and Intact	Date Analyzed:	10-30-97

Parameter	Sample Result (ug/Kg)	Spike Added (ug/Kg)	Spiked Sample Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	**ND**	**50.0**	**49.3**	**8.8**	**99%**	**39-150**
Toluene	**ND**	**50.0**	**56.9**	**8.4**	**98%**	**46-148**
Ethylbenzene	**8.2**	**50.0**	**57.0**	**7.6**	**98%**	**32-160**
p,m-Xylene	**22.0**	**100**	**121**	**10.8**	**99%**	**46-148**
o-Xylene	**18.7**	**50.0**	**67.9**	**5.2**	**99%**	**46-148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples C376 - C378.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074-03
Sample ID:	Tierra 7A	Date Reported:	10-29-97
Laboratory Number:	C376	Date Sampled:	10-29-97
Chain of Custody No:	5548	Date Received:	10-29-97
Sample Matrix:	Soil	Date Extracted:	10-29-97
Preservative:	Cool	Date Analyzed:	10-29-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**24.6**	**0.1**
Total Petroleum Hydrocarbons	**24.6**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organic Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	10-29-97
Laboratory Number:	10-29-TPH.BLANK	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-29-97
Condition:	N/A	Analysis Requested:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for samples C313 - C316 and C376.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	10-29-97
Laboratory Number:	C313	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	10-29-97
Condition:	Cool and Intact	Analysis Requested:	TPH

Parameter	Sample Result (mg/Kg)	Duplicate Result (mg/Kg)	Percent Difference
Gasoline Range (C5 - C10)	**ND**	**ND**	**0.0%**
Diesel Range (C10 - C28)	**63.1**	**61.6**	**2.5%**
Total Petroleum Hydrocarbons	**63.1**	**61.6**	**2.5%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Max Difference
	Petroleum Hydrocarbons	**30%**

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for samples C313 - C316 and C376.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Hydrocarbons
Total Petroleum Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	10-29-97
Laboratory Number:	C313	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	TPH	Date Analyzed:	10-29-97
Condition:	N/A		

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked Sample Result (mg/kg)	Det. Limit (mg/kg)	Percent Recovery
Gasoline Range (C5 - C10)	**ND**	**250**	**249**	**0.2**	**100%**
Diesel Range (C10 - C28)	**63.1**	**250**	**311**	**0.1**	**99%**
Total Petroleum Hydrocarbons	**63.1**	**500**	**560**	**0.2**	**99%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range
	Petroleum Hydrocarbons	**75 - 125%**

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **QA/QC for samples C313 - C316 and C376.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5548

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
Tierra Environmental		
Sampler (Signature)	Chain of Custody Tape No.	
	04074-03	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX	TPH					Remarks
Tierra 7A	10-29	1030	C3746	Soil	1	✓	✓					
			Sample received cool & intact - CP									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/29	1050	Mista Waeto	10/29/97	10:50
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

Field Trip Report for FOUST

10/23/97

Non-UIC Inspection Results:

BASIN DISPOSAL TESTED LEAK DETECTION SUMP FLUID WITH CONDUCTIVITY METER, MEASUREMENTS ARE TEMP 17 DEGREES C, SALINITY 3%, CONDUCTIVITY 500 MICRO UHOS. PND WATER 20 DEGREES C, SALINITY 12%, CONDUCTIVITY 2,000 MICRO UHOS. KEITH JOHNSON IS FOLLOWING UP ON 20 CERTIFICATE OF WASTE STATUS FOR OCTOBER. TIERRA IS STORING SOME NON-OILFIELD WASTE FROM AN EMERGENCY IN BARRELS WAITING ON ANALYSIS FOR PROPER DISPOSAL. AN EMERGENCY WAS DECLARED BY DPS. SUNCO LACKS APPROX 8 CERTIFICATES OF WASTE STATUS FOR OCTOBER. LEAK DETCTION WATER IS 20 DEGREES C, SALINITY 9%, CONDUCTIVITY IS 14,700 MICRO UHOS. POND WATER IS 11.5 DEGEES C, 12.5% SALINITY AND CONDUCTIVITY 15.500 MICR UHOS. SIMILARITY OF THESE WATERS IS RELATED TO SEVERAL LEAKS WHICH WERE REPAIRED IN 1996.

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

October 1, 1997

Ms. Martyne J. Kieling
Environmental Geologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: INSPECTION REPORT and PERMIT RENEWAL CLARIFICATION, TIERRA ENVIRONMENTAL LANDFARM (NM-01-0010)

Dear Ms. Kieling:

I am in receipt of your letter of September 26, 1997 and the attachments. Before filing the renewal application and the required other information, I would like to clarify some of the points you made in the attachments.

Attachment 1

Paragraph 2, Berms

The berms you refer to are actually "dikes" built to engineering standards and are compacted to over 90%. The total landfarm design was created by two excellent engineers, Richard P. Cheney PE and Connie Dinning PE. The designs purpose is to collect rainwater not segregate cells per se. Your pictures depict that water had collected on the driveways between each job. (There may be several jobs in one cell) The water then travels down the driveways which are of lower elevation than the jobs. This is also part of the landfarm design. The water then collects at one of the several dikes and is either allowed to evaporate or in the case of substantial precipitation is pumped out into either a water truck or frac tank and is then used to add additional moisture to the landfarm later on when necessary. Prior to being land applicated the water is treated with a 4% solution of potassium permanganate. Another purpose of the design is so that the maximum amount of moisture can be maintained upon the landfarm, without excessive pooling. Very little if any commingling occurs. Please keep in mind that this landfarm is operated differently than other landfarms you may have observed and further that the "No Commingle Rule" is a Tierra Environmental Company, Inc. Mandate, not OCD's. For example Envirotech dedicates specific cells for each client and puts all of the material they receive from a particular client into the same cell usually without segregation. They separate their cells with berms constructed of un compacted blow sand. We do not. We separate each job by job number. Each job is separated

from the next within a particular cell by a drive way. No commingling of soil occurs. Larger drive ways separate cells and are designed to carry the

water down slope into the dikes and away from the contaminated material. It has worked quite well. Your pictures 5 & 6 show that pretty clearly. Therefore unless it can be demonstrated that there is a regulation or OCD rule that we must construct additional berms and dikes, I would object to doing so and therefore do not consider the recommendation to construct additional berms / dikes a deficiency.

Paragraph 3 Setbacks:

The plat identifying the cells on both the upper and lower portion of the landfarm are on file with the OCD. Therefore I would assume that the setback requirements do not apply unless Tierra should apply for additional expansion of the facility that is not currently under permit. D. Foust Aztec OCD Office is under the impression that when a cell has been remediated and the material removed that the setback requirement then comes into play. I would like clarification. As a point of information a whole cell is seldom remediated at the same time. Further as to the setback requirements for pipelines, is this a regulation, law or rule ? Highways are built over pipelines. Pipelines share rights of way with other utilities, including above ground utilities. Farmers grow hay, grain and other crops over pipelines. In those cases technology is available to the oil and gas pipeline operators which includes a product called "Techsent" for locating leaks, vented monitor devices etc. OCD has approved our landfarm design and land use. What has changed ?

Reference pipelines crossing the facility should have surface markers. They do. However the marking is the responsibility of the pipeline operator not that of Tierra.

Paragraph 4 Soil Spreading, Discing and Lift Thickness

I again ask the question with regard to the 72 hour requirement, is receipt of soil complete when the last load from a particular job is received or is the OCD saying they must be spread after each truckload arrives ?

With regard to Pictures 5 and 6, the soil in picture 6 has long since been spread. It was not the soil referred to by Frank Chavez in his report. That soil he referred to has been spread and was being spread at the time of his inspection. The soil depicted in photograph 5 is stockpiled clean backfill. Also the material depicted in photograph 1 although not mentioned is also remediated soil that has been stockpiled for use as backfill for oil and gas projects. It was at the time and is presently being hauled by Basin Disposal as mix for their sludges.

I will also again comment on the 72 hour requirement and the 6" lift requirement. I do not agree that the two requirements are to be interpreted as synonymous. The material is delivered in a

heap or heaps and is worked and spread with a loader to a depth which is then workable with a farm tractor and disk or harrow. (We use a harrow most of the time as it works more efficiently than a disk especially in rocky soil.) The soil is then tilled, not necessarily disced into an approximate 6" lift. The six inch lift is accomplished over a period of time. (Sticky material being the biggest exception.) I will address sticky soil later in the proposed updated waste management plan to be submitted with the permit renewal application. Therefore I believe that the permit should read; " soil will be spread within 72 hours of receipt (after receipt is interpreted) weather permitting". "The soil shall be "tilled" (not disced) into approximately six inch lifts". In a cell where soil is being tilled shortly after it has been spread with the loader, the total depth may not meet a "white glove" measurement of 6". That was the case during the inspection conducted by Frank Chavez.

Is there any written justification for the 6" lift or less ? Most literature available on the subject speak of 12 - 18 inch lifts. One of the principal reasons for the larger lifts is the retention of moisture, which based on available literature and our own experience is one of the greatest assets in the remediation process. We have successfully remediated several thousand cubic yards of soil, as our OCD file reflects. Therefore our experience should account for something.

Paragraph 5 Treatment Zone Monitoring

This has been a very confusing issue for us to deal with as we have had a hearing and subsequent order, a preceding order and then I believe although I am not sure exhibit B is as yet another order resulting from the hearing. I believe that it is the one that say's in substance that cells where additional moisture has been added will be tested quarterly for TPH using approved OCD field methods. There has been no additional moisture added to the landfarm for quite some time, it has not been necessary. The exception being we do water the roads in the summer time which has been the only source of blowing dust. Our water management practices have worked well. . The orders etc. do not all say the same thing. Additionally we have on file still another order governing the operations of a Lea County Landfarm that OCD is aware was never opened by Tierra but sold by us to another company. It's language is different still. Tierra has no problem with furnishing test results in the future including on a quarterly basis. However I do question the necessity for general chemistry and heavy metals to be run quarterly. What basis has the OCD used for believing the additional testing quarterly for heavy metals and general soil chemistry is justifiable and will further protect the environment ? All non-hazardous, non-exempt material for the most part is tested for metals and must pass prior to OCD approval and landfarm acceptance. The only exception would be a fresh product such as compressor oil that has not been used in an engine. In that case usually an MSDS Sheet is sufficient. What evidence or information does OCD have in it's possession that would indicate heavy metals would be present in exempt waste ? If such information does exist, as an operator of a facility that manages that type of waste I need to know. OCD may not require further testing of exempt waste, but if the information is credible that exempt waste may contain heavy metals Tierra may require additional testing.

In the past a Hanby or other OCD approved field test was sufficient for quarterly TPH

Monitoring as well as a PID or OVM for BTEX. Annual samples were actual laboratory analysis. Will the Hanby or other OCD approved method for TPH and a PID or OVM for BTEX still be accepted for quarterly reporting ? What type of analysis is going to be required for heavy metals ? Are all landfarms both commercial 711, Centralized Facilities and individual in-situ landfarms going to be required to preform this costly analysis quarterly ?

Paragraph 7 Trash and Potentially Hazardous Materials:

From time to time trash in the form of wood, metal fittings etc. does come into the landfarm and yes we can do a better job of policing it. The trash referred to has been removed.

Paragraph 9 Above Ground Tanks

The sludge holding tanks referred to are rented "Frac Tanks". They are portable and are taken in and out of the landfarm holding area as is needed. In your presence during the inspection conducted, OCD Bureau Chief Roger Anderson responded to your question regarding the tanks, stating that they were portable temporary storage and did not require berms. With regard to the green lay down tank, it is presently not in operation. When we do place it in operation again OCD will be notified of it's placement on the landfarm and how it is bermed. One further comment regarding the temporary tanks, the landfarm is bermed, diked and completely self contained. We are capable of containing any spill with in the confines of our property and remediating the result including a spill from one of two well locations and tank battery located upon our property. This is a landfarm.

Paragraph 10. Drum Storage

The empty drums stockpiled with in the berm at our staging area are inventory. They are used by us when we mix chemical e.g. KMNO4 in a 4% solution to either sell to a client or take to the field for our own use. Some used motor oil resulting from equipment maintenance was stored within the bermed area referred to. Please send me the regulation requiring them to be stored otherwise. The oil is collected and then taken to an oil recycler. The bermed area is constructed of compacted clay.

Paragraph 11. Above ground saddle tanks

We have one above ground saddle tank, (portable farm/ construction type). It belongs to Graves Oil Company and is not a permanent fixture. I believe it is exempt from that requirement.

Paragraph 12. Tank Labeling

The Saddle tank has a sticker on the side of the tank indicating it contains Diesel Fuel.

The portable frac tanks are not labeled. What are the hazardous constituents of "Non-Hazardous

or Exempt Oilfield Waste" ? Flammable ? Sometimes they may be but not always. As we are not required to have an analysis on each load of sludges we receive and there is no MSDS information except for some additive they may have been treated with, what information should be on the label ?

Paragraph 13 Housekeeping

As is required in our permit the entire facility is required to be checked once a week, that includes the spill prevention and collection facilities. Records concerning those inspections as required by the permit are on file at this office and were offered to you and Roger Anderson for your review at the time of your inspection.

The deficiencies noted have been corrected as was reported to you following the Notice of Violation and subsequent Clarification.

Paragraph 15 NORM

Can this declaration be included on the "Certificate of Waste Status" presently being used by Commercial Facilities in Northern New Mexico ?

With regard to the deficiencies referred to in your cover letter. All have been corrected. OCD was so notified within the required time frame noted in the Notice of Violation and subsequent Clarification concerning the deficiencies. The others I have responded to in the preceding paragraphs.

As soon as I receive clarification on the issues I have raised, I will proceed with the permit application preparation and submittal.

One other minor point, under Paragraph 16 of Attachment 1, why are we required to submit a copy of our application to the Hobbs, NM District Office rather than Aztec ?

If you have any questions or would like to discuss the matter please call me at anytime.

Sincerely,

Phillip C.Nobis
President

xc: D. Foust, OCD Aztec
Tierra Legal Advisor
Landfarm File

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

September 15, 1997

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: NOTICE OF VIOLATION issued September 9, 1997 and CLARIFICATION OF NOTICE OF VIOLATION issued September 12, 1997 to Tierra Environmental Company, Inc. Waste Management Facility Permit No. NM-01-0010

Dear Mr. Anderson:

Tierra received the above reference notices and has taken the appropriate action as required therein in order to come into compliance with our permit requirements.

However, for the record as President and Owner of Tierra Environmental Company, Inc., I must take exception to some of the information and allegations contained within both the Notice of Violation and the Clarification of Notice of Violation.

Notice of Violation, September 9, 1997:

1. The stabilization pad was full of liquid and wet material which had a highly pervasive and offensive odor. Evidence indicates that this material has been in place for several weeks.

   Tierra's permit requires that: Unstabilized material is not permitted to be in the pad for more than 24 hrs

Enclosed is a copy of Tierra's permit. Nowhere does it specify a time frame wherein unstabilized material may be left in the impoundment. Therefore the allegation that Tierra has committed a permit violation because of material being left for over 24 hrs in the impoundment is erroneous. Further more the impoundment was not full. Its capacity is 250 barrels. It contained at the time of the inspection approximately 40 bbls. The material has not been in the impoundment for several weeks as is alleged. It may have been in there for no more than a week. Also the considerable amount of rainfall the landfarm has received during the week preceding the notice of violation was the balance of the liquid that was in the pond. The material had been stabilized but not spread. Relative to the pervasive and offensive odor, it's oilfield waste. It all has to some degree or another an offensive or pervasive odor. There are no provisions in the permit with

regard to odor other than hydrogen sulfide. Tierra makes every effort to control odor upon the facility. If the implication is that the material in the impoundment was the cause of odor complaints from the neighbors that is also erroneous. The material in the impoundment was treated with potassium permanganate. The only time an odor could be detected was in the immediate proximity of the impoundment and certainly not several hundred yards away. The Amoco Facility located adjacent to the Tierra landfarm was hauling and mixing the week preceding the notice of violation. Their process involves using activated sewer sludge for composting which also has a highly offensive and pervasive odor.

2. The stabilization pad (impoundment) appears to be leaking or weeping around the edges due to material being left in the pad.

   Tierra's permit requires that: The OCD Santa Fe and Aztec Offices will be notified within twenty-four hours of a containment leak.

The term "appears" is insufficient to determine whether or not a leak has occurred. D.Foust OCD Aztec was notified that the end of the impoundment (pad) had been knocked out during a mixing accident in late July of 1997 and inspected the repairs that had been completed to the tune of $ 6,500.00. At the time of the incident some material was spilled onto the ground and was immediately cleaned up. The other staining referred to is potassium permanganate which we use to treat some of the minor spillage both on the ground and on the sides of the impoundment. There are no leaks or weeping in the impoundment.

3. The pad has been run over or slopped over during stabilization of material. Little or no remedial work has been done on this slop material.

   Tierra's permit requires that: All contaminated soil received at the facility will be spread and disked within 72 hours.

The material that was observed is stained broken concrete left over from the accident in July. I don't spread concrete on the landfarm. When we have the time and the where with all the concrete will be taken to the county landfill. Stained broken concrete is not in violation of the Tierra permit. The other staining is spent potassium permanganate which turns dark brown.

4. Contaminated soil to the south of the Tierra Office has not been spread at all or has not been spread sufficiently to meet the conditions of the Tierra permit.

   Tierra's permit requires that: All contaminated soil received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in 6 inch lifts or less.

South of the Tierra Office is approximately 56 acres of landfarm, most of which contains soil received. 100 % of the material has been spread and most tilled and is in various stages of remediation. I would refer you to the enclosed letter written by me to you on February 5, 1996 concerning the 72 hour rule. To date I have received no response.

In the paragraph following item 4, allegations are made that the material pile south of the Tierra Office has been in place for nine months. Not true. The material has been there for a few months because it was too sticky to spread. It was in the process of being delivered when you conducted an inspection of the landfarm this summer. Several attempts to spread the material have been made during that time. Unusually heavy precipitation has prevented the successful spreading. Following the meeting referred to on August 26, 1997 additional efforts were made to spread the material. The material was still sticky but dry enough to work on. It was being spread prior to the notice of violation.

The emphasis on six inch lifts or less and tying it to the 72 hour rule is stretching the issues. Anyone with any minute knowledge of farming or dirt work knows that soil stacked in piles, especially sticky material such as clay has to be worked, spread out, disked and harrowed several times before is becomes a consistent depth. It cannot be accomplished in one single effort. Furthermore having enjoyed what I consider to be an excellent relationship with OCD during the past five plus years, I don't believe that the rules or the spirit of the rules are intended as anything but a guideline with which to insure that landfarms are operated properly and to further insure that the public health and environment are adequately protected.

Now with reference to the clarification of notice of violation dated September 12, 1997, additional items were noted again with emphasis on the six inch lift and 72 hour rule. As previously stated soil has to be worked over period of time in order to accomplish a consistent depth. That is part of the tilling and remediation process.

Also for the record, I object to an inspection of our facility being conducted while no Tierra personnel were in attendance. Based on the information I was furnished in both the notice of violation and the clarification of notice of violation, no emergency existed requiring immediate access to the landfarm. If the inspection was conducted based on the complaints by neighbors regarding odor, still no emergency existed. D. Foust was at the landfarm on August 26, 1997 inquiring as to whether or not we had observed any unusual odor and found no evidence that we were the cause of any odor complaint. Why then was it necessary to enter our facility regarding the same issue on Monday September 8, 1997 when no one was present on the landfarm? Tierra personnel all carry pagers, mobile telephones and can be reached at our twenty four hour number which is our normal business number. OCD has never hesitated to contact us in that manner is the past. Some one from Tierra should have been present. With regard to Frank Chavez's follow up inspection of September 11, 1997 which was conducted while Tierra personnel were present, I have already explained the problem with cells being actively worked. His other comments re: "House Keeping" have been duly noted and corrected.

I have operated this landfarm for five years and it has been inspected often by the local Aztec OCD office as well as you and other personnel from Santa Fe several times. It is being operated more efficiently now than it had been in the past. Although I admit there is more material here now and some of it especially the stuff from Basin and Sunco is pretty tough to deal with. But we work at it pretty hard in a "Reasonable" manner. You and I as well a Denny have discussed the 72 hour rule as it relates to difficult material and my understanding has always been that as long as we were making a reasonable effort there was no problem. In fact the last discussions we had

about the subject were the reason I has sent you the letter referred to earlier. Color me wrong by operating with that understanding and the concept of Silent Consent" The biggest complaint has always been plastic, which is not a violation of our permit unless it becomes blowing debris, which it has not. We keep pretty close track of anything that can blow away. Of course these notices had nothing to do with plastic.

I have some major concerns. The first is that Tierra as you know is being considered as "Sole Source" for the disposal and remediation of soil from the B-Line Refinery Project being planned by the NMED and EPA. This notice of violation could affect the out come of whether or not Tierra gets the soil. Therefore the financial stability of Tierra could become an issue should these notices have an adverse impact. The second concern is that on D. Fousts visit on August 26, 1997 referred to in the notice he had expressed concern by OCD regarding an alleged feature being prepared by the T.V. Program 60 Minutes regarding oilfield waste disposal and how it is regulated. He mentioned that Chris Shuey (phon) was involved some how. We assured him at that time we would make every reasonable effort to get some material spread and do some house keeping and further that we would welcome an interview. I do not want to believe that Tierra has been singled out to prove OCD is doing a good job regulating its facilities. We have been featured in the Albuquerque Journal, KOBF T.V. and the Farmington Daily Times in a positive light. He was also aware that considerable rain fall had occurred the several days preceding his visit and that our loader was down for repairs and we were awaiting a part that was suppose to arrive that day or the next. I left for New York State the morning of August 29, 1997. The part had arrived and the loader repaired. Material was being spread. That same weekend Friday, Saturday, Sunday and Monday additional precipitation was received on the landfarm. After allowing the landfarm to dry out, spreading of the material continued. This past week it rained almost every day to some degree, making landfarm operations tough. But the staff has done the best job possible under the conditions to keep the place in shape. I returned from New York this past weekend and today was greeted with the two notices. I have now conducted and inspection of the facility. Most of the items contained in the notice of violation and the subsequent clarification have been fixed within reason, even though most were not violations. The landfarm looks no different today than it did when you inspected it this summer other than there is more material on it. Another concern is that the notice of violation was issued based on a letter provided to you by Frank Chavez. Shortly thereafter Frank Chavez showed up at the landfarm and according to Blaine Williams and Tim Nobis the personnel I had placed in charge of operations during my absence, began to contradict the items stated in the notice of violation stating they were not a priority and demanding that other house keeping thing that he had identified were the priority. Tim called you and we received a written clarification. It seems to me that Franks actions are suspicious. I have been aware for some time, that there is a "Conflict" between the District Office in Aztec and Headquarters in Santa Fe. Tierra will not be caught in the middle of any political problems. It also seems very suspicious that at the very time it was, because of heavy continuous rainfall, the most difficult to comply with and to correct the problems alleged in the notice of violation and the subsequent clarification we were issued the notice and clarification. When for the past five years everything has been fine.

Not to belabor this book much longer, but during my career as a law enforcement officer and administrator, I never acted on anonymous complaints from citizens. Tips like Crime Stoppers

concerning crimes that have been proven to have been committed yes, but not anonymous complaints that for example "Roger Anderson is a Criminal" and I want him arrested, but you don't know who I am. People in business who have envious competitors or disgruntled employees who have been discharged for cause, citizens who may be involved in legal disputes such as divorce, police officers due to the very nature of their work make enemies. A complaint in writing signed by the person complaining is the only acceptable evidence that a violation of rules, regulations or laws may have been committed. Then and only then was the complaint investigated. And following the investigation if the complaint was substantiate with hard evidence, not supposition, appropriate action was taken, but only then. It has something to do with "Due Process"and "Reasonableness". Tierra has been tried and convicted based on anonymous complaints from citizens concerning an odor of which we there is no evidence Tierra was responsible, sticky soil not spread because of rainfall, violating a 24 hour rule that is not in the permit, six inch lifts not being consistent in a cell that is actively being worked etc., etc., etc.

Please make my comments part of the record. We will work through this one way or the other. I have confidence in the OCD despite this thing I don't understand and personally feel was very undeserving.

Therefore I respectfully request that the "Notice of Violation and subsequent "Clarification" be rescinded or at the very least amended to address any matter that was a true violation, which is based in "Fact", not supposition, innuendo, bogas information, guess work or personal opinion.

Please call me if you have any questions or need additional information.

Sincerely,

Phillip C. Nobis
President

x.c: D. Foust, Aztec OCD
Martyne J. Kieling OCD Santa Fe
Tierra Legal Advisor
Landfarm File

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

September 15, 1997

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: NOTICE OF VIOLATION issued September 9, 1997 and CLARIFICATION OF NOTICE OF VIOLATION issued September 12, 1997 to Tierra Environmental Company, Inc. Waste Management Facility Permit No. NM-01-0010

Dear Mr. Anderson:

Tierra received the above reference notices and has taken the appropriate action as required therein in order to come into compliance with our permit requirements.

However, for the record as President and Owner of Tierra Environmental Company, Inc., I must take exception to some of the information and allegations contained within both the Notice of Violation and the Clarification of Notice of Violation.

Notice of Violation, September 9, 1997:

1. The stabilization pad was full of liquid and wet material which had a highly pervasive and offensive odor. Evidence indicates that this material has been in place for several weeks.

   Tierra's permit requires that: Unstabilized material is not permitted to be in the pad for more than 24 hrs

Enclosed is a copy of Tierra's permit. Nowhere does it specify a time frame wherein unstabilized material may be left in the impoundment. Therefore the allegation that Tierra has committed a permit violation because of material being left for over 24 hrs in the impoundment is erroneous. Further more the impoundment was not full. Its capacity is 250 barrels. It contained at the time of the inspection approximately 40 bbls. The material has not been in the impoundment for several weeks as is alleged. It may have been in there for no more than a week. Also the considerable amount of rainfall the landfarm has received during the week preceding the notice of violation was the balance of the liquid that was in the pond. The material had been stabilized but not spread. Relative to the pervasive and offensive odor, it's oilfield waste. It all has to some degree or another an offensive or pervasive odor. There are no provisions in the permit with

regard to odor other than hydrogen sulfide. Tierra makes every effort to control odor upon the facility. If the implication is that the material in the impoundment was the cause of odor complaints from the neighbors that is also erroneous. The material in the impoundment was treated with potassium permanganate. The only time an odor could be detected was in the immediate proximity of the impoundment and certainly not several hundred yards away. The Amoco Facility located adjacent to the Tierra landfarm was hauling and mixing the week preceding the notice of violation. Their process involves using activated sewer sludge for composting which also has a highly offensive and pervasive odor.

2. The stabilization pad (impoundment) appears to be leaking or weeping around the edges due to material being left in the pad.

   Tierra's permit requires that: The OCD Santa Fe and Aztec Offices will be notified within twenty-four hours of a containment leak.

The term "appears" is insufficient to determine whether or not a leak has occurred. D.Foust OCD Aztec was notified that the end of the impoundment (pad) had been knocked out during a mixing accident in late July of 1997 and inspected the repairs that had been completed to the tune of $ 6,500.00. At the time of the incident some material was spilled onto the ground and was immediately cleaned up. The other staining referred to is potassium permanganate which we use to treat some of the minor spillage both on the ground and on the sides of the impoundment. There are no leaks or weeping in the impoundment.

3. The pad has been run over or slopped over during stabilization of material. Little or no remedial work has been done on this slop material.

   Tierra's permit requires that: All contaminated soil received at the facility will be spread and disked within 72 hours.

The material that was observed is stained broken concrete left over from the accident in July. I don't spread concrete on the landfarm. When we have the time and the where with all the concrete will be taken to the county landfill. Stained broken concrete is not in violation of the Tierra permit. The other staining is spent potassium permanganate which turns dark brown.

4. Contaminated soil to the south of the Tierra Office has not been spread at all or has not been spread sufficiently to meet the conditions of the Tierra permit.

   Tierra's permit requires that: All contaminated soil received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in 6 inch lifts or less.

South of the Tierra Office is approximately 56 acres of landfarm, most of which contains soil received. 100 % of the material has been spread and most tilled and is in various stages of remediation. I would refer you to the enclosed letter written by me to you on February 5, 1996 concerning the 72 hour rule. To date I have received no response.

In the paragraph following item 4, allegations are made that the material pile south of the Tierra Office has been in place for nine months. Not true. The material has been there for a few months because it was too sticky to spread. It was in the process of being delivered when you conducted an inspection of the landfarm this summer. Several attempts to spread the material have been made during that time. Unusually heavy precipitation has prevented the successful spreading. Following the meeting referred to on August 26, 1997 additional efforts were made to spread the material. The material was still sticky but dry enough to work on. It was being spread prior to the notice of violation.

The emphasis on six inch lifts or less and tying it to the 72 hour rule is stretching the issues. Anyone with any minute knowledge of farming or dirt work knows that soil stacked in piles, especially sticky material such as clay has to be worked, spread out, disked and harrowed several times before is becomes a consistent depth. It cannot be accomplished in one single effort. Furthermore having enjoyed what I consider to be an excellent relationship with OCD during the past five plus years, I don't believe that the rules or the spirit of the rules are intended as anything but a guideline with which to insure that landfarms are operated properly and to further insure that the public health and environment are adequately protected.

Now with reference to the clarification of notice of violation dated September 12, 1997, additional items were noted again with emphasis on the six inch lift and 72 hour rule. As previously stated soil has to be worked over period of time in order to accomplish a consistent depth. That is part of the tilling and remediation process.

Also for the record, I object to an inspection of our facility being conducted while no Tierra personnel were in attendance. Based on the information I was furnished in both the notice of violation and the clarification of notice of violation, no emergency existed requiring immediate access to the landfarm. If the inspection was conducted based on the complaints by neighbors regarding odor, still no emergency existed. D. Foust was at the landfarm on August 26, 1997 inquiring as to whether or not we had observed any unusual odor and found no evidence that we were the cause of any odor complaint. Why then was it necessary to enter our facility regarding the same issue on Monday September 8, 1997 when no one was present on the landfarm? Tierra personnel all carry pagers, mobile telephones and can be reached at our twenty four hour number which is our normal business number. OCD has never hesitated to contact us in that manner is the past. Some one from Tierra should have been present. With regard to Frank Chavez's follow up inspection of September 11, 1997 which was conducted while Tierra personnel were present, I have already explained the problem with cells being actively worked. His other comments re: "House Keeping" have been duly noted and corrected.

I have operated this landfarm for five years and it has been inspected often by the local Aztec OCD office as well as you and other personnel from Santa Fe several times. It is being operated more efficiently now than it had been in the past. Although I admit there is more material here now and some of it especially the stuff from Basin and Sunco is pretty tough to deal with. But we work at it pretty hard in a "Reasonable" manner. You and I as well a Denny have discussed the 72 hour rule as it relates to difficult material and my understanding has always been that as long as we were making a reasonable effort there was no problem. In fact the last discussions we had

about the subject were the reason I has sent you the letter referred to earlier. Color me wrong by operating with that understanding and the concept of Silent Consent" The biggest complaint has always been plastic, which is not a violation of our permit unless it becomes blowing debris, which it has not. We keep pretty close track of anything that can blow away. Of course these notices had nothing to do with plastic.

I have some major concerns. The first is that Tierra as you know is being considered as "Sole Source" for the disposal and remediation of soil from the B-Line Refinery Project being planned by the NMED and EPA. This notice of violation could affect the out come of whether or not Tierra gets the soil. Therefore the financial stability of Tierra could become an issue should these notices have an adverse impact. The second concern is that on D. Fousts visit on August 26, 1997 referred to in the notice he had expressed concern by OCD regarding an alleged feature being prepared by the T.V. Program 60 Minutes regarding oilfield waste disposal and how it is regulated. He mentioned that Chris Shuey (phon) was involved some how. We assured him at that time we would make every reasonable effort to get some material spread and do some house keeping and further that we would welcome an interview. I do not want to believe that Tierra has been singled out to prove OCD is doing a good job regulating its facilities. We have been featured in the Albuquerque Journal, KOBF T.V. and the Farmington Daily Times in a positive light. He was also aware that considerable rain fall had occurred the several days preceding his visit and that our loader was down for repairs and we were awaiting a part that was suppose to arrive that day or the next. I left for New York State the morning of August 29, 1997. The part had arrived and the loader repaired. Material was being spread. That same weekend Friday, Saturday, Sunday and Monday additional precipitation was received on the landfarm. After allowing the landfarm to dry out, spreading of the material continued. This past week it rained almost every day to some degree, making landfarm operations tough. But the staff has done the best job possible under the conditions to keep the place in shape. I returned from New York this past weekend and today was greeted with the two notices. I have now conducted and inspection of the facility. Most of the items contained in the notice of violation and the subsequent clarification have been fixed within reason, even though most were not violations. The landfarm looks no different today than it did when you inspected it this summer other than there is more material on it. Another concern is that the notice of violation was issued based on a letter provided to you by Frank Chavez. Shortly thereafter Frank Chavez showed up at the landfarm and according to Blaine Williams and Tim Nobis the personnel I had placed in charge of operations during my absence, began to contradict the items stated in the notice of violation stating they were not a priority and demanding that other house keeping thing that he had identified were the priority. Tim called you and we received a written clarification. It seems to me that Franks actions are suspicious. I have been aware for some time, that there is a "Conflict" between the District Office in Aztec and Headquarters in Santa Fe. Tierra will not be caught in the middle of any political problems. It also seems very suspicious that at the very time it was, because of heavy continuous rainfall, the most difficult to comply with and to correct the problems alleged in the notice of violation and the subsequent clarification we were issued the notice and clarification. When for the past five years everything has been fine.

Not to belabor this book much longer, but during my career as a law enforcement officer and administrator, I never acted on anonymous complaints from citizens. Tips like Crime Stoppers

concerning crimes that have been proven to have been committed yes, but not anonymous complaints that for example "Roger Anderson is a Criminal" and I want him arrested, but you don't know who I am. People in business who have envious competitors or disgruntled employees who have been discharged for cause, citizens who may be involved in legal disputes such as divorce, police officers due to the very nature of their work make enemies. A complaint in writing signed by the person complaining is the only acceptable evidence that a violation of rules, regulations or laws may have been committed. Then and only then was the complaint investigated. And following the investigation if the complaint was substantiate with hard evidence, not supposition, appropriate action was taken, but only then. It has something to do with "Due Process"and "Reasonableness". Tierra has been tried and convicted based on anonymous complaints from citizens concerning an odor of which we there is no evidence Tierra was responsible, sticky soil not spread because of rainfall, violating a 24 hour rule that is not in the permit, six inch lifts not being consistent in a cell that is actively being worked etc., etc., etc.

Please make my comments part of the record. We will work through this one way or the other. I have confidence in the OCD despite this thing I don't understand and personally feel was very undeserving.

Therefore I respectfully request that the "Notice of Violation and subsequent "Clarification" be rescinded or at the very least amended to address any matter that was a true violation, which is based in "Fact", not supposition, innuendo, bogas information, guess work or personal opinion.

Please call me if you have any questions or need additional information.

Sincerely,

Phillip C. Nobis
President

x.c: D. Foust, Aztec OCD
Martyne J. Kieling OCD Santa Fe
Tierra Legal Advisor
Landfarm File

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

September 12, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-338

Mr. Phillip C. Nobis
Tierra Environmental Company, Inc.
P.O. Drawer 15250
Farmington, NM 87401

RE: Clarification of Notice Of Violation
Tierra Environmental Company, Inc.
NW/4 SE/4 (Unit J), Section 2, Township 29 North, Range 12 West,
NMPM, San Juan County, New Mexico
Waste Management Facility Permit No. NM-01-0010

Dear Mr. Nobis:

On September 11, 1997, the New Mexico Oil Conservation Division (OCD), Aztec District Office inspected Tierra Environmental Company, Inc., (Tierra), waste management facility located in NW/4 SE/4 (unit J), Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The OCD inspection was a follow-up inspection to the OCD Notice Of Violation sent to Tierra on September 9, 1997. During the Tierra facility inspection several things were brought to the attention of Blaine Williams. This letter will clarify what is required of Tierra in order to come into permit compliance.

Tierra's permit requires that all contaminated soils received at the facility will be spread and disked within 72 hours of receipt and soils will be spread on the surface in 6 inch lifts or less. Inspection of Tierra on September 11, 1997 by Frank Chavez (OCD Aztec Office) reported thicknesses up to 1 foot being spread. Tierra may not spread layers of contaminated soil thicker than 6 inches. **Tierra will complete the spreading of the contaminated material removed from the stabilization pad to a thickness of 6 inches or less no later than 5:00 PM September 14, 1997.**

Several house keeping problems were noted during the inspection: 1) A small leak at a connection on the horizontal green tank used as part of a permanganate mixing operation. **Tierra will repair the leak no later than 5:00 PM September 14, 1997.** 2) Two open top tubs in the bermed area east of the horizontal green tank, are tilted enabling the material within to spill and overflow onto the ground during rainstorms. **Tierra will straighten the tubs to prevent further spillage no**

later than 5:00 PM September 14, 1997.

Point 4 of the Notice Of Violation Dated September 9, 1997, Tierra will spread the contaminated material south of the office to a thickness of 6 inches or less no later than 5:00 PM September 14, 1997.

Upon completion of these tasks Tierra Environmental Company, Inc., shall notify the OCD Santa Fe and Aztec Offices in writing that the work has been completed.

If you require any further information concerning this matter please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

Oil Conservation Division
2040 South Pacheco Street
Sante Fe, New Mexico 87505

ATTN: Martyne J. Kieling

RE: RESPONSE TO NOTICE OF VIOLATION OF STABILIZATION PAD (IMPOUNDMENT) AT TIERRA ENVIRONMENTAL LANDFARM

Dear Ms. Kieling,

The requirements outlined in the Notice of Violation that was received by our office on Tuesday, September 9, 1997 concerning the stabilization pad (impoundment), were met by 5:00 p.m. on that day. The sludges within the impoundment were solidified, removed and spread to be landfarmed as were the overflowed materials around the exterior.

We will contact you in writing as you requested when the additional materials outlined in the notice of violation are spread in accordance with our permit # R-9772.

Please call if you have any questions or concerns on this matter, 334-8894.

Sincerely,

Tim Nobis
Environmental Specialist

TRANSMITTAL COVER SHEET

Oil Conservation Division
(505) 827-7131 (Office)
(505) 827-8177 (Fax)

Please Deliver This Fax To:

TO: Phillip C. Nobis Tierra Environmental Co. Inc

FROM: Martyne Kieling

SUBJECT: NOV

DATE: 9/9/97

PAGES: 3

If You Have Any Problems Receiving This Fax
Please Call the Number Above

Time 3:00 pm

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 2:45	Date

Originating Party	Other Parties
Martyne Kieling	Tim Nobis

Subject: NOV To Be Faxed

Discussion: Liquids in the Stabilization Pad are already Removed & Landfarm As Per Tim Nobis.

Conclusions or Agreements

Distribution

Signed: Martyne

Tierra Env LandFarm

6/10/97

Tierra Env. Land Farm

6/10/97

Tierra Environmental Land Farm

6/10/97

Tierra Environmental Land Farm

6/10/97

Tierra Env. Land Farm

6/10/97

Tierra Env. LandFarm

6/10/97

Tierra Env. Land Farm

6/10/97

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

April 30, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-284

Mr. Phillip C. Nobis, President
Tierra Environmental Company Inc.
P.O. Drawer 15250
Farmington, New Mexico 87401-5250

RE: Approval for Remediated Soil Recycling

Dear Mr Nobis:

The New Mexico Oil Conservation Division (OCD) has received Tierra Environmental's request dated April 17, 1997 for authorization to recycle remediated soils from Cell-1 and Cell-4. Based on the information provided **Cell-1** and **Cell-4** are hereby **approved** for the following recycling uses:

1. Soil backfill for oil and gas projects.
2. Sludge mixing material.
3. Road construction material.

Due to residual levels of BTEX, application of these soils in the approved projects listed above must not result in run-off into any Waters of the U.S. If Tierra Environmental wants to move the soils from Cell-1 and Cell-4 for any other use than those approved here separate OCD authorization must be granted.

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

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling

Martyne J. Kieling
Environmental Geologist

xc: OCD Aztec Office

Martyne Kieling

From: Denny Foust
Sent: Tuesday, September 09, 1997 8:40 AM
To: Roger Anderson
Cc: Frank Chavez; Martyne Kieling
Subject: Permit Violations At Tirerra's Land Farm

On Monday September 8, 1997 Mr. Frank Chavez and I were responding to complaints of odors from residences east of the land farm. During our investigation of potential sources for odors the following problems were identified at Tierra's Crouch Mesa Land Farm.

1. The stabilization pad was full of wet material which has a highly pervasive odor. Unstabilized material is not permitted to be in the pad more than 24 hours.
2. The stabilization pad appears to be leaking or weeping around the edges due to wet material being left in the pad.
3. The pad has been run over or slopped over during stabilization of material, little or no remedial work has been done on this material.
4. Contaminated soils to the south of the office have not been spread at all or have not been spread sufficiently to meet the conditions of your permit. These soils are dry enough to be worked easily. I specifically discussed OCD's position on spreading soils with you and Tim Nobis on August 26, 1997. I subsequently reminded both Tim Nobis and Blaine Williams of the situation by telephone after our meeting.

The particular soils which were not spread I believe to have been hauled from Basin Disposal or Sunco late last fall they may have been in place 9 months or more definitely in excess of 90 days. I notified both Envirotech and Tierra that all soils must be spread and worked on schedule during this dry period as we have had moisture problems throughout much of the summer. I met with Tierra personnel in their office 8/26/97 and outlined this position and was assured the situation would be taken care of--subsequently I mentioned the seriousness of this problem to both tim Nobis and Blaine Williams who are in charge while Phil Nobis is on vacation. The material in the stabilization pad is material from the Conoco San Juan Gas Plant which was run into the pad onto some dirt but has not been worked. Blaine Williams asserts they will be orking on the problem today after equipment is up and running--I believe 24 hours is sufficient to come into compilance.

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

April 17, 1997

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: REQUEST TO RECYCLE REMEDIATED SOIL

Dear Mr. Anderson:

Enclosed are test results for approximately 4,798 cubic yards of material located in Cell #1 that was received from El Paso Natural Gas Company File # 94022 during May of 1994 resulting from numerous pit closures. Also enclosed is a list of locations where the material was excavated, complete with total yardage from each location received by Tierra. The sample taken was a composite from random locations through out Cell # 1.

Cell # 1 Test Results: Sample Code T 1 U

TPH Method 8015 46.2 mg/kg

BTEX Method 8020 512 ug/kg

Cell 4 Phillip Nobis Phone Conversation 4/30/97

Also enclosed are test results for approximately 3660 cubic yards of material located in Cell 5 that were received from El Paso Natural Gas Company during April of 1994 File # 94022. That material was also the result of numerous pit closures a list of which is attached to this letter. As with Cell # 1, random composite samples were taken from through out Cell # 4.

Cell # 4 Test Results: Sample Code T 5 U

TPH Method 8015 7.0 mg/kg

BTEX Method 8020 81.0 ug/kg

Based on the test results, I am asking permission to recycle the soil for backfill for oil and gas projects, sludge mixing material, road construction material or other beneficial use as would be approved by OCD.

If you have any questions or require additional information please give me a call.

Sincerely,

Phillip C. Nobis
President

xc: D. Foust OCD Aztec
El Paso
File # 94022

5191

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
TIERRA ENVIRONMENTAL		
Sampler: (Signature)	Chain of Custody Tape No. 04074-03	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX	TPH 8015	TOTAL RCRA METALS (WET TAP)	GEN. CHEM.			Remarks
TSE	4-11	2:11P	B128	SOIL	1	X	X	X	X			
TSW	4-11	2:00P	B129	"	1	X	X	X	X			
TIU	4-11	2:45P	B130	N	1	X	X					
TSU	4-11	2:40P	B131	N	1	X	X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	4-11	1522		4/11/97	1522
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074
Sample ID:	T 1 U	Date Reported:	04-15-97
Laboratory Number:	B130	Date Sampled:	04-11-97
Chain of Custody No:	5191	Date Received:	04-11-97
Sample Matrix:	Soil	Date Extracted:	04-15-97
Preservative:	Cool	Date Analyzed:	04-15-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1.6**	**0.2**
Diesel Range (C10 - C28)	**44.6**	**0.1**
Total Petroleum Hydrocarbons	**46.2**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074
Sample ID:	T 1 U	Date Reported:	04-15-97
Laboratory Number:	B130	Date Sampled:	04-11-97
Chain of Custody:	5191	Date Received:	04-11-97
Sample Matrix:	Soil	Date Analyzed:	04-15-97
Preservative:	Cool	Date Extracted:	04-15-97
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**74.8**	**8.4**
Ethylbenzene	**120**	**7.6**
p,m-Xylene	**220**	**10.8**
o-Xylene	**97.2**	**5.2**
Total BTEX	**512**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**100 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505-632-0615 Fax 505-632-

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074
Sample ID:	T 5 U	Date Reported:	04-15-97
Laboratory Number:	B131	Date Sampled:	04-11-97
Chain of Custody:	5191	Date Received:	04-11-97
Sample Matrix:	Soil	Date Analyzed:	04-15-97
Preservative:	Cool	Date Extracted:	04-15-97
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**38.2**	**8.4**
Ethylbenzene	**ND**	**7.6**
p,m-Xylene	**27.4**	**10.8**
o-Xylene	**15.4**	**5.2**
Total BTEX	**81.0**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074
Sample ID:	T 5 U	Date Reported:	04-15-97
Laboratory Number:	B131	Date Sampled:	04-11-97
Chain of Custody No:	5191	Date Received:	04-11-97
Sample Matrix:	Soil	Date Extracted:	04-15-97
Preservative:	Cool	Date Analyzed:	04-15-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1.8**	**0.2**
Diesel Range (C10 - C28)	**5.2**	**0.1**
Total Petroleum Hydrocarbons	**7.0**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

CLIENT :EL PASO N.G. PAGE 1

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	04/29/94	4073	FEDERAL G.C. 3-1	FOUTZ (ATENCIO)	24	10.00	0.00	1
	04/29/94	4074	FEDERAL G.C. 3-1	FOUTZ	731	10.00	0.00	1
	04/29/94	4075	FEDERAL G.C. 3-1	FOUTZ	432	15.00	0.00	1
	05/02/94	4076	GALLEGOS CYN. 152	FOUTZ	731	20.00	30.00	1
	05/02/94	4077	GALLEGOS CYN. 152	FOUTZ	933	10.00	10.00	1
	05/02/94	4078	HOUCK D-1	FOUTZ	431	30.00	30.00	1
	05/02/94	4079	FEDERAL G.C. 3-1	FOUTZ	432	0.00	15.00	
	05/02/94	4080	HOUCK D-1	FOUTZ	531	15.00	30.00	1
	05/02/94	4081	VALDEZ 2-2	FOUTZ	931	20.00	20.00	1
	05/02/94	4082	VALDEZ 2-2	FOUTZ	933	20.00	30.00	1
	05/02/94	4083	HOUCK D-1	FOUTZ	432	30.00	15.00	1
	05/02/94	4084	VALDEZ 2-2	FOUTZ	731	20.00	20.00	1
	05/02/94	4085	GIOMI B #1	FOUTZ	933	20.00	30.00	1
	05/02/94	4086	GIOMI B #1	FOUTZ	731	20.00	30.00	1
	05/02/94	4087	HEATH G.C. L #1	FOUTZ	531	30.00	45.00	1
	05/02/94	4088	GIOMI B #1	FOUTZ	931	20.00	30.00	1
	05/02/94	4089	HEATH G.C. L #1	FOUTZ	432	15.00	15.00	1
	05/02/94	4090	GIOMI B #1	FOUTZ	431	30.00	30.00	1
	05/02/94	4091	GIOMI B #1	FOUTZ	432	15.00	30.00	1
	05/03/94	4092	LAT H-37 DRIP Y2	FOUTZ (ATENCIO)	24	10.00	20.00	1
	05/03/94	4093	STATE G.C. N1	FOUTZ	531	30.00	30.00	1
	05/03/94	4094	STATE G.C. N1	FOUTZ	931	20.00	20.00	1
	05/03/94	4095	STATE G.C. N1	FOUTZ	432	30.00	15.00	1
	05/03/94	4096	JOHNSON 1E	FOUTZ	132	10.00	10.00	1
	05/03/94	4097	JOHNSON 1E	FOUTZ	731	10.00	10.00	1
	05/03/94	4098	STATE COM BA 1	FOUTZ	432	15.00	15.00	1
	05/03/94	4099	LAT H-37 DRIP Y2	FOUTZ	132	20.00	20.00	1
	05/03/94	4100	LAT H-37 DRIP Y2	FOUTZ	431	10.00	15.00	1
	05/03/94	4101	STATE COM BA 1	FOUTZ	531	15.00	15.00	1
	05/03/94	4102	STATE COM BA 1	FOUTZ	931	10.00	10.00	1
	05/03/94	4104	LAT H-37 DRIP Y2	FOUTZ	731	10.00	10.00	1
	05/03/94	4105	STATE COM AK 35E	FOUTZ	432	15.00	15.00	1
	05/03/94	4106	TOMMY BOLACK #1DKGL	FOUTZ	431	15.00	15.00	1
	05/03/94	4107	STATE COM AK 35E	FOUTZ	531	15.00	15.00	1
	05/03/94	4108	TOMMY BOLACK #1DKGL	FOUTZ (ATENCIO)	24	20.00	20.00	1
	05/03/94	4109	TOMMY BOLACK #1DKGL	FOUTZ	731	40.00	40.00	1
	05/03/94	4110	STATE COM AK 35E	FOUTZ	931	10.00	10.00	1
	05/03/94	4111	TOMMY BOLACK #1DKGL	FOUTZ	132	30.00	20.00	1
	05/03/94	4112	TOMMY BOLACK #1DKGL	FOUTZ	531	30.00	30.00	1
	05/03/94	4113	McGEE PARK	FOUTZ	931	5.00	0.00	1
	05/04/94	4114	JOHN SCHUMACHER #1	FOUTZ	432	15.00	30.00	1
	05/04/94	4115	JOHN SCHUMACHER #1	FOUTZ	431	15.00	15.00	1
	05/04/94	4116	PUPCO FED #1	FOUTZ	132	10.00	20.00	1
	05/04/94	4117	JOHNSON #1	FOUTZ	933	0.00	10.00	
	05/04/94	4118	FEDERAL G.C. E-1 DK	FOUTZ	931	10.00	20.00	1
	05/04/94	4119	PUPCO FED #1	FOUTZ	731	10.00	20.00	1
	05/04/94	4120	PUPCO FED #1	FOUTZ	933	10.00	20.00	1
	05/04/94	4121	PAN AM FED G.U. D1	FOUTZ	432	15.00	15.00	1
	05/04/94	4122	PAN AM FED G.U. D1	FOUTZ	931	20.00	20.00	1
	05/04/94	4123	PAN AM FED G.U. D1	FOUTZ (ATENCIO)	23	10.00	20.00	1
	05/04/94	4124	PAN AM C 2E	FOUTZ (ATENCIO)	24	10.00	20.00	1
	05/04/94	4125	GRACE PIERCE #1	FOUTZ	431	0.00	15.00	
	05/04/94	4126	GRACE PIERCE #1	FOUTZ	132	20.00	10.00	1
	05/04/94	4127	GRACE PIERCE #1	FOUTZ	731	20.00	10.00	1
	05/04/94	4128	GRACE PIERCE #1	FOUTZ	933	10.00	10.00	1
	05/04/94	4129	HUBBELL #9	FOUTZ	931	10.00	20.00	1
	05/04/94	4130	HUBBELL #9	FOUTZ (ATENCIO)	23	10.00	10.00	1

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/04/94	4131	TOMMY BOLACK #1DKGL	FOUTZ	931	3.00	0.00	1
	05/04/94	4132	HUBBELL #9	FOUTZ (ATENCIO)	24	10.00	0.00	1
	05/05/94	4133	BUNCE FED 1A	FOUTZ	132	20.00	30.00	1
	05/05/94	4134	BUNCE FED 1A	FOUTZ	933	20.00	30.00	1
	05/05/94	4135	HUBBELL #11	FOUTZ	931	10.00	10.00	1
	05/05/94	4136	HUBBELL #11	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/05/94	4137	BUNCE FED 1A	FOUTZ	432	15.00	0.00	1
	05/05/94	4138	BUNCE FED 1A	FOUTZ	731	10.00	20.00	1
	05/05/94	4139	HARE G.C. E-1	FOUTZ (ATENCIO)	23	20.00	20.00	1
	05/05/94	4140	HARE G.C. E-1	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/05/94	4141	HARE G.C. E-1	FOUTZ	931	10.00	10.00	1
	05/05/94	4142	CANDELARIA G.C. C#1	FOUTZ	731	20.00	30.00	1
	05/05/94	4143	CANDELARIA G.C. C#1	FOUTZ	132	10.00	20.00	1
	05/05/94	4144	JACQUEZ G.C. A#2	FOUTZ	931	20.00	20.00	1
	05/05/94	4145	JACQUEZ G.C. A#2	FOUTZ (ATENCIO)	24	20.00	20.00	1
	05/05/94	4146	JACQUEZ G.C. A #3E	FOUTZ	431	15.00	30.00	1
	05/05/94	4147	CANDELARIA G.C. C#1	FOUTZ	933	20.00	20.00	1
	05/05/94	4148	JACQUEZ G.C. A#2	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/05/94	4149	JACQUEZ G.C. A #3E	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/05/94	4150	CANDELARIA G.C. A#1	FOUTZ	132	20.00	20.00	1
	05/05/94	4251	JACQUEZ G.C. A #3E	FOUTZ	931	10.00	0.00	1
	05/05/94	4254	CANDELARIA G.C. A#1	FOUTZ	731	20.00	20.00	1
	05/05/94	4255	JACQUEZ G.C. A #3E	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/05/94	4256	CANDELARIA G.C. A#1	FOUTZ	933	20.00	20.00	1
	05/05/94	4257	JAQUEZ A1A	FOUTZ	431	15.00	15.00	1
	05/05/94	4258	JAQUEZ A1A	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/05/94	4259	JAQUEZ A1A	FOUTZ (ATENCIO)	24	10.00	0.00	1
	05/06/94	4260	W D HEATH B#5	FOUTZ (ATENCIO)	24	20.00	30.00	1
	05/06/94	4261	MARTINEZ G.C. B-1	FOUTZ	132	20.00	30.00	1
	05/06/94	4262	MARTINEZ G.C. B-1	FOUTZ	731	20.00	30.00	1
	05/06/94	4263	W D HEATH B#5	FOUTZ	931	10.00	20.00	1
	05/06/94	4264	MARTINEZ G.C. B-1	FOUTZ	933	20.00	20.00	1
	05/06/94	4265	W D HEATH B#5	FOUTZ (ATENCIO)	23	20.00	20.00	1
	05/06/94	4266	MARTINEZ G.C. B-1	FOUTZ	432	15.00	30.00	1
	05/06/94	4267	W D HEATH B#5	FOUTZ	431	0.00	15.00	
	05/06/94	4268	JAQUEZ GAS A#4	FOUTZ	933	10.00	10.00	1
	05/06/94	4269	JAQUEZ GAS A#4	FOUTZ	132	10.00	10.00	1
	05/06/94	4270	JAQUEZ GAS A#4	FOUTZ	731	10.00	10.00	1
	05/06/94	4271	JAQUEZ G.C. A1A	FOUTZ	931	0.00	20.00	
	05/06/94	4272	JAQUEZ G.C. A1A	FOUTZ	431	15.00	15.00	1
	05/06/94	4273	JAQUEZ GAS A#4	FOUTZ	432	15.00	15.00	1
	05/06/94	4274	MANSFIELD #6	FOUTZ	933	20.00	10.00	1
	05/06/94	4275	MANSFIELD #6	FOUTZ	132	10.00	10.00	1
	05/06/94	4276	MANSFIELD #6	FOUTZ	731	15.00	10.00	1
	05/06/94	4277	JAQUEZ G.C. A1A	FOUTZ (ATENCIO)	23	0.00	10.00	
	05/06/94	4278	JAQUEZ G.C. A1A	FOUTZ (ATENCIO)	24	0.00	10.00	
	05/06/94	4279	MANSFIELD #5	FOUTZ	432	15.00	0.00	1
	05/06/94	4281	MANSFIELD #5	FOUTZ (ATENCIO)	23	20.00	10.00	1
	05/06/94	4282	MANSFIELD #5	FOUTZ	931	10.00	10.00	1
	05/06/94	4283	FLORENCE #91	FOUTZ	731	5.00	0.00	1
	05/06/94	4284	MANSFIELD #5	FOUTZ (ATENCIO)	24	10.00	0.00	1
	05/06/94	4285	FLORENCE #91	FOUTZ	132	10.00	0.00	1
	05/09/94	4286	FLORENCE #55	FOUTZ (ATENCIO)	23	20.00	20.00	1
	05/09/94	4287	FLORENCE #93	FOUTZ	933	10.00	20.00	1
	05/09/94	4288	MANSFIELD #5	FOUTZ	132	0.00	10.00	
	05/09/94	4289	FLORENCE #55	FOUTZ	3	20.00	20.00	1
	05/09/94	4290	FLORENCE #93	FOUTZ	931	10.00	10.00	1

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/09/94	4291	FLORENCE #55	FOUTZ	531	15.00	15.00	1
	05/09/94	4292	FLORENCE #93	FOUTZ	831	10.00	10.00	1
	05/09/94	4293	FLORENCE #93	FOUTZ	132	20.00	10.00	1
	05/09/94	4294	E.E. ELLIOTT C1	FOUTZ (ATENCIO)	24	20.00	30.00	1
	05/09/94	4295	STATE G.C. G8	FOUTZ	933	30.00	20.00	1
	05/09/94	4296	STATE COM G8	FOUTZ	931	20.00	30.00	1
	05/09/94	4297	STATE COM G8	FOUTZ	831	20.00	30.00	1
	05/09/94	4298	STATE G.C. G8	FOUTZ	132	20.00	30.00	1
	05/09/94	4299	ELLIOTT CS CMX1	FOUTZ (ATENCIO)	23	0.00	10.00	
	05/09/94	4300	E.E. ELLIOTT C1	FOUTZ (ATENCIO)	23	10.00	20.00	1
	05/09/94	6505	E.E. ELLIOTT C1	FOUTZ	531	15.00	30.00	1
	05/09/94	6506	E.E. ELLIOTT C1	FOUTZ	3	10.00	20.00	1
	05/09/94	6507	STATE G.C. G8	FOUTZ	531	15.00	0.00	1
	05/10/94	6508	STATE COM H-9 FT	FOUTZ	132	20.00	20.00	1
	05/10/94	6512	LAT 3-B-45	FOUTZ	3	10.00	20.00	1
	05/10/94	6513	LAT 3-B-45	FOUTZ	531	0.00	15.00	
	05/10/94	6509	STATE COM H-9 FT	FOUTZ	831	20.00	30.00	1
	05/10/94	6510	STATE COM H-9 FT	FOUTZ	931	10.00	20.00	1
	05/10/94	6511	STATE COM H-9 FT	FOUTZ	933	10.00	20.00	1
	05/10/94	6517	LAT 3-B-45	FOUTZ (ATENCIO)	23	20.00	20.00	1
	05/10/94	6518	LAT 3-B-45	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/10/94	6519	STANDLIN G.C. C1	FOUTZ	832	0.00	45.00	
	05/10/94	6523	STATE COM H#9 PC	FOUTZ	931	20.00	20.00	1
	05/10/94	6524	STATE COM H#9 PC	FOUTZ	831	10.00	10.00	1
	05/10/94	6525	STATE COM H#9 PC	FOUTZ	933	20.00	20.00	1
	05/10/94	6526	FLORENCE 107 PC	FOUTZ	531	30.00	30.00	1
	05/10/94	6527	FLORENCE 107 PC	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/10/94	6528	FLORENCE 107 PC	FOUTZ	3	10.00	10.00	1
	05/10/94	6529	STATE COM H-9 PC	FOUTZ	132	10.00	20.00	1
	05/10/94	6530	FLORENCE 107 PC	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/10/94	6531	FLORENCE 107 FT	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/10/94	6532	FLORENCE 107 FT	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/10/94	6533	FLORENCE 107 FT	FOUTZ	3	10.00	10.00	1
	05/10/94	6534	JACQUEZ #3	FOUTZ	831	20.00	10.00	1
	05/10/94	6535	JACQUEZ #3	FOUTZ (ATENCIO)	24	10.00	10.00	1
	05/10/94	6536	JACQUEZ #3	FOUTZ	531	15.00	0.00	1
	05/10/94	6537	JACQUEZ #3	FOUTZ	132	10.00	0.00	1
	05/10/94	6538	ELLIOT G.C. L#1	FOUTZ (ATENCIO)	23	10.00	0.00	1
	05/10/94	6539	JACQUEZ #3	FOUTZ	933	10.00	0.00	1
	05/10/94	6540	ELLIOT G.C. #1	FOUTZ (ATENCIO)	24	10.00	0.00	1
	05/10/94	6541	ELLIOT G.C. #1	FOUTZ	3	10.00	0.00	1
	05/11/94	6544	ELLIOTT G.C. L#1	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/11/94	6545	ELLIOTT G.C. L#1	FOUTZ (ATENCIO)	23	10.00	20.00	4
	05/11/94	6546	JACQUEZ #3	FOUTZ	933	10.00	20.00	4
	05/11/94	6547	JACQUEZ #3	FOUTZ	831	20.00	20.00	4
	05/11/94	6548	ELLIOTT G.C. L#1	FOUTZ	531	15.00	15.00	4
	05/11/94	6549	JACQUEZ #3	FOUTZ (C'DATED)	C-108	20.00	20.00	4
	05/11/94	6550	ELLIOTT G.C. L#1	FOUTZ	132	10.00	10.00	4
	05/11/94	6551	JACQUEZ #3	FOUTZ	931	10.00	10.00	4
	05/11/94	6552	ELLIOTT G.C. L#1	FOUTZ	3	10.00	10.00	4
	05/11/94	6554	JACQUEZ #3	FOUTZ	832	0.00	15.00	
	05/11/94	6555	JACQUEZ #3	FOUTZ	531	0.00	15.00	
	05/11/94	6556	LIKINS A#2	FOUTZ	832	0.00	7.50	
	05/11/94	6557	FLORENCE 111	FOUTZ	933	20.00	30.00	4
	05/11/94	6558	LINDSEY #1-A	FOUTZ	831	10.00	10.00	4
	05/11/94	6559	ELLIOT G.C. M#1	FOUTZ (ATENCIO)	23	10.00	10.00	1
	05/11/94	6560	LINDSEY #1-A	FOUTZ	931	10.00	10.00	4

-- CONDENSED RECAP ----------

CLIENT : EL PASO N.G. PAGE 1

JOB #	DATE COMP.	LOCATION	METER #	CONT	FILL	CELL
94022	05/02/94	FEDERAL G.C. 3-1		35.00	15.00	1
	05/02/94	GALLEGOS CYN. 152		30.00	40.00	1
	05/02/94	HOUCK D-1		75.00	75.00	1
	05/02/94	VALDEZ 2-2		60.00	70.00	1
	05/02/94	GIOMI B #1		105.00	150.00	1
	05/02/94	HEATH G.C L#1		45.00	60.00	1
				0.00	0.00	
	05/03/94	LAT H-37 DRIP Y2		50.00	65.00	1
	05/03/94	STATE G.C. N1		80.00	65.00	1
	05/03/94	JOHNSON 1E		20.00	20.00	1
	05/03/94	STATE COM BA1		40.00	40.00	1
	05/03/94	STATE COM AK 35E		40.00	40.00	1
	05/03/94	McGEE PARK		5.00	0.00	1
				0.00	0.00	
	05/04/94	TOMMY BOLACK #1DKGL		138.00	125.00	1
	05/04/94	JOHN SCHUMACHER #1		30.00	45.00	1
	05/04/94	PUPCO FED #1		30.00	60.00	1
	05/04/94	JOHNSON #1		0.00	10.00	
	05/04/94	FEDERAL G.C. E-1DK		10.00	20.00	1
	05/04/94	PAN AM FED G.U. D1		45.00	55.00	1
	05/04/94	PAN AM C 2E		10.00	20.00	1
	05/04/94	GRACE PIERCE #1		50.00	45.00	1
	05/04/94	HUBBELL #9		30.00	30.00	1
				0.00	0.00	
	05/05/94	BUNCE FED 1A		65.00	80.00	1
	05/05/94	HUBBELL #11		20.00	20.00	1
	05/05/94	HARE G.C. E-1		40.00	40.00	1
	05/05/94	CANDELARIA G.C. C#1		50.00	70.00	1
	05/05/94	JACQUEZ G.C. A#2		50.00	50.00	1
	05/05/94	JACQUEZ G.C. A#3E		45.00	50.00	1
	05/05/94	CANDELARIA G.C. A#1		60.00	60.00	1
				0.00	0.00	
	05/06/94	JAQUEZ G.C. A1A		50.00	80.00	1
	05/06/94	W.D. HEATH B#5		50.00	85.00	1
	05/06/94	MARTINEZ G.C. B-1		75.00	110.00	1
	05/06/94	JAQUEZ GAS A#4		45.00	45.00	1
	05/06/94	MANSFIELD #6		45.00	30.00	1
	05/06/94	FLORENCE #91		15.00	0.00	1
				0.00	0.00	
	05/09/94	E.E. ELLIOTT C1		55.00	100.00	1
	05/09/94	MANSFIELD #5		55.00	30.00	1
	05/09/94	FLORENCE #55		55.00	55.00	1
	05/09/94	FLORENCE #93		50.00	50.00	1
	05/09/94	STATE G.C. G8		105.00	110.00	1
	05/09/94	ELLIOTT CS CMX1		0.00	10.00	
				0.00	0.00	
	05/10/94	STATE COM H-9 FT	87240	60.00	90.00	1
	05/10/94	STATE COM H-9 PC	75875	60.00	70.00	1
	05/10/94	FLORENCE 107 PC	87017	60.00	60.00	1
	05/10/94	FLORENCE 107 FT	87018	30.00	30.00	1
	05/10/94	LAT 3-B-45	N/A	40.00	65.00	1
	05/10/94	STANDLIN G.C. C1	-----	0.00	45.00	
				0.00	0.00	
	05/11/94	ELLIOTT G.C. L#1	73144	85.00	75.00	1/4
	05/11/94	JACQUEZ #3	93828	125.00	140.00	1/4
	05/11/94	LIKINS A#2	74927	0.00	7.50	
	05/11/94	FLORENCE 111	94404	95.00	100.00	4

-- CONDENSED RECAP ----------

GLIENT : EL PASO N.G.

JOB #	DATE COMP.	LOCATION	METER #	CONT	FILL	CELL
94022	05/11/94	ELLIOTT G.C. M#1	73147	35.00	27.50	4
	05/11/94	ELLIOTT G.C. N#1	75126	45.00	60.00	4
	05/11/94	LOBATO G.C. F#1	75869	35.00	60.00	4
				0.00	0.00	
	05/12/94	LINDSEY #1A	71261	90.00	100.00	4
	05/12/94	LOBATO G.C. E#1	75166	130.00	130.00	4
	05/12/94	BASSETT #2	70119	65.00	80.00	4
	05/12/94	STEWART LS #4	71375	30.00	30.00	4
	05/12/94	LOBATO G.C. H#1	87592	75.00	130.00	4
	05/12/94	SANCHEZ #3	73818	55.00	40.00	4
				0.00	0.00	
	05/13/94	SCHULTZ COM C#7	71714	75.00	100.00	4
	05/13/94	ROCHELLE G.C. #1	72455	30.00	10.00	4
	05/13/94	WALKER COM #1	75879	45.00	55.00	4
	05/13/94	LACKEY #A3	70148	45.00	55.00	4
	05/13/94	STATE G.C. BR#1	94200	35.00	30.00	4
	05/13/94	STATE G.C. T#1	72046	35.00	70.00	4
	05/13/94	KELLY #4	73862	60.00	50.00	4
	05/13/94	FEUILLE A#5	73503	20.00	0.00	4
				0.00	0.00	
	05/16/94	STEWART LS #8	73027	20.00	60.00	4
	05/16/94	BASSETT B#1	93313	10.00	60.00	4
	05/16/94	STEWART LS #1	70117	70.00	130.00	4
	05/16/94	GAGE FED #1	70355	50.00	50.00	4
	05/16/94	MASROW G.C. #1	N/A	0.00	10.00	
	05/16/94	BASSETT FED #1	89542	30.00	50.00	4
	05/16/94	W.D. HEATH A #3A	93216	90.00	100.00	4
	05/16/94	BASSETT G.U. #1M	94595	40.00	40.00	4
				0.00	0.00	
	05/17/94	W.D. HEATH A#7	72400	60.00	100.00	4
	05/17/94	W.D. HEATH A#4	72098	90.00	160.00	4
	05/17/94	TRK"O" RES DRAIN PIT	N/A	30.00	0.00	4
	05/17/94	W.D. HEATH A#11	87476	60.00	60.00	4
	05/17/94	A.L. ELLIOTT B#2	70473	30.00	40.00	4
	05/17/94	LIKINS G.C. C#1	72413	50.00	50.00	4
	05/17/94	A.L. ELLIOTT B#4	72319	40.00	40.00	4
	05/17/94	HEATH G.C. N#1	87551	40.00	20.00	4
	05/17/94	A.L. ELLIOTT D#5	75945	40.00	0.00	4
				0.00	0.00	
	05/18/94	HEATH G.C. F#1	72505	40.00	60.00	4
	05/18/94	A.L. ELLIOTT D#7	03518	70.00	110.00	4
	05/18/94	DAY #3	90847	80.00	90.00	4
				0.00	0.00	
	05/19/94	GARTNER LS 7A	90001	130.00	220.00	4
	05/19/94	STATE COM #40 P2	87645	80.00	100.00	4
	05/19/94	STATE COM #40 P1	87645	20.00	20.00	4
	05/19/94	GARTNER LS 7	70327	140.00	140.00	4
	05/19/94	LAT A-11 DRIP	N/A	40.00	40.00	4
				0.00	0.00	
	05/20/94	JOHNSON FED #3A	89230	40.00	70.00	4
	05/20/94	STATE M#1	94626	20.00	80.00	4
	05/20/94	JOHNSON FED #3R	87046	40.00	60.00	4
	05/20/94	HAMNER #9	97213	70.00	70.00	4
	05/20/94	W.D. HEATH A#13	87549	40.00	40.00	4
	05/20/94	JOHNSON FED A1	89638	50.00	50.00	4
				0.00	0.00	
	05/23/94	VALENCIA G.C. C#1	87491	60.00	115.00	4

JOB #	DATE COMP.	LOCATION	METER #	CONT	FILL	CELL
94022	05/23/94	VALENCIA G.C. B#1	75199	30.00	40.00	4
	05/23/94	STANDARD OIL COM #1	70445	60.00	30.00	4
	05/23/94	TRUNK D LINE DRIP D8	N/A	50.00	70.00	4
	05/23/94	TRUNK D DRIP Y1	N/A	70.00	120.00	4
				0.00	0.00	
	05/24/94	GREEN COM #1	75323	75.00	140.00	4
	05/24/94	FLORENCE #85	75796	70.00	60.00	4
	05/24/94	THOMPSON LS #2	70501	0.00	90.00	
	05/24/94	DJ SIMMONS ET AL #1	75507	50.00	90.00	4
	05/24/94	DJ SIMMONS ET AL #5	75517	50.00	80.00	4
	05/24/94	C-61 LINE DRIP	N/A	50.00	40.00	4
				0.00	0.00	
	05/25/94	WEATHER STOP		0.00	0.00	
				0.00	0.00	
	05/26/27	WEATHER STOP		0.00	0.00	
				0.00	0.00	
	05/27/94	WEATHER STOP		0.00	0.00	
				0.00	0.00	
	05/30/94	HOLIDAY		0.00	0.00	
				0.00	0.00	
	05/31/94	RIDDLE G #2	87704	0.00	20.00	
	05/31/94	LAT C-7 DRIP Y1	N/A	50.00	95.00	4
	05/31/94	FLORENCE CLS 6A	94195	70.00	140.00	4
	05/31/94	FLORENCE CLS 7	74997	90.00	60.00	4
	05/31/94	BOLACK B #1	70221	70.00	50.00	4
			TOTALS :	5,773.00	7,195.00	

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/11/94	6561	JACQUEZ #3	FOUTZ	3	0.00	10.00	
	05/11/94	6562	LINDSEY #1-A	FOUTZ	3	10.00	10.00	4
	05/11/94	6563	ELLIOTT G.C. M#1	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/11/94	6564	JACQUEZ #3	FOUTZ	132	0.00	10.00	
	05/11/94	6565	LINDSEY #1-A	FOUTZ (C'DATED)	C-108	0.00	10.00	
	05/11/94	6566	ELLIOTT G.C. M#1	FOUTZ	531	15.00	0.00	4
	05/11/94	6567	ELLIOTT G.C. M#1	FOUTZ	531	0.00	7.50	
	05/11/94	6568	ELLIOT G.C. N#1	FOUTZ	832	15.00	15.00	4
	05/11/94	6569	FLORENCE 111	FOUTZ	831	10.00	20.00	4
	05/11/94	6570	ELLIOTT G.C. N#1	FOUTZ	831	10.00	10.00	4
	05/11/94	6571	ELLIOTT G.C. N#1	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/11/94	6572	FLORENCE 111	FOUTZ	931	0.00	10.00	
	05/11/94	6573	ELLIOTT G.C. N#1	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/11/94	6574	ELLIOTT G.C. N#1	FOUTZ	531	0.00	15.00	4
	05/11/94	6575	LOBATO G.C. F#1	FOUTZ	531	0.00	15.00	4
	05/11/94	6576	FLORENCE 111	FOUTZ (C'DATED)	C-108	20.00	20.00	4
	05/11/94	6577	FLORENCE 111	FOUTZ	3	20.00	10.00	4
	05/11/94	6578	ELLIOTT G.C. N#1	FOUTZ	132	0.00	10.00	
	05/11/94	6579	FLORENCE 111	FOUTZ	132	10.00	10.00	4
	05/11/94	6580	LOBATO G.C. F#1	FOUTZ	832	15.00	15.00	4
	05/11/94	6581	LOBATO G.C. F#1	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/11/94	6582	LOBATO G.C. F#1	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/11/94	6583	FLORENCE 111	FOUTZ	531	15.00	0.00	4
	05/12/94	6584	LINDSEY #1A	FOUTZ	131	10.00	10.00	4
	05/12/94	6585	LINDSEY #1A	FOUTZ	933	10.00	10.00	4
	05/12/94	6586	LINDSEY #1A	FOUTZ	832	30.00	30.00	4
	05/12/94	6587	LOBATO G.C. E#1	FOUTZ	3	20.00	30.00	4
	05/12/94	6588	LOBATO G.C. E#1	FOUTZ	132	20.00	30.00	4
	05/12/94	6589	LOBATO G.C. E#1	FOUTZ	531	30.00	30.00	4
	05/12/94	6590	LINDSEY #1A	FOUTZ	931	10.00	10.00	4
	05/12/94	6591	LOBATO G.C. E#1	FOUTZ (ATENCIO)	23	30.00	20.00	4
	05/12/94	6592	LOBATO G.C. E#1	FOUTZ (ATENCIO)	24	30.00	20.00	4
	05/12/94	6593	BASSETT #2	FOUTZ	831	20.00	20.00	4
	05/12/94	6594	STEWART LS #4	FOUTZ	931	10.00	10.00	4
	05/12/94	6595	LOBATO G.C. H#1	FOUTZ	132	20.00	20.00	4
	05/12/94	6596	STEWART LS #4	FOUTZ	131	10.00	10.00	4
	05/12/94	6597	LOBATO G.C. H#1	FOUTZ	3	20.00	20.00	4
	05/12/94	6598	BASSETT #2	FOUTZ	832	15.00	30.00	4
	05/12/94	6599	LOBATO G.C. H#1	FOUTZ (ATENCIO)	23	10.00	30.00	4
	05/12/94	6600	BASSETT #2	FOUTZ	933	10.00	10.00	4
	05/12/94	6601	STEWART LS #4	FOUTZ	933	10.00	10.00	4
	05/12/94	6602	LOBATO G.C H#1	FOUTZ	531	15.00	30.00	4
	05/12/94	6604	LOBATO G.C. H#1	FOUTZ (ATENCIO)	24	10.00	30.00	4
	05/12/94	6605	BASSETT #2	FOUTZ	931	10.00	10.00	4
	05/12/94	6606	BASSETT #2	FOUTZ	131	10.00	10.00	4
	05/12/94	6607	SANCHEZ #3	FOUTZ	832	15.00	0.00	4
	05/12/94	6608	SANCHEZ #3	FOUTZ	933	10.00	10.00	4
	05/12/94	6609	SANCHEZ #3	FOUTZ	931	10.00	10.00	4
	05/12/94	6610	SANCHEZ #3	FOUTZ	131	10.00	10.00	4
	05/12/94	6611	SANCHEZ #3	FOUTZ	831	10.00	10.00	4
	05/13/94	6612	SCHULTZ COM C#7	FOUTZ	831	20.00	20.00	4
	05/13/94	6613	ROCHELLE G.C. #1	FOUTZ	132	10.00	10.00	4
	05/13/94	6614	WALKER COM #1	FOUTZ	3	10.00	10.00	4
	05/13/94	6615	SCHULTZ COM C#7	FOUTZ	933	20.00	20.00	4
	05/13/94	6616	SCHULTZ COM C#7	FOUTZ	131	10.00	20.00	4
	05/13/94	6617	WALKER COM #1	FOUTZ	531	15.00	15.00	4
	05/13/94	6618	SCHULTZ COM C#7	FOUTZ	832	15.00	30.00	4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/13/94	6619	SCHULTZ COM C#7	FOUTZ	931	10.00	10.00	4
	05/13/94	6620	ROCHELLE G.C. #1	FOUTZ (ATENCIO)	23	10.00	0.00	4
	05/13/94	6621	ROCHELLE G.C. #1	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/13/94	6622	WALKER COM #1	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/13/94	6623	WALKER COM #1	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/13/94	6624	WALKER COM #1	FOUTZ	132	0.00	10.00	
	05/13/94	6625	LACKEY #A3	FOUTZ	132	10.00	10.00	4
	05/13/94	6626	STATE G.C. BR#1	FOUTZ	832	15.00	0.00	4
	05/13/94	6627	LACKEY #A3	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/13/94	6628	LACKEY #A3	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/13/94	6629	STATE G.C. BR#1	FOUTZ	131	10.00	0.00	4
	05/13/94	6630	LACKEY #A3	FOUTZ	3	10.00	10.00	4
	05/13/94	6631	STATE G.C. BR#1	FOUTZ	831	10.00	10.00	4
	05/13/94	6632	STATE G.C. T#1	FOUTZ	933	10.00	10.00	4
	05/13/94	6633	STATE G.C. BR#1	FOUTZ	933	0.00	10.00	
	05/13/94	6634	STATE G.C. BR#1	FOUTZ	931	0.00	10.00	
	05/13/94	6635	STATE G.C. T#1	FOUTZ	931	10.00	10.00	4
	05/13/94	6636	STATE G.C. T#1	FOUTZ	832	15.00	30.00	4
	05/13/94	6637	LACKEY #A3	FOUTZ	531	5.00	15.00	4
	05/13/94	6638	KELLY #4	FOUTZ	531	10.00	0.00	4
	05/13/94	6639	KELLY #4	FOUTZ	132	10.00	0.00	4
	05/13/94	6640	KELLY #4	FOUTZ (ATENCIO)	23	20.00	20.00	4
	05/13/94	6641	KELLY #4	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/13/94	6642	KELLY #4	FOUTZ	3	10.00	10.00	4
	05/13/94	6643	STATE G.C. T#1	FOUTZ	831	0.00	10.00	
	05/13/94	6644	FEUILLE A#5	FOUTZ	831	10.00	0.00	4
	05/13/94	6645	STATE G.C. T#1	FOUTZ	131	0.00	10.00	
	05/13/94	6646	FEUILLE A#5	FOUTZ	131	10.00	0.00	4
	05/16/94	6648	STEWART LS #8	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/16/94	6649	BASSETT B#1	FOUTZ	831	10.00	20.00	4
	05/16/94	6650	BASSETT B#1	FOUTZ	131	0.00	10.00	
	05/16/94	6651	BASSETT B#1	FOUTZ	132	0.00	10.00	
	05/16/94	6652	BASSETT B#1	FOUTZ	431	0.00	10.00	
	05/16/94	6653	STEWART LS #8	FOUTZ	3	10.00	20.00	4
	05/16/94	6654	STEWART LS #8	FOUTZ	432	0.00	10.00	
	05/16/94	6655	BASSETT B#1	FOUTZ	933	0.00	10.00	
	05/16/94	6656	STEWART LS #8	FOUTZ	731	0.00	10.00	
	05/16/94	6657	STEWART LS #1	FOUTZ	834	10.00	30.00	4
	05/16/94	6658	GAGE FED #1	FOUTZ	132	10.00	10.00	4
	05/16/94	6659	GAGE FED #1	FOUTZ	431	10.00	10.00	4
	05/16/94	6660	GAGE FED #1	FOUTZ	933	10.00	10.00	4
	05/16/94	6661	STEWART LS #1	FOUTZ	731	10.00	20.00	4
	05/16/94	6662	GAGE FED #1	FOUTZ	131	10.00	10.00	4
	05/16/94	6663	MASROW G.C. #1	FOUTZ	831	0.00	10.00	
	05/16/94	6664	GAGE FED #1	FOUTZ	831	10.00	10.00	4
	05/16/94	6665	STEWART LS #1	FOUTZ	432	10.00	20.00	4
	05/16/94	6666	STEWART LS #1	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/16/94	6667	STEWART LS #1	FOUTZ	3	10.00	10.00	4
	05/16/94	6668	STEWART LS #1	FOUTZ	132	10.00	10.00	4
	05/16/94	6669	STEWART LS #1	FOUTZ	431	10.00	20.00	4
	05/16/94	6670	BASSETT FED #1	FOUTZ	933	10.00	20.00	4
	05/16/94	6671	BASSETT FED #1	FOUTZ	831	10.00	20.00	4
	05/16/94	6672	BASSETT FED #1	FOUTZ	131	10.00	10.00	4
	05/16/94	6673	WD HEATH A #3A	FOUTZ	132	20.00	10.00	4
	05/16/94	6674	BASSETT G.U. #1M	FOUTZ	131	10.00	10.00	4
	05/16/94	6675	WD HEATH A #3A	FOUTZ	3	20.00	20.00	4
	05/16/94	6676	BASSETT G.U. #1M	FOUTZ	431	10.00	10.00	4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/16/94	6677	WD HEATH A #3A	FOUTZ	731	20.00	20.00	4
	05/16/94	6678	WD HEATH A #3A	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/16/94	6679	BASSETT G.U. #1M	FOUTZ	831	10.00	10.00	4
	05/16/94	6680	WD HEATH A #3A	FOUTZ	432	10.00	20.00	4
	05/16/94	6681	WD HEATH A #3A	FOUTZ	834	10.00	20.00	4
	05/16/94	6682	BASSETT G.U. #1M	FOUTZ	933	10.00	10.00	4
	05/17/94	6683	WD HEATH #7	FOUTZ (ATENCIO)	24	20.00	30.00	4
	05/17/94	6684	WD HEATH A#4	FOUTZ	831	20.00	40.00	4
	05/17/94	6685	WD HEATH A#4	FOUTZ	431	10.00	30.00	4
	05/17/94	6686	WD HEATH A#4	FOUTZ	131	20.00	30.00	4
	05/17/94	6687	WD HEATH A#4	FOUTZ	933	20.00	30.00	4
	05/17/94	6688	WD HEATH A#4	FOUTZ	132	20.00	30.00	4
	05/17/94	6689	WD HEATH A#7	FOUTZ	731	10.00	20.00	4
	05/17/94	6690	WD HEATH A#7	FOUTZ	432	10.00	20.00	4
	05/17/94	6691	WD HEATH A#7	FOUTZ	3	10.00	20.00	4
	05/17/94	6692	WD HEATH A#7	FOUTZ	834	10.00	10.00	4
	05/17/94	6693	TRK"O" RES DRAIN PIT	EL PASO	3902	30.00	0.00	4
	05/17/94	6694	WD HEATH A#11	FOUTZ	834	20.00	20.00	4
	05/17/94	6695	WD HEATH A#11	FOUTZ	731	10.00	10.00	4
	05/17/94	6696	WD HEATH A#11	FOUTZ	3	10.00	10.00	4
	05/17/94	6697	WD HEATH A#11	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/17/94	6698	WD HEATH A#11	FOUTZ	432	10.00	10.00	4
	05/17/94	6699	A L ELLIOTT B#2	FOUTZ	431	10.00	10.00	4
	05/17/94	6700	A L ELLIOTT B#2	FOUTZ	132	10.00	10.00	4
	05/17/94	6701	A L ELLIOTT B#2	FOUTZ	933	10.00	20.00	4
	05/17/94	6702	LIKINS G.C. C#1	FOUTZ	3	10.00	10.00	4
	05/17/94	6703	LIKINS G.C. C#1	FOUTZ	731	10.00	10.00	4
	05/17/94	6704	LIKINS G.C. C#1	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/17/94	6705	LIKINS G.C. C#1	FOUTZ	432	10.00	10.00	4
	05/17/94	6706	A L ELLIOTT B#4	FOUTZ	831	10.00	20.00	4
	05/17/94	6707	LIKINS G.C. C#1	FOUTZ	834	10.00	10.00	4
	05/17/94	6708	A L ELLIOTT B#4	FOUTZ	131	10.00	10.00	4
	05/17/94	6709	A L ELLIOTT B#4	FOUTZ	431	10.00	10.00	4
	05/17/94	6710	HEATH G.C. N#1	FOUTZ	731	10.00	10.00	4
	05/17/94	6711	HEATH G.C. N#1	FOUTZ	3	10.00	10.00	4
	05/17/94	6712	HEATH G.C. N#1	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/17/94	6713	A L ELLIOTT B#4	FOUTZ	132	10.00	0.00	4
	05/17/94	6714	HEATH G.C. N#1	FOUTZ	432	10.00	0.00	4
	05/17/94	6715	A L ELLIOTT D#5	FOUTZ	131	10.00	0.00	4
	05/17/94	6716	A L ELLIOTT D#5	FOUTZ	431	10.00	0.00	4
	05/17/94	6717	A L ELLIOTT D#5	FOUTZ	834	10.00	0.00	4
	05/17/94	6718	A L ELLIOTT D#5	FOUTZ	131	10.00	0.00	4
	05/18/94	6719	HEATH G.C. F#1	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/18/94	6720	HEATH G.C. F#1	FOUTZ	731	10.00	10.00	4
	05/18/94	6721	A L ELLIOTT D#7	FOUTZ	831	10.00	30.00	4
	05/18/94	6722	A L ELLIOTT D#7	FOUTZ	431	10.00	20.00	4
	05/18/94	6723	A L ELLIOTT D#7	FOUTZ	933	10.00	20.00	4
	05/18/94	6724	HEATH G.C. F#1	FOUTZ	834	10.00	10.00	4
	05/18/94	6725	A L ELLIOTT D#7	FOUTZ	131	10.00	20.00	4
	05/18/94	6726	HEATH G.C. F#1	FOUTZ	432	10.00	10.00	4
	05/18/94	6727	A L ELLIOTT D#7	FOUTZ	132	10.00	20.00	4
	05/18/94	6728	HEATH G.C. F#1	FOUTZ	409	0.00	10.00	4
	05/18/94	6731	GARTNER LS 7A	FOUTZ	432	10.00	20.00	4
	05/18/94	6732	A L ELLIOTT D#7	FOUTZ	409	10.00	0.00	4
	05/18/94	6733	A L ELLIOTT D#7	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/18/94	6734	GARTNER LS 7A	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/18/94	6735	DAY #3	FOUTZ	933	10.00	20.00	4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/18/94	6736	GARTNER LS 7A	FOUTZ	731	20.00	10.00	4
	05/18/94	6738	GARTNER LS 7A	FOUTZ	834	20.00	20.00	4
	05/18/94	6739	DAY #3	FOUTZ	831	20.00	20.00	4
	05/18/94	6740	DAY #3	FOUTZ	132	20.00	10.00	4
	05/18/94	6741	DAY #3	FOUTZ	431	20.00	20.00	4
	05/18/94	6742	GARTNER LS 7A	FOUTZ	409	10.00	10.00	4
	05/18/94	6743	DAY #3	FOUTZ	131	10.00	20.00	4
	05/19/94	6744	STATE COM #40 P2	FOUTZ	132	10.00	20.00	4
	05/19/94	6745	GARTNER LS 7A	FOUTZ	431	0.00	10.00	
	05/19/94	6746	GARTNER LS 7A	FOUTZ	731	10.00	20.00	4
	05/19/94	6747	STATE COM #40 P2	FOUTZ	131	20.00	20.00	4
	05/19/94	6748	STATE COM #40 P2	FOUTZ	933	20.00	20.00	4
	05/19/94	6749	GARTNER LS 7A	FOUTZ	432	10.00	20.00	4
	05/19/94	6750	GARTNER LS 7A	FOUTZ	409	10.00	20.00	4
	05/19/94	6951	GARTNER LS 7A	FOUTZ (ATENCIO)	23	10.00	20.00	4
	05/19/94	6952	GARTNER LS 7A	FOUTZ	834	10.00	20.00	4
	05/19/94	6953	GARTNER LS 7A	FOUTZ	931	0.00	10.00	
	05/19/94	6954	STATE COM #40 P2	FOUTZ	431	10.00	20.00	4
	05/19/94	6955	GARTNER LS 7A	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/19/94	6956	GARTNER LS 7A	FOUTZ	933	0.00	10.00	
	05/19/94	6957	STATE COM #40 P1	FOUTZ	132	20.00	20.00	4
	05/19/94	6959	GARTNER LS 7	FOUTZ	731	20.00	20.00	4
	05/19/94	6960	GARTNER LS 7	FOUTZ	432	20.00	20.00	4
	05/19/94	6961	LAT A-11 DRIP	FOUTZ	409	0.00	10.00	4
	05/19/94	6962	LAT A-11 DRIP	FOUTZ	931	0.00	10.00	
	05/19/94	6963	STATE COM #40 P2	FOUTZ	931	20.00	20.00	4
	05/19/94	6964	GARTNER LS 7	FOUTZ	531	30.00	30.00	4
	05/19/94	6965	GARTNER LS 7	FOUTZ	431	10.00	10.00	4
	05/19/94	6966	GARTNER LS 7	FOUTZ (ATENCIO)	23	20.00	20.00	4
	05/19/94	6967	GARTNER LS 7	FOUTZ (ATENCIO)	24	20.00	20.00	4
	05/19/94	6968	GARTNER LS 7	FOUTZ	834	20.00	20.00	4
	05/19/94	6969	LAT A-11 DRIP	FOUTZ	933	10.00	10.00	4
	05/19/94	6970	LAT A-11 DRIP	FOUTZ	431	10.00	10.00	4
	05/19/94	6971	LAT A-11 DRIP	FOUTZ	131	10.00	0.00	4
	05/19/94	6972	LAT A-11 DRIP	FOUTZ	132	10.00	0.00	4
	05/20/94	6973	JOHNSON FED #3A	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/20/94	6974	JOHNSON FED #3A	FOUTZ (ATENCIO)	23	10.00	20.00	4
	05/20/94	6975	STATE M#1	FOUTZ	933	10.00	10.00	4
	05/20/94	6976	JOHNSON FED #3A	FOUTZ	834	10.00	10.00	4
	05/20/94	6977	STATE M#1	FOUTZ	831	10.00	20.00	4
	05/20/94	6979	JOHNSON FED #3A	FOUTZ	432	10.00	10.00	4
	05/20/94	6980	STATE M#1	FOUTZ	131	0.00	10.00	
	05/20/94	6981	JOHNSON FED #3R	FOUTZ	731	10.00	20.00	4
	05/20/94	6982	STATE M#1	FOUTZ	132	0.00	20.00	
	05/20/94	6983	JOHNSON FED #3R	FOUTZ	409	10.00	10.00	4
	05/20/94	6984	HAMNER #9	FOUTZ	931	10.00	20.00	4
	05/20/94	6985	W.D. HEATH A#13	FOUTZ	131	10.00	10.00	4
	05/20/94	6986	W.D. HEATH A#13	FOUTZ	831	10.00	10.00	4
	05/20/94	6987	JOHNSON FED #3R	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/20/94	6988	JOHNSON FED #3R	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/20/94	6989	JOHNSON FED #3A	FOUTZ	409	0.00	10.00	
	05/20/94	6990	JOHNSON FED #3R	FOUTZ	432	0.00	10.00	
	05/20/94	6991	JOHNSON FED #1A	FOUTZ	432	10.00	10.00	4
	05/20/94	6992	JOHNSON FED #3R	FOUTZ	834	0.00	10.00	
	05/20/94	6993	JOHNSON FED #1A	FOUTZ	834	10.00	10.00	4
	05/20/94	6994	W.D. HEATH A#13	FOUTZ	931	10.00	10.00	4
	05/20/94	6995	JOHNSON FED #1A	FOUTZ	409	10.00	0.00	4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/20/94	6996	W.D. HEATH A#13	FOUTZ	933	10.00	10.00	4
	05/20/94	6997	JOHNSON FED #1A	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/20/94	6999	JOHNSON FED #1A	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/20/94	0251	STATE M#1	FOUTZ	431	0.00	20.00	
	05/20/94	0252	HAMNER #9	FOUTZ	431	10.00	20.00	4
	05/20/94	0253	HAMNER #9	FOUTZ	132	10.00	10.00	4
	05/20/94	0254	HAMNER #9	FOUTZ	831	20.00	10.00	4
	05/20/94	0255	HAMNER #9	FOUTZ	933	10.00	10.00	4
	05/20/94	0256	HAMNER #9	FOUTZ	131	10.00	0.00	4
	05/23/94	0257	VALENCIA G.C. C#1	FOUTZ	131	10.00	20.00	4
	05/23/94	0258	VALENCIA G.C. C#1	FOUTZ	431	20.00	30.00	4
	05/23/94	0259	TRUNK D DRIP Y1	FOUTZ (ATENCIO)	23	20.00	30.00	4
	05/23/94	0260	TRUNK D DRIP Y1	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/23/94	0261	VALENCIA G.C. C#1	FOUTZ	933	10.00	20.00	4
	05/23/94	0262	TRUNK D DRIP Y1	FOUTZ	409	10.00	20.00	4
	05/23/94	0263	TRUNK D DRIP Y1	FOUTZ	834	10.00	20.00	4
	05/23/94	0264	VALENCIA G.C. C#1	FOUTZ	132	10.00	20.00	4
	05/23/94	0265	VALENCIA G.C. C#1	FOUTZ	931	10.00	10.00	4
	05/23/94	0266	TRUNK D DRIP Y1	FOUTZ	432	10.00	10.00	4
	05/23/94	0267	TRUNK D DRIP Y1	FOUTZ	731	10.00	20.00	4
	05/23/94	0268	VALENCIA G.C. B#1	FOUTZ	831	10.00	20.00	4
	05/23/94	0269	VALENCIA G.C. B#1	FOUTZ	132	10.00	10.00	4
	05/23/94	0270	VALENCIA G.C. B#1	FOUTZ	131	10.00	10.00	4
	05/23/94	0271	VALENCIA G.C. C#1	FOUTZ	531	0.00	15.00	
	05/23/94	0272	GREEN COM #1	FOUTZ	131	10.00	20.00	4
	05/23/94	0273	THOMPSON LS #2	FOUTZ	832	0.00	30.00	
	05/23/94	0274	TRUNK D LINE DRIP D8	FOUTZ	834	10.00	20.00	4
	05/23/94	0275	TRUNK D LINE DRIP D8	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/23/94	0277	TRUNK D LINE DRIP D8	FOUTZ	432	10.00	20.00	4
	05/23/94	0278	TRUNK D LINE DRIP D8	FOUTZ	731	10.00	10.00	4
	05/23/94	0279	GREEN COM #1	FOUTZ	931	10.00	10.00	4
	05/23/94	0280	TRUNK D LINE DRIP D8	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/23/94	0281	GREEN COM #1	FOUTZ	431	10.00	10.00	4
	05/23/94	0282	GREEN COM #1	FOUTZ	831	10.00	10.00	4
	05/23/94	0283	GREEN COM #1	FOUTZ	132	10.00	10.00	4
	05/23/94	0284	GREEN COM #1	FOUTZ	531	15.00	30.00	4
	05/23/94	0286	GREEN COM #1	FOUTZ (ATENCIO)	24	10.00	0.00	4
	05/23/94	0287	FLORENCE #85	FOUTZ (ATENCIO)	24	0.00	10.00	
	05/23/94	0288	STANDARD OIL COM #1	FOUTZ	431	20.00	10.00	4
	05/23/94	0289	STANDARD OIL COM #1	FOUTZ	831	20.00	10.00	4
	05/23/94	0290	STANDARD OIL COM #1	FOUTZ	933	10.00	10.00	4
	05/23/94	0291	FLORENCE #85	FOUTZ	731	10.00	0.00	4
	05/23/94	0292	FLORENCE #85	FOUTZ	432	10.00	0.00	4
	05/23/94	0293	FLORENCE #85	FOUTZ	834	10.00	0.00	4
	05/23/94	0294	FLORENCE #85	FOUTZ (ATENCIO)	23	10.00	0.00	4
	05/23/94	0295	STANDARD OIL COM #1	FOUTZ	131	10.00	0.00	4
	05/24/94	0296	GREEN COM #1	FOUTZ	131	0.00	10.00	
	05/24/94	0297	GREEN COM #1	FOUTZ	431	0.00	10.00	
	05/24/94	0298	FLORENCE #85	FOUTZ (ATENCIO)	24	0.00	10.00	
	05/24/94	0299	FLORENCE #85	FOUTZ (ATENCIO)	23	10.00	20.00	4
	05/24/94	0300	GREEN COM #1	FOUTZ	831	0.00	10.00	
	05/24/94	0301	DJ SIMMONS ET AL #1	FOUTZ	933	10.00	20.00	4
	05/24/94	0302	FLORENCE #85	FOUTZ	432	10.00	10.00	4
	05/24/94	0304	DJ SIMMONS ET AL #1	FOUTZ	731	10.00	20.00	4
	05/24/94	0305	THOMPSON LS #2	FOUTZ	531	0.00	30.00	
	05/24/94	0306	THOMPSON LS #2	FOUTZ	832	0.00	30.00	
	05/24/94	0307	FLORENCE #85	FOUTZ	409	10.00	10.00	4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	05/24/94	0309	DJ SIMMONS ET AL #1	FOUTZ	132	10.00	20.00	4
	05/24/94	0310	DJ SIMMONS ET AL #1	FOUTZ	131	10.00	20.00	4
	05/24/94	0311	DJ SIMMONS ET AL #1	FOUTZ	831	10.00	20.00	4
	05/24/94	0312	GREEN COM #1	FOUTZ	132	0.00	10.00	
	05/24/94	0314	GREEN COM #1	FOUTZ	431	0.00	10.00	
	05/24/94	0315	DJ SIMMONS ET AL #1	FOUTZ	431	10.00	10.00	4
	05/24/94	0316	DJ SIMMONS ET AL #5	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/24/94	0317	DJ SIMMONS ET AL #5	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/24/94	0318	DJ SIMMONS ET AL #5	FOUTZ	409	10.00	10.00	4
	05/24/94	0319	LAT C-7 DRIP Y1	FOUTZ	832	0.00	10.00	
	05/24/94	0320	RIDDEL G #2	FOUTZ	831	0.00	10.00	
	05/24/94	0321	LAT C-7 DRIP Y1	FOUTZ	531	0.00	15.00	
	05/24/94	0322	DJ SIMMONS ET AL #5	FOUTZ	432	0.00	10.00	
	05/24/94	0323	C-61 LINE DRIP	FOUTZ	432	10.00	10.00	4
	05/24/94	0324	C-61 LINE DRIP	FOUTZ	132	0.00	10.00	
	05/24/94	0325	C-61 LINE DRIP	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/24/94	0326	C-61 LINE DRIP	FOUTZ (ATENCIO)	24	10.00	10.00	4
	05/24/94	0327	C-61 LINE DRIP	FOUTZ	834	10.00	0.00	4
	05/24/94	0328	C-61 LINE DRIP	FOUTZ	731	10.00	0.00	4
	05/24/94	0303	DJ SIMMONS ET AL #5	FOUTZ	834	10.00	20.00	4
	05/24/94	0313	RIDDEL G #2	FOUTZ	409	0.00	10.00	
	05/25/94	****	WEATHER STOP			0.00	0.00	
	05/26/94	****	WEATHER STOP			0.00	0.00	
	05/27/94	****	WEATHER STOP			0.00	0.00	
	05/30/94	****	HOLIDAY			0.00	0.00	
	05/31/94	0329	FLORENCE CLS 6A	FOUTZ	834	10.00	20.00	4
	05/31/94	0330	FLORENCE CLS 6A	FOUTZ	731	10.00	20.00	4
	05/31/94	0331	FLORENCE CLS 6A	FOUTZ	409	10.00	20.00	4
	05/31/94	0332	FLORENCE CLS 6A	FOUTZ (ATENCIO)	24	10.00	20.00	4
	05/31/94	0333	FLORENCE CLS 6A	FOUTZ	432	10.00	20.00	4
	05/31/94	0334	FLORENCE CLS 6A	FOUTZ	132	10.00	20.00	4
	05/31/94	0335	LAT C-7 DRIP Y1	FOUTZ	131	10.00	20.00	4
	05/31/94	0336	LAT C-7 DRIP Y1	FOUTZ	933	10.00	20.00	4
	05/31/94	0337	LAT C-7 DRIP Y1	FOUTZ	831	10.00	10.00	4
	05/31/94	0338	LAT C-7 DRIP Y1	FOUTZ	431	10.00	10.00	4
	05/31/94	0339	LAT C-7 DRIP Y1	FOUTZ	L-37	10.00	10.00	4
	05/31/94	0340	FLORENCE CLS 6A	FOUTZ (ATENCIO)	23	10.00	20.00	4
	05/31/94	0341	FLORENCE CLS 7	FOUTZ (ATENCIO)	24	20.00	10.00	4
	05/31/94	0342	BOLACK B #1	FOUTZ	831	10.00	10.00	4
	05/31/94	0343	FLORENCE CLS 7	FOUTZ	432	20.00	10.00	4
	05/31/94	0344	FLORENCE CLS 7	FOUTZ	834	20.00	10.00	4
	05/31/94	0345	BOLACK B #1	FOUTZ	431	20.00	10.00	4
	05/31/94	0346	FLORENCE CLS 7	FOUTZ	409	10.00	10.00	4
	05/31/94	0347	BOLACK B #1	FOUTZ	L-37	10.00	10.00	4
	05/31/94	0348	BOLACK B #1	FOUTZ	933	10.00	10.00	4
	05/31/94	0349	FLORENCE CLS 7	FOUTZ (ATENCIO)	23	10.00	10.00	4
	05/31/94	0350	FLORENCE CLS 7	FOUTZ	731	10.00	10.00	4
	05/31/94	0351	BOLACK B #1	FOUTZ	131	10.00	10.00	4
	05/31/94	0352	BOLACK B #1	FOUTZ	132	10.00	0.00	4
				TOTALS :		5,773.00	7,195.00	

CLIENT : EL PASO N.G. PAGE 1

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	04/15/94	1515	CRAWFORD G.C. B1E	FOUTZ	933	20.00	20.00	1
	04/15/94	1516	CRAWFORD G.C. B1E	FOUTZ	931	20.00	20.00	1
	04/15/94	1517	CRAWFORD G.C. B1E	FOUTZ	632	20.00	20.00	1
	04/15/94	1518	CRAWFORD G.C. B1E	FOUTZ	731	20.00	20.00	1
	04/15/94	1519	CRAWFORD G.C. B1	FOUTZ	933	20.00	20.00	1
	04/15/94	1520	CRAWFORD G.C. B1	FOUTZ	632	20.00	20.00	1
	04/15/94	1521	CRAWFORD G.C. B1	FOUTZ	731	20.00	20.00	1
	04/15/94	1522	CRAWFORD G.C. B1	FOUTZ	931	15.00	10.00	1
	04/15/94	1523	JONES G.C. 1X	FOUTZ	931	15.00	10.00	1
	04/15/94	1524	JONES G.C. 1X	FOUTZ	731	20.00	10.00	1
	04/15/94	1525	JONES G.C. 1X	FOUTZ	931	20.00	10.00	1
	04/15/94	1526	JONES G.C. 1X	FOUTZ	632	20.00	10.00	1
	04/18/94	1527	OSWELL FEDERAL #1	FOUTZ	432	15.00	15.00	1
	04/18/94	1528	FOGELSON 8-1	FOUTZ	931	10.00	10.00	1
	04/18/94	1529	OSWELL FEDERAL #1	FOUTZ	431	15.00	15.00	1
	04/18/94	1530	FOGELSON 8-1	FOUTZ	731	26.00	30.00	1
	04/18/94	1531	FOGELSON 8-1	FOUTZ	632	20.00	20.00	1
	04/18/94	1532	FOGELSON 8-1	FOUTZ	933	20.00	20.00	1
	04/18/94	1533	JONES G.C. 1X	FOUTZ	731	4.00	0.00	1
	04/18/94	1534	FOGELSON 4-1	FOUTZ	731	20.00	20.00	1
	04/18/94	1535	FOGELSON 4-1	FOUTZ	933	20.00	20.00	1
	04/18/94	1536	OSWELL FEDERAL #1	FOUTZ	632	10.00	10.00	1
	04/18/94	1537	OSWELL FEDERAL #1	FOUTZ	931	10.00	10.00	1
	04/18/94	1538	FOGELSON 4-1	FOUTZ	632	10.00	10.00	1
	04/18/94	1539	FOGELSON 4-1	FOUTZ	931	10.00	10.00	1
	04/18/94	1540	3B LINE DRIP	FOUTZ	632	6.00	20.00	1
	04/18/94	1541	3B LINE DRIP	FOUTZ	931	20.00	30.00	1
	04/18/94	1542	3B LINE DRIP	FOUTZ	933	20.00	30.00	1
	04/18/94	1543	3B LINE DRIP	FOUTZ	731	10.00	20.00	1
	04/18/94	1544	FEDERAL B #1	FOUTZ	731	10.00	20.00	1
	04/18/94	1545	3B LINE DRIP	FOUTZ	931	6.00	0.00	1
	04/18/94	1546	FEDERAL B #1	FOUTZ	931	4.00	0.00	1
	04/19/94	1547	McGEE 1E	FOUTZ	431	15.00	30.00	1
	04/19/94	1548	McGEE 1E	FOUTZ	632	10.00	20.00	1
	04/19/94	1549	McGEE 1E	FOUTZ	432	15.00	30.00	1
	04/19/94	1550	STATE COM AH 30-E	FOUTZ	931	20.00	30.00	1
	04/19/94	1551	STATE COM AH 30-E	FOUTZ (ATENCIO)	23	15.00	20.00	1
	04/19/94	1552	STATE COM AH 30-E	FOUTZ (ATENCIO)	24	10.00	20.00	1
	04/19/94	1553	McGEE #1 FEE	FOUTZ	731	7.00	0.00	1
	04/19/94	1554	McGEE 1-E	FOUTZ	731	17.00	20.00	1
	04/19/94	1555	McGEE 1-E	FOUTZ	933	20.00	20.00	1
	04/19/94	1556	ROWLAND G.C. 1E	FOUTZ (ATENCIO)	23	15.00	20.00	1
	04/19/94	1557	ROWLAND G.C. 1E	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/19/94	1558	ROWLAND G.C. 1E	FOUTZ	931	10.00	20.00	1
	04/19/94	1559	MADDOX D FED. COM #1	FOUTZ	632	10.00	10.00	1
	04/19/94	1560	MADDOX D FED. COM #1	FOUTZ	933	10.00	10.00	1
	04/19/94	1561	MADDOX D FED. COM #1	FOUTZ (ATENCIO)	23	10.00	10.00	1
	04/19/94	1562	MADDOX D FED. COM #1	FOUTZ	432	15.00	0.00	1
	04/19/94	1563	MADDOX WN FED. #3	FOUTZ	931	10.00	10.00	1
	04/19/94	1564	BELL FED COM B-1E	FOUTZ (ATENCIO)	24	5.00	10.00	1
	04/19/94	1565	MADDOX D FED COM #1	FOUTZ	431	4.00	0.00	1
	04/19/94	1567	MADDOX WN FED #3	FOUTZ (ATENCIO)	24	5.00	0.00	1
	04/19/94	1568	BELL FED COM B-1E	FOUTZ (ATENCIO)	23	10.00	10.00	1
	04/20/94	1569	McCORD 11-DK	FOUTZ	933	10.00	10.00	1
	04/20/94	1570	McCORD 11-DK	FOUTZ	731	10.00	10.00	1
	04/20/94	1571	TAFT G.C. 1	FOUTZ	931	30.00	30.00	1
	04/20/94	1572	McCORD 11-DK	FOUTZ	632	10.00	10.00	1

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	04/20/94	1573	TAFT G.C. 1	FOUTZ	933	20.00	20.00	1
	04/20/94	1701	J.F. BELL #2	FOUTZ	731	10.00	10.00	1
	04/20/94	1702	J.F. BELL #2	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/20/94	1703	J.F. BELL #2	FOUTZ	931	10.00	10.00	1
	04/20/94	1704	J.F. BELL #2	FOUTZ	632	10.00	10.00	1
	04/21/94	1705	LEE FEDERAL 1	FOUTZ	933	10.00	0.00	1
	04/21/94	1706	LEE FEDERAL 1	FOUTZ	731	10.00	0.00	1
	04/21/94	1707	MADDOX CWN FED COM 1	FOUTZ	931	10.00	0.00	1
	04/21/94	1708	FEDERAL #1	FOUTZ	632	10.00	10.00	1
	04/21/94	1709	FEDERAL #1	FOUTZ	933	10.00	20.00	1
	04/21/94	1710	FEDERAL #1	FOUTZ	731	10.00	20.00	1
	04/21/94	1711	FEDERAL #1	FOUTZ	931	6.00	10.00	1
	04/21/94	1712	RAINBOW SEEKER #1	FOUTZ	931	4.00	0.00	1
	04/21/94	1713	BELL A-1	FOUTZ	931	10.00	20.00	1
	04/21/94	1714	BELL 8-1	FOUTZ	933	10.00	10.00	1
	04/21/94	1715	BELL 8-1	FOUTZ	731	10.00	10.00	1
	04/22/94	1716	HANCOCK 1A	FOUTZ (ATENCIO)	24	5.00	10.00	1
	04/22/94	1717	HORTON LS 1-A	FOUTZ	431	30.00	30.00	1
	04/22/94	1718	HORTON LS 1-A	FOUTZ	531	30.00	45.00	1
	04/22/94	1719	HORTON LS 1-A	FOUTZ	432	30.00	30.00	1
	04/22/94	1720	HANCOCK 1A	FOUTZ	931	10.00	10.00	1
	04/22/94	1721	HANCOCK 1A	FOUTZ	731	10.00	10.00	1
	04/22/94	1722	LAT-837 DRIP Y3	FOUTZ (ATENCIO)	24	5.00	10.00	1
	04/22/94	1723	LAT-837 DRIP Y3	FOUTZ	933	10.00	10.00	1
	04/22/94	1724	LAT-837 DRIP Y3	FOUTZ	931	10.00	10.00	1
	04/22/94	1725	LAT-837 DRIP Y3	FOUTZ	731	10.00	10.00	1
	04/22/94	1729	AZTEC PC COMP.	FOUTZ	531	15.00	15.00	1
	04/22/94	1730	NICKELS #1M	FOUTZ (ATENCIO)	24	20.00	10.00	1
	04/22/94	1731	AZTEC PC COMP.	FOUTZ	432	15.00	30.00	1
	04/22/94	1732	AZTEC PC COMP.	FOUTZ	431	15.00	15.00	1
	04/22/94	1733	NICKELS #1M	FOUTZ	931	10.00	0.00	1
	04/22/94	1734	NICKELS #1M	FOUTZ	431	15.00	15.00	1
	04/22/94	1735	NICKELS #1M	FOUTZ	731	10.00	10.00	1
	04/22/94	1736	NICKELS #1M	FOUTZ	933	10.00	0.00	1
	04/22/94	1737	NICKELS #1M	FOUTZ	531	15.00	0.00	1
	04/22/94	1738	NICKELS #1M	FOUTZ	432	15.00	0.00	1
	04/25/94	1739	NEWBERRY 12 MD	FOUTZ	431	15.00	15.00	1
	04/25/94	1740	NEWBERRY 12 MD	FOUTZ	531	15.00	30.00	1
	04/25/94	1741	NEWBERRY 12 MD	FOUTZ	931	10.00	10.00	1
	04/25/94	1742	NICKELS #1M	FOUTZ (ATENCIO)	23	3.00	10.00	1
	04/25/94	1743	NEWBERRY 12 MD	FOUTZ	731	15.00	20.00	1
	04/25/94	1744	NEWBERRY 12 MD	FOUTZ	432	15.00	15.00	1
	04/25/94	1745	NEWBERRY 12 MD	FOUTZ (ATENCIO)	23	7.00	10.00	1
	04/25/94	1746	JAQUEZ JOSE 1 DK	FOUTZ	931	50.00	60.00	1
	04/25/94	1747	JAQUEZ JOSE 1 DK	FOUTZ (ATENCIO)	23	50.00	50.00	1
	04/25/94	1748	STANDLIN B1	FOUTZ	431	15.00	15.00	1
	04/25/94	1749	STANDLIN B1	FOUTZ	432	15.00	15.00	1
	04/25/94	1750	STANDLIN B1	FOUTZ	731	5.00	10.00	1
	04/25/94	1751	STANDLIN B1	FOUTZ	933	10.00	10.00	1
	04/25/94	1752	RUBY CORSCOT #1	FOUTZ (ATENCIO)	23	20.00	10.00	1
	04/25/94	1753	RUBY CORSCOT #1	FOUTZ	931	20.00	10.00	1
	04/25/94	1754	STANDLIN B1	FOUTZ	531	15.00	0.00	1
	04/25/94	1755	RUBY CORSCOT #1	FOUTZ	731	20.00	10.00	1
	04/26/94	1756	JOHNSON D1	FOUTZ	531	4.00	15.00	1
	04/26/94	1757	FLORA VISTA #1	FOUTZ	432	15.00	25.00	1
	04/26/94	1758	JOHNSON G.C. D#1	FOUTZ	431	15.00	0.00	1
	04/26/94	1759	STANDLIN B1	FOUTZ	933	0.00	10.00	

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	04/26/94	1760	JOHNSON G.C. 1E	FOUTZ (ATENCIO)	24	0.00	10.00	
	04/26/94	1761	HAMPTON #3	FOUTZ	931	20.00	30.00	1
	04/26/94	1762	HAMPTON #3	FOUTZ	731	10.00	20.00	1
	04/26/94	1763	HAMPTON #3	FOUTZ (ATENCIO)	24	20.00	30.00	1
	04/26/94	1764	STANDLIN B1	FOUTZ	431	0.00	15.00	
	04/26/94	1765	TURNER 1A	FOUTZ	731	10.00	10.00	1
	04/26/94	1766	FLORA VISTA #1	FOUTZ	531	26.00	15.00	1
	04/26/94	1767	TURNER 1A	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/26/94	1768	TURNER 1A	FOUTZ	933	10.00	10.00	1
	04/26/94	1769	JOHNSON D1	FOUTZ	432	0.00	5.00	
	04/26/94	1770	SANDIA FEDERAL #1	FOUTZ	531	15.00	15.00	1
	04/26/94	1771	TURNER 1A	FOUTZ	931	10.00	10.00	1
	04/26/94	1772	FOGELSON 9-1	FOUTZ	933	10.00	10.00	1
	04/26/94	1773	SANDIA FEDERAL #1	FOUTZ	432	15.00	0.00	1
	04/26/94	1774	FOGELSON 9-1	FOUTZ	731	20.00	10.00	1
	04/26/94	1775	FOGELSON 9-1	FOUTZ	931	10.00	10.00	1
	04/27/94	1776	CANEPLE G.C. #1	FOUTZ	432	30.00	30.00	1
	04/27/94	1777	CANEPLE G.C. #1	FOUTZ	531	30.00	30.00	1
	04/27/94	1778	GALLEGOS CYN. 188E	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/27/94	1779	GALLEGOS CYN. 145	FOUTZ	731	10.00	20.00	1
	04/27/94	1780	GALLEGOS CYN. 188E	FOUTZ	933	10.00	20.00	1
	04/27/94	1781	GALLEGOS CYN. 188E	FOUTZ	931	10.00	10.00	1
	04/27/94	1782	GALLEGOS CYN. 145	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/27/94	1783	GALLEGOS CYN. 145E	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/27/94	1784	GALLEGOS CYN. 145	FOUTZ	933	10.00	20.00	1
	04/27/94	1785	COLDIRON COM. A1	FOUTZ	432	15.00	15.00	1
	04/27/94	1786	GALLEGOS CYN. 145E	FOUTZ	933	10.00	10.00	1
	04/27/94	1787	GALLEGOS CYN. 145E	FOUTZ	731	10.00	10.00	1
	04/27/94	1788	COLDIRON COM. A1	FOUTZ	931	20.00	10.00	1
	04/27/94	1789	COLDIRON COM. A1	FOUTZ	531	15.00	15.00	1
	04/27/94	1790	GALLEGOS CYN. 142	FOUTZ	933	10.00	10.00	1
	04/27/94	1792	GALLEGOS CYN. 142	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/27/94	1793	GALLEGOS CYN. 142	FOUTZ	731	10.00	0.00	1
	04/27/94	1794	FOREST #2	FOUTZ	432	0.00	15.00	
	04/28/94	1791	BURINGTON G.C. #1	FOUTZ	531	45.00	39.00	1
	04/28/94	1795	GALLEGOS CYN. 160	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/28/94	1796	GALLEGOS CYN. 160	FOUTZ	931	10.00	10.00	1
	04/28/94	1797	GALLEGOS CYN. 160	FOUTZ	933	10.00	15.00	1
	04/28/94	1798	GALLEGOS CYN. 160	FOUTZ	131	10.00	20.00	1
	04/28/94	1799	GALLEGOS CYN. 142E	FOUTZ (ATENCIO)	24	10.00	20.00	1
	04/28/94	1800	GALLEGOS CYN. 142E	FOUTZ	931	10.00	20.00	1
	04/28/94	4051	BURINGTON G.C. #1	FOUTZ	432	30.00	30.00	1
	04/28/94	4052	FOREST #3	FOUTZ	531	0.00	6.00	
	04/28/94	4053	VALDEZ A1E DK	FOUTZ	933	40.00	45.00	1
	04/28/94	4054	VALDEZ A1E DK	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/28/94	4055	VALDEZ A1E ACH	FOUTZ	731	10.00	20.00	1
	04/28/94	4056	VALDEZ A1E DK	FOUTZ	931	20.00	20.00	1
	04/28/94	4057	VALDEZ A1E ACH	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/28/94	4058	VALDEZ A1E DK	FOUTZ	731	10.00	20.00	1
	04/28/94	4059	BUNCE #2	FOUTZ	432	30.00	30.00	1
	04/28/94	4060	BUNCE #2	FOUTZ	531	30.00	30.00	1
	04/29/94	4061	SANCHEZ G.C. B#1	FOUTZ	933	10.00	15.00	1
	04/29/94	4062	SANCHEZ G.C. C#1	FOUTZ	432	0.00	15.00	
	04/29/94	4063	SANCHEZ G.C. C#1	FOUTZ	531	15.00	15.00	1
	04/29/94	4064	SANCHEZ G.C. B#1	FOUTZ	931	20.00	10.00	1
	04/29/94	4065	SANCHEZ G.C. C#1	FOUTZ (ATENCIO)	24	10.00	10.00	1
	04/29/94	4066	SANCHEZ G.C. B#1	FOUTZ	731	10.00	0.00	1

CLIENT :EL PASO N.G. PAGE 4

JOB #	DATE	T/NO.	LOCATION	CARRIER	TRK #	CONT	FILL	CELL
94022	04/29/94	4067	ANDERSON G.C. A1	FOUTZ (ATENCIO)	24	20.00	20.00	1
	04/29/94	4068	ANDERSON G.C. A1	FOUTZ	531	15.00	30.00	1
	04/29/94	4069	ANDERSON G.C. A1	FOUTZ	933	10.00	15.00	1
	04/29/94	4070	ANDERSON G.C. A1 CH	FOUTZ	432	15.00	30.00	1
	04/29/94	4071	TRUJILLO G.C. A#1	FOUTZ	731	10.00	20.00	1
	04/29/94	4072	TRUJILLO G.C. A#1	FOUTZ	933	10.00	0.00	1
				TOTALS :		2,489.00	2,690.00	

ACORD. CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY) 01/02/97

PRODUCER
Animas Valley Insurance Agency
4010 E. 30th Street
PO Box 5220
Farmington, NM 87499

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Tierra Environmental Inc
PO Box 15250
Farmington, NM 87499

COMPANIES AFFORDING COVERAGE

COMPANY LETTER **A** Agora Snydicate Inc.

COMPANY LETTER **B** Farmers Alliance Mutual Ins. Compani

COMPANY LETTER **C** New Mexico Mutual Casualty Co.

COMPANY LETTER **D**

COMPANY LETTER **E**

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	DAG223137R1	09/13/96	09/13/97	GENERAL AGGREGATE	$1,000,000
	X COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG.	$
	CLAIMS MADE X OCCUR.				PERSONAL & ADV. INJURY	$
	OWNER'S & CONTRACTOR'S PROT.				EACH OCCURRENCE	$1,000,000
	X BI/PD Ded:2,500				FIRE DAMAGE (Any one fire)	$50,000
					MED.EXPENSE (Any one person)	$5,000
B	AUTOMOBILE LIABILITY	BAP015922	01/08/97	01/08/98	COMBINED SINGLE LIMIT	$1,000,000
	ANY AUTO					
	ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	X SCHEDULED AUTOS					
	X HIRED AUTOS				BODILY INJURY (Per accident)	$
	X NON-OWNED AUTOS					
	GARAGE LIABILITY				PROPERTY DAMAGE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	UMBRELLA FORM				AGGREGATE	$
	OTHER THAN UMBRELLA FORM					
C	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	011871102	03/13/96	03/13/97	STATUTORY LIMITS	
					EACH ACCIDENT	$100,000
					DISEASE-POLICY LIMIT	$500,000
					DISEASE-EACH EMPLOYEE	$100,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Workers' Compensation: Coverage A applies to New Mexico benefits.

CERTIFICATE HOLDER

Energy, Minerals, & Natural
Res.Dept.
2040 S Pacheco
Santa Fe, NM 87505

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

WLM

OIL CONSERVATION DIVISION
RECEIVED

'97 JAN 9 AM 8 52

Roger Anderson
OCD

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

November 21, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-845

Mr. Todd D. Nobis
Tierra Environmental
P.O. Drawer 15250
Farmington, New Mexico 87401-5250

Re: Request for approval to recycle soils

Dear Mr. Nobis:

The Oil Conservation Division (OCD) has received your requests dated November 1, 1996 for authorization to recycle remediated soils your facility and for use on the landfarm facility and as backfill for oil and gas projects.

Based on the information provided, the request is hereby approved.

If you have any questions, please do not hesitate to call me at (505) 827-7152

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

xc: Denny Foust - OCD Aztec

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

November 01, 1996

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REQUEST FOR APPROVAL TO RECYCLE SOILS

Dear Mr. Anderson,

Analysis for Total Petroleum Hydrocarbons (TPH) conducted by Envirotech Labs conducted on 10-24-96 shows that approximately 6000 cubic yards of soil received from El Paso Natural Gas Co. during their pit cleaning projects (Tierra job # 94022 and 93043), shows the projects to be remediated to below the OCD requirements of 100 ppm TPH and a headspace using a Model 580-b organic vapor meter showed a reading of "non-detect". A BTEX analysis conducted by Envirotech Labs showed a reading of 1130 ug/kg (1.13 mg/kg) and 3580 ug\kg (3.58 mg\kg). All samples taken were composites. These soils are located in cell four (approx. 4.3 acres) and cell 5 (approx. 1.5 acres) of the Tierra Environmental Crouch Mesa Landfarm Facility in San Juan County.

These particular soils were received on 11-30-93, 05-30-94 and 06-31-94.

Tierra requests permission to recycle the soils for use on the landfarm facility (ie; mix for tank bottoms and sludges) and use as backfill for oil and gas projects.

Thank you for your cooperation. Please call me if you have any questions.

Sincerely,

Todd D. Nobis
Environmental Specialist
Tierra Environmental Company Inc.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074
Sample ID:	Tierra #4	Date Reported:	10-24-96
Laboratory Number:	A699	Date Sampled:	10-18-96
Chain of Custody:	4986	Date Received:	10-23-96
Sample Matrix:	Soil	Date Analyzed:	10-24-96
Preservative:	Cool	Date Extracted:	10-24-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**11.7**
Toluene	**69.5**	**11.1**
Ethylbenzene	**106**	**10.1**
p,m-Xylene	**724**	**14.4**
o-Xylene	**231**	**6.9**
Total BTEX	**1,130**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**99 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Tierra Environmental	Project #:	04074
Sample ID:	Tierra #5	Date Reported:	10-24-96
Laboratory Number:	A700	Date Sampled:	10-18-96
Chain of Custody:	4986	Date Received:	10-23-96
Sample Matrix:	Soil	Date Analyzed:	10-24-96
Preservative:	Cool	Date Extracted:	10-24-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**11.7**
Toluene	**300**	**11.1**
Ethylbenzene	**525**	**10.1**
p,m-Xylene	**2,380**	**14.4**
o-Xylene	**372**	**6.9**
Total BTEX	**3,580**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**98 %**

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074
Sample ID:	Tierra #4	Date Reported:	10-24-96
Laboratory Number:	A699	Date Sampled:	10-18-96
Chain of Custody No:	4986	Date Received:	10-23-96
Sample Matrix:	Soil	Date Extracted:	10-24-96
Preservative:	Cool	Date Analyzed:	10-24-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.5**	**0.2**
Diesel Range (C10 - C28)	**5.4**	**0.1**
Total Petroleum Hydrocarbons	**5.9**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tierra Environmental	Project #:	04074
Sample ID:	Tierra #5	Date Reported:	10-24-96
Laboratory Number:	A700	Date Sampled:	10-18-96
Chain of Custody No:	4986	Date Received:	10-23-96
Sample Matrix:	Soil	Date Extracted:	10-24-96
Preservative:	Cool	Date Analyzed:	10-24-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**3.8**	**0.2**
Diesel Range (C10 - C28)	**0.6**	**0.1**
Total Petroleum Hydrocarbons	**4.4**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

4986

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
Tierra Environmental		
Sampler: (Signature)	Chain of Custody Tape No. 04074	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH 8015 M	BTEX					Remarks
Tierra #4	10-18-96	10:00	A699	Soil	1	✓	✓					Samples orig. logged
Tierra #5	10-18-96	10:00	A700	1	1	✓	✓					on COC 4964 for 4811
												analysis.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
By Phone from E Nabis	10-23-96	11:35	L. Aguilera	10-23-96	11:35
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

san juan repro Form 578-81

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

September 5, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-832

Mr. Todd D. Nobis
Tierra Environmental
P.O. Drawer 15250
Farmington, New Mexico 87401-5250

Re: Request for approval to recycle soils

Dear Mr. Nobis:

The Oil Conservation Division (OCD) has received your requests dated July 9 and July 16, 1996 for authorization to recycle remediated soils your facility and for use on the Mountain Raceways racetrack. This letter confirms the verbal approvals granted for both requests.

If you have any questions, please do not hesitate to call me at (505) 827-7152

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

xc: Denny Foust - OCD Aztec

TIERRA ENVIRONMENTAL COMPANY Inc

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

July 15, 1996

Chris Eustice
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Concrete Holding and Treating Trough
Crouch Mesa Landfarm (NM-01-0010)
San Juan County, New Mexico

Dear Mr. Eustice,

As per your letter dated June 21, 1996, requesting a procedure to inspect for and repair leaks in the concrete holding and treating trough, I submit the following.

1.) All leaks will be sealed with a silicone type sealant (ie: liquid nails).

2.) Following use of the trough, a walk around inspection will be conducted both outside and inside the trough. Any leaks or breeches will be repaired at that time prior to the trough being utilized for another project.

3.) Any and all spillage will be cleaned up immediately after it's occurrence.

If you have any questions, please don't hesitate to contact me at (505) 334-8894.

Sincerely,

Todd D. Nobis
Environmental Specialist
Tierra Environmental Company Inc.

xc: OCD - Aztec office

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

July 10, 1996

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: MINOR MODIFICATION TO TIERRA CROUCH MESA LANDFARM PERMIT:

Dear Mr. Anderson:

Tierra Environmental Company, Inc. has been approached by several of our clients regarding an alternative for storage of material cleaned up on site following a release and emergency response.

Recently Meridian Oil has had three such incidents. It has become their policy to respond to these spills or releases as quickly as possible in order to best minimize impact. Two of the most recent spills occurred after hours. In both of those cases it was impractical to hold the material on site pending OCD approval and or a TCLP analysis as the material in these cases was used compressor oil. Holding the material on site even when space is available is not the best solution either. Usually a bermed area is constructed to hold the material and it can stay on location out of necessity for two to three weeks awaiting analysis and OCD approval. (Usually the analysis is the hold up). The location is not secure from vandalism, unauthorized dumping from other sources that could take advantage of an un secure holding area etc.

Tierra would propose to set aside an area on our landfarm for the purpose of constructing a bermed area that would be lined with no less than a 20 mil liner, segregated from the remaining landfarm. It's purpose would be to receive and hold material in a secure manner until the required analysis or determination by OCD deemed the material acceptable for remediation upon the landfarm.

Tierra would further propose to be able to accept material for storage under the following conditions.

1. The spill or release concerned only oilfield related material that is either exempt by definition or may be exempt by product identification or analysis.

2. That the spill or release was non exempt oilfield material and or the spill or release occurred on a weekend, holiday or after normal business hours.

3. That OCD would be notified verbally by Tierra of the acceptance for secure storage of the material at the beginning of the next regular business day. Notification in writing would follow within twenty-four hours. Such notification would include the identification of the generator , spill location, source, and nature of the material and also whether or not the material was exempt by definition or required product identification or analysis to be considered exempt.

4. Under no circumstances would material requiring analysis be stored upon the landfarm for a period exceeding thirty days. Exempt material accepted would be spread within seventy-two hours following OCD approval weather permitting as is presently required in the existing permit.

5. Any material accepted for temporary secure storage that failed the required analysis and could not be exempted from regulation would be required to be removed by the generator within the thirty day time frame for appropriate disposal according to State and Federal Regulations.

Therefore on behalf of Tierra Environmental Company, Inc., I would respectfully request OCD approval of the proposed modification.

Please contact me if you have any questions or require additional information.

Sincerely,

Phillip C. Nobis
President

xc: D. Foust, Aztec OCD
Landfarm File

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

July 09, 1996

Mr. Chris Eustice, Environmental Geologist
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REQUEST FOR APPROVAL TO RECYCLE SOILS

Dear Mr. Eustice,

Analysis for Total Petroleum Hydrocarbons (TPH) conducted by On-Site Technologies on March 15, 1996 shows that approximately 1761 cubic yards of soil received from El Paso Natural Gas Co. during their pit cleaning project (Tierra job # 94022), shows the project is remediated to below the OCD requirements of 100 ppm TPH and a headspace using a Model 580-b organic vapor meter showed a reading of "non-detect". A BTEX analysis conducted by On-Site Technologies showed a reading of 25.4 ug/kg. All Samples taken were composites. These soils are located in cell six (approx. 3.2 acres) of the Tierra Environmental Crouch Mesa Landfarm Facility in San Juan County.

These particular soils were received on 07-01-94, 08-01-94 and 09-01-94.

Tierra requests permission to recycle the soils for use on the landfarm facility (ie; mix for tank bottoms and sludges) and use as backfill for oil and gas projects.

Thank you for your cooperation. Please call me if you have any questions.

Sincerely,

Todd D. Nobis
Environmental Specialist
Tierra Environmental Company Inc.

Verbal granted
7/18/96 @ 315 pm

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Phil Nobis*	Date:	15-Mar-96
Company:	*Tierra Environmental*	*COC No.:*	*3570*
Address:	*P.O. Box 15250*	*Sample No.*	*10399*
City, State:	*Farmington, NM 87499*	*Job No.*	*2-1000*

Project Name:	***Tierra Landfarm, Crouch Mesa***				
Project Location:	***CELL 6; B-1***				
Sampled by:	PN	Date:	14-Mar-96	Time:	8:46
Analyzed by:	HR	Date:	14-Mar-96		
Type of Sample:	*Soil*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	13.4	ug/kg	0.2	ug/kg
Ethylbenzene	2.3	ug/kg	0.2	ug/kg
m,p-Xylene	7.7	ug/kg	0.2	ug/kg
o-Xylene	2.0	ug/kg	0.2	ug/kg
TOTAL	25.4	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 3/15/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Phil Nobis*	Date:	15-Mar-96
Company:	*Tierra Environmental*	*COC No.:*	*3570*
Address:	*P.O. Box 15250*	*Sample No.*	*10399*
City, State:	*Farmington, NM 87499*	*Job No.*	*2-1000*

Project Name:	***Tierra Landfarm, Crouch Mesa***				
Project Location:	***CELL 6; B-1***				
Sampled by:	PN	Date:	14-Mar-96	Time:	8:46
Analyzed by:	HR	Date:	14-Mar-96		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
10399-3570	*Tierra Landfarm, Crouch Mesa* ***CELL 6; B-1***	<25 *mg/kg*

Quality Assurance Report

Laboratory Identification	***Analyzed Value***	***Acceptable Range***	***Units of Measure***
Laboratory Fortified Blank Soil - QCBS2	<25	<25	*mg/kg*
Laboratory Fortified Spike Soil - QCSS1	890	828 - 1024	*mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by:
Date: 3/15/96

ANAITAS ENVIRONMENTAL LABS

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Diesel Range Organics

Tierra Environmental Company, Inc.

Project ID:	94065 Comp	Report Date:	7/18/96
Sample Matrix:	Soil	Date Sampled:	7/15/96
Preservative:	Cool	Date Received:	7/15/96
Condition:	Intact	Date Extracted:	7/17/96
		Date Analyzed:	7/17/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
94065 Comp	4332	52.3	18.3

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
o - Terphenyl	118%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Chris	From Phil
Co. OCD	Co. Tierra
Dept.	Phone # 334-8894
Fax # 827-7177	Fax # 334-9024

2nd Test As per your Request

8015

OCD

TIERRA ENVIRONMENTAL COMPANY Inc.

420 COUNTY ROAD 3100
AZTEC, NEW MEXICO 87410

P.O. DRAWER 15250
FARMINGTON, NEW MEXICO 87401-5250

PHONE (505) 334-8894 FAX (505)334-9024

July 16, 1996

Chris Eustice
NMOCD
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Recycling of Soils obtained in August 1, 1994 from Sunterra Gathering

Dear Mr. Eustice,

The following is a proposal to recycle soils obtained from Sunterra Gathering "Hancock #11 S-3, T-27N, R-12W, San Juan County New Mexico. These soils were from a gathering line drip blowdown (Light ends). and consist of approximately 218 cubic yards.

Tierra has been approached by Mountain Raceways of Farmington to utilize these soils for application to a racetrack. This particular soil was selected because of the clay content and will prove very beneficial to the operations of the racetrack. Attached are the TPH and BTEX results of the soil.

Mountain Raceways would like to utilize the entire 218 cubic yards.

Tierra respectfully requests approval for this project as the analysis indicate the TPH and BTEX levels are within acceptable limits. The BTEX levels showed none and the TPH showed 343 ppm (mg/kg) using the 418 method. The same sample was then tested using the 8015A method showed 52.3 ppm (mg/kg).

If you should have any questions, please don't hesitate to call me at (505) 334-8894.

Sincerely,

Todd D. Nobis
Tierra Environmental

xc: OCD - Aztec Office

ANAITAS ENVIRONMENTAL LABS

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Diesel Range Organics

Tierra Environmental Company, Inc.

Project ID:	94065 Comp	Report Date:	7/18/96
Sample Matrix:	Soil	Date Sampled:	7/15/96
Preservative:	Cool	Date Received:	7/15/96
Condition:	Intact	Date Extracted:	7/17/96
		Date Analyzed:	7/17/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
94065 Comp	4332	52.3	18.3

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
o - Terphenyl	118%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Review

2nd Test AS per your Request

8015

PCN

QUALITY CONTROL REPORT
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
Diesel Range Organics

Duplicate Analysis

Project ID:	94065 Comp	Report Date:	7/18/96
Sample Matrix:	Soil	Date Sampled:	7/15/96
Preservative:	Cool	Date Received:	7/15/96
Condition:	Intact	Date Extracted:	7/17/96
		Date Analyzed:	7/17/96

Lab ID	Sample Conc. (mg/kg)	Duplicate Conc. (mg/kg)	Percent Difference
4332DUP	52.3	52.2	0.23%

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
o - Terphenyl	103%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Review

QUALITY CONTROL REPORT
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
Diesel Range Organics

Method Blank Analysis

Project ID:	NA	Report Date:	7/18/96
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Extracted:	7/17/96
		Date Analyzed:	7/17/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Method Blank	MB35263	ND	20.0

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
o - Terphenyl	99%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Review

QUALITY CONTROL REPORT
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
Diesel Range Organics

Matrix Spike Analysis

Project ID:	NA	Report Date:	7/18/96
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Extracted:	7/17/96
		Date Analyzed:	7/17/96

Lab ID	Spike Added (mg/kg)	Original Conc. (mg/kg)	Spike Conc. (mg/kg)	Percent Recovery
MBSPK35263	2,140	ND	2,010	94%

ND- Analyte not detected at the stated detection limit.

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

VOLATILE AROMATIC HYDROCARBONS

Tierra Environmental Company, Inc.

Project ID:	NA	Report Date:	07/16/96
Sample ID:	94065 Comp	Date Sampled:	07/15/96
Lab ID:	4332	Date Received:	07/15/96
Sample Matrix:	Soil	Date Extracted:	07/16/96
Preservative:	Cool	Date Analyzed:	07/16/96
Condition:	Intact		

Target Analyte	Concentration (ug/kg)	Detection Limit (ug/kg)
Benzene	ND	93.4
Toluene	ND	93.4
Ethylbenzene	ND	93.4
m,p-Xylenes	ND	187
o-Xylene	ND	93.4

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	81 -117%
Bromofluorobenzene	100	74 -121%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

TOTAL PETROLEUM HYDROCARBONS

EPA Method 418.1

Tierra Environmental Company, Inc.

Project ID:	NA	Report Date:	07/16/96
Sample Matrix:	Soil	Date Sampled:	07/15/96
Preservative:	Cool	Date Received:	07/15/96
Condition:	Intact	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
94065 Comp	4332	343	24.1

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Matrix Spike Analysis

Project ID:	NA	Report Date:	07/16/96
Sample Matrix:	Soil	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Lab ID	Spiked Sample Conc. (mg/kg)	Unspiked Sample Conc. (mg/kg)	Spike Added (mg/kg)	Percent Recovery
MBSPK35262	46.1	ND	50.0	92%

Acceptance Limits: 89 - 113%

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Duplicate Analysis

Project ID:	Tierra SS	Report Date:	07/16/96
Sample ID:	94065 Comp	Date Extracted:	07/16/96
Sample Matrix:	Soil	Date Analyzed:	07/16/96

Lab ID	Duplicate Conc. (mg/kg)	Sample Conc. (mg/kg)	Percent Difference	Acceptance Limit
4332Dup	318	343	8%	< 22

ND - Analyte not detected at the stated detection limit.
NA - Not calculated.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Method Blank Analysis

Project ID:	NA	Report Date:	07/16/96
Sample Matrix:	Soil	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
MB35262	ND	5.00

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Method Blank Analysis

Sample Matrix:	Soil	Report Date:	07/16/96
Lab ID:	MB35262	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Target Analyte	Concentration (ug/kg)	Detection Limit (ug/kg)
Benzene	ND	125.0
Toluene	ND	125.0
Ethylbenzene	ND	125.0
m,p-Xylenes	ND	250.0
o-Xylene	ND	125.0

ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	100	81-117%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July 1992.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS

Duplicate Analysis

Lab ID:	4332	Report Date:	07/16/96
Sample Matrix:	Soil	Date Sampled:	07/15/96
Preservative:	Cool	Date Received:	07/15/96
Condition:	Intact	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Target Analyte	Original Conc. (ug/kg)	Duplicate Conc. (ug/kg)	Acceptance Range (ug/kg)
Benzene	ND	ND	NA
Toluene	ND	ND	NA
Ethylbenzene	ND	ND	NA
m,p-Xylenes	ND	ND	NE
o-Xylene	ND	ND	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	96	81 - 117%
Bromofluorobenzene	98	74 - 121%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS

Matrix Spike Analysis

Lab ID:	MB35262Spk	Report Date:	07/16/96
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Extracted:	07/16/96
		Date Analyzed:	07/16/96

Target Analyte	Spike Added (mg/kg)	Original Conc (mg/kg)	Spiked Sample Conc (mg/kg)	% Recovery	Acceptance Limits (%)
Benzene	200	0.03	188	94%	39-150
Toluene	200	0.05	192	96%	32-160
Ethylbenzene	200	0.00	192	96%	46-148
m,p-Xylenes	400	0.06	384	96%	NE
o-Xylene	200	0.00	191	95%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	115	81 - 117%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 5, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-621

Phil C. Nobis
Tierra Environmental Corporation
PO Drawer 15250
Farmington, New Mexico 87401

Re: Approval of $NaSO_4$ For Bulking Agent
Crouch Mesa Landfarm (NM-01-0010)
San Juan County, New Mexico

Dear Mr. Nobis:

The Oil Conservation Division (OCD) has received Tierra Environmental Corporation's (Tierra) request dated February 20, 1996 to use Sodium Sulfate ($NaSO_4$) as a bulking/stabilization product. The $NaSO_4$ will be mixed with free liquids and/or sludges prior to treatment at the landfarm.

Based upon the information provided Tierra's request is hereby approved under the following conditions:

1. This is a temporary approval that will expire July 1, 1996.

2. The approval is for a five-acre test cell only. Tierra must propose to the OCD-Santa Fe Office for continued use of the method beyond that date.

3. The $NaSO_4$ will be stored on location in a manner that prevents the product from blowing, migrating and/or leaving the confines of the storage area.

4. The $NaSO_4$ must be applied in a manner that inhibits the NaSO4 from becoming airborne and will not runoff in the event of rain.

5. The cell that receives $NaSO_4$ will be documented and records will be kept documenting volumes of the $NaSO_4$ used on a one acre scale.

6. A background sample will be obtained from the designated five-acre test cell and

the analytical results submitted to the OCD Santa Fe Office prior to initiating the test procedures. A five-point composite sample will be analyzed for Na, SO_4 (using EPA approved methods), BTEX, TPH, and heavy metals by EPA Method 6010.

7. The cell that receives $NaSO_4$ will be monitored by sampling 2 to 3 feet below the treatment zone every month. A sample will be taken every acre and analyzed (using EPA approved methods)for Na, SO_4, BTEX, TPH, and heavy metals by EPA Method 6010. The analytical results for every sample will be provided to the OCD Santa Fe and Aztec Offices as soon as the results are available.

Pursuant to OCD Rule 711 this is considered to be a minor modification of the existing Rule 711 permit, therefore, not subject to public notification.

Please be advised that this approval does not relieve Tierra of liability should their operation result in pollution of surface water, groundwater or the environment. In addition, OCD approval does not relieve Tierra of liability for compliance with any other laws and/or regulations.

If you have any questions, please do not hesitate to Chris Eustice at (505) 827-7153.

Sincerely,

Roger C. Anderson, Chief
Environmental Bureau

xc: OCD - Aztec Office

TIERRA ENVIRONMENTAL COMPANY Inc.
P.O. DRAWER 15250
FARMINGTON, NM 87401

February 20, 1996

Chris Eustice, Geologist
Environmental Bureau
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REQUEST TO USE BULKING AGENT FOR MIXING TANK BOTTOMS, SLUDGES AND STICKY MATERIAL AT THE TIERRA CROUCH MESA LANDFARM:

Dear Mr. Eustice:

We have been contacted by All State Trucking. They have offered us a bi-product produced by Kaiser Aluminum Mead Works in Mead, Washington. It appears to have qualities which would seem to fill our needs relative to use as a bulking agent and nutrient additive for tank bottom and sludge processing as well as an additive for sticky soils received at the landfarm. The product is a mixture of sodium sulfate and carbon. It does contain some metal however they do not appear to be at hazardous levels.

I have included an MSDS and full metal's analysis. It doesn't appear to me to contain anything that would be considered hazardous. Because the material is rich in calcium and iron it would appear that it would act in conjunction with our Oxy and Sorb products helping to midigate odor and also assist in accelerating the de-composition of hydrocarbons process.

If you concur, I would like permission to begin to use the material as a bulking agent along with Sorb 1 and remediated backfill in processing tank bottoms, sludges and sticky soil at the landfarm.

In order to avoid any possible cumulative effect, any material mixed with this product would only be treated once and then spread on the landfarm. There would be no additional applications thereafter.

Although the generator of this material considers it a waste product, we would be making beneficial use of that waste, recycling it as an additive in the landfarm remediation process.

Thank you for your consideration in this matter.

Sincerely,

Phillip C. Nobis
President

xc: D. Foust, OCD Aztec

FAX

KAISER ALUMINUM MEAD WORKS
E. 2111 HAWTHORNE ROAD
MEAD, WA 99021
PHONE: 509-468-5493
FAX: 509-467-1680

TO: TIERRA ENVIRONMENTAL COMPANY, INC.
c/o All State Trucking 505-325-7992

DATE: 2/8/96

CC:

FROM: MIKE SAWATZKY

RE: Generator's Profile for Sodium Sulfate Product

NUMBER OF PAGES INCLUDING THIS COVER SHEET = 2

Enclosed please find our waste profile and the supporting analytical information. Dan Doyle indicated you also needed something called a "Statement of Origin" for this but I am not familiar with that document.

If you need additional information you can contact me by voice phone or FAX at the numbers listed above.

Sincerely,

Mike Sawatzky

WASTE MANAGEMENT, INC.

GENERATOR'S WASTE PROFILE SHEET
(to be completed by Generator)

A. WASTE GENERATOR INFORMATION

Name: Kaiser Aluminum & Chemical

Facility Address (site of waste generation): E 2111 Hawthorne Rd.
Mead, WA 99021

Contract: Kris McCleskey Phone (509) 468-5990

B. WASTE STREAM INFORMATION

Name of Waste: Sodium Sulfate Product

Process Generating Waste: SO_2 Removal System - Dry Sodium Bicarbonate Injection

Indicate the physical and chemical description of the waste: See Attached MSDS for chemical description dry powder material

Annual Amounts/Units: 300 Tons or more

Is this waste an excluded waste, as defined by 40 CFR 261.4? ___ Yes X No

If the waste is excluded, what is the excluded classification? ___

If the waste is excluded, have you submitted a Quality Assurance Plan? ___ Yes ___ No

Special Handling Instructions/Additional Information: ___

C. CHEMICAL COMPOSITION

Does the waste contain greater than 50 ppm PCB? ___ Yes X No

Does the waste contain free liquids? ___ Yes X No

Is this waste ignitable?	___ Yes	X No	(40 CFR 261.21)
Is this waste corrosive?	___ Yes	X No	(40 CFR 261.22)
Is this waste reactive?	___ Yes	X No	(40 CFR 261.23)
Is this waste toxic?	___ Yes	X No	(40 CFR 261.24)
Is this waste a listed waste?	___ Yes	X No	(40 CFR 261.30)
			(40 CFR 261.31)
			(40 CFR 261.32)
			(40 CFR 261.33)

Indicate the laboratory analytical results for the sample: X Data ___ Knowledge

D. GENERATOR'S CERTIFICATION

By signing this profile sheet, the Generator certifies:

1. This waste is not a "Hazardous Waste" as defined by USEPA regulations and/or the state of Utah.
2. This waste does not contain regulated radioactive materials or regulated concentrations of Polychlorinated Biphenyls (PCB's) and dioxins.
3. This profile sheet and attachments (if applicable) contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rule.
5. If any changes occur in the character of the waste, the Generator shall notify East Carbon Development Corporation (ECDC) prior to providing the waste to ECDC.

Kris McCleskey
Generator's Signature

3/11/94
Date

Kris McCleskey
Name

Environmental Engineer
Title

Rev. 10/92

KAISER ALUMINUM & CHEMICAL CORPORATION

6177 Sunol Boulevard, Pleasanton, CA 94566-7769

MATERIAL SAFETY DATA SHEET

Company/Plant	Issue Date	Identification Number
Kaiser Aluminum & Chemical Corporation Mead Works East 2111 Hawthorne Rd. Mead, Washington 99021	12/1/93	KDS-63
Trade Name (Common Name or Synonym) KACC Saltcake	Emergency Phone Number (509) 466-3300	
Chemical Name Sodium Sulfate & Carbon	Formula Mixture	DOT Identification Number NA

I. INGREDIENTS

Material or Component

INGREDIENTS	CAS #	% COMPOSITION BY WEIGHT	ACGIH TWA (mg/m³)	OSHA 1910.1000 TWA (mg/m³)	WISHA PEL (mg/m³)
Carbon	7440-44-0	15-25	10.0, as total dust	15.0, as total dust 5.0, as respirable fraction	10.0, as total dust 5.0, as respirable fraction
Sodium Sulfate (salt cake)	7757-82-6	75-85	Not established	Not established	Not established

KEY: TWA = Time Weighted Average
PEL = Permissible Exposure Limit

II. PHYSICAL DATA

Material is at Normal Conditions:	Appearance and Odor
☐ Liquid ☑ Solid ☐ Gas ☐ Other	Gray crystalline granules or powder

Acidity/Alkalinity	Melting Point	Specific Gravity (H₂O=1)	Vapor Pressure (mm Hg at 68°F)
10 - 11	1630 °F	2.5	NA
	Boiling Point NA °F	Solubility in water (% by weight) 17%	

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Hands, Arms and Body
NIOSH/MSHA approved respirator for dust, mist & fumes	Not normally required
Eyes and Face	**Other Clothing and Equipment**
Eye protection in dusty atmospheres	Not normally required

IV. EMERGENCY MEDICAL PROCEDURES

Inhalation: Remove from dust exposure. Get medical attention.

Skin Contact: Remove by thoroughly washing with soap and water. Get medical attention if irritation persists.

Eye Contact: Immediately flush with water for at least 15 minutes. Get medical attention if irritation persists.

Ingestion: Get medical help immediately.

KDS-63

V. HEALTH /SAFETY INFORMATION

Health

INHALATION Breathing excessive concentrations of caustic dust may cause upper respiratory tract irritation.

INGESTION Not likely. However, see Section IV if accidental ingestion occurs.

SKIN Dust on skin may cause skin irritation.

EYES Contact may cause irritation or eye damage. Flush immediately.

Threshold Limit Value: See Section I, INGREDIENTS

Fire and Explosion

Flash Point	Auto Ignition Temperature	Flammable Limits in Air	Extinguishing Media
NA °F ☒ Not Flammable	NA °F	Lower NA % Upper NA %	Dry powder extinguishing agent.

Unusual Fire and Explosion Hazards: Thermal decomposition produces toxic fumes.

Extinguishing Media Not to Be Used:

Reactivity

Stability: ☒ Stable ☐ Unstable

Incompatibility (Materials to Avoid): Aluminum (+heat); strong oxidizing agents (+heat)

Conditions to Avoid: Temperatures at & above 900°C

Hazardous Decomposition Products: SO_x, NA_2O, Oxides of Carbon

VI. ENVIRONMENTAL

Spill or Leak Procedures

Contain spillage & scoop up or vacuum. Avoid dusting. It is recommended that the purchaser establish a spill prevention, control, and countermeasure plan. This plan should include procedures for proper storage as well as cleanup of spills and leaks. The procedures should conform to safe practices and provide for proper recovery or disposal. Depending on the quantity spilled, notification of the National Response Center (800-424-8802) may be required. Refer to EPA, DOT and various state and local regulations for current response information.

Waste Disposal Methods

Federal, state & local disposal laws & regulations will determine the proper waste disposal procedures. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary). Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected. Some waste materials are amenable to recycle/reuse.

Supplier Notification

NA

VII. ADDITIONAL INFORMATION

- Calcined coke dust is electrically conductive. Dust accumulations can cause short circuits.
- Tests on laboratory animals indicate sodium sulfate may produce adverse reproductive effects.

NA=Not Applicable

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

ANACHEM INC.

8 Prestige Circle, Suite 104 • Allen, Texas 75002
214/727-9003 • FAX # 214/727-9886 • 1-800-998-1186

Customer Name: PHOENIX TECHNOLOGY CORP.
Date Received: March 5, 1993
Date Reported: March 17, 1993
Submission #: 9303000067
Project: K-1, K-2

SAMPLES: The sample consisted of 2 containers with sample I.D. shown in the attached data table.

TESTS: The sample as shown in the data table was analyzed for:
* Ag BY ICP FOR SOLID (EPA METH 6010)
* Al BY ICP FOR SOLID (EPA METH 6010)
* As BY ICP FOR SOLID (EPA METH 6010)
* Ba BY ICP FOR SOLID (EPA METH 6010)
* Ca BY ICP FOR SOLID (EPA 6010)
* Cd BY ICP FOR SOLID (EPA 6010)
* Cr BY ICP FOR SOLID (EPA METH 6010)
* Fe BY ICP FOR SOLID (EPA METH 6010)
* Hg BY COLD VAPOR FOR SOLID (EPA Meth 245.5/7471) in all of the sample.
* Pb BY ICP FOR SOLID (EPA METH 6010) in all of the sample.
* Sc BY ICP FOR SOLID (EPA METH 6010) in all of the sample.
* Si BY ICP FOR SOLID (EPA METH 6010) in all of the sample.
* V BY ICP FOR SOLID (EPA METH 6010) in all of the sample.

RESULTS: See attached data table for results.

Distribution Of Reports:
2-PHOENIX TECHNOLOGY CORP.
Attn:DAN DOYLE

LAB NUMBER: 9303000067 lims

Respectfully Submitted,
Anachem,Inc.

C.E. Newton, Ph.D.
Chemist

Report to: PHOENIX TECHNOLOGY CORP. Date Reported: 03/17/93
Submission #: 9303000067
Project: K-1, K-2

Test Name: As BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Silver	<0.4	0.4	mg/kg
K-2	Silver	<0.4	0.4	mg/kg

Test Name: Al BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Aluminum	58.0	2.8	mg/kg
K-2	Aluminum	60.0	2.8	mg/kg

Test Name: As BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Arsenic	<2.7	2.7	mg/kg
K-2	Arsenic	<2.7	2.7	mg/kg

Test Name: Ba BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Barium	4.7	0.1	mg/kg
K-2	Barium	14.0	0.1	mg/kg

Test Name: Ca BY ICP FOR SOLID (EPA 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Calcium	355.00	0.05	mg/kg
K-2	Calcium	640.00	0.05	mg/kg

Test Name: Cd BY ICP FOR SOLID (EPA 6010)

Client Sample #	Analyte	Result	Det.Limit	Units
K-1	Cadmium	0.4	0.2	mg/kg

Report to: PHOENIX TECHNOLOGY CORP. Page 8
Submission #: 9508000067 Date Reported: 08/17/95
Project: K-1, K-2

Test Name: Cd BY ICP FOR SOLID (EPA 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-2	Cadmium	0.7	0.3	mg/kg

Test Name: Cr BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Chromium	1.5	0.4	mg/kg
K-2	Chromium	2.1	0.4	mg/kg

Test Name: Fe BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Iron	136.0	0.4	mg/kg
K-2	Iron	146.0	0.4	mg/kg

Test Name: Hg BY COLD VAPOR FOR SOLID (EPA Meth 245.5/7471)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Mercury (EPA Meth 245.5/7471	<0.01	0.01	mg/kg
K-2	Mercury (EPA Meth 245.5/7471	<0.01	0.01	mg/kg

Test Name: Pb BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Lead	<2.0	2.0	mg/kg
K-2	Lead	<2.0	2.0	mg/kg

Test Name: Se BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Selenium	<3.8	3.8	mg/kg
K-2	Selenium	<3.8	3.8	mg/kg

Report to: PHOENIX TECHNOLOGY CORP.
Submission #: 9803000067
Project: K-1, K-2

Date Reported: 03/17/98

Test Name: SI BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Silicon	380.0	0.8	mg/kg
K-2	Silicon	340.0	0.8	mg/kg

Test Name: V BY ICP FOR SOLID (EPA METH 6010)

Client Sample #	Analyte	Result	Det Limit	Units
K-1	Vanadium	71.0	0.4	mg/kg
K-2	Vanadium	16.0	0.4	mg/kg

Report to: PHOENIX TECHNOLOGY CORP. Project: K-1, K-2
Lab Number: 9308067
Page #6

QUALITY CONTROL DATA

ANALYTE	DATE ANALYZED	STANDARD DEV.	COEFF. OF VARIABILITY %	REC1/%	REC2/%
Mercury	8/2/93	0	0	100	100
Lead	8/11/93	0.02	2.4	82	86
Silver	8/11/93	0.01	1.0	99	101
Cadmium	8/11/93	0.015	2.2	103	108
Chromium	8/11/93	0.025	2.8	88	93
Iron	8/11/93	0.1	2.5	102	98
Arsenic	8/11/93	0.085	8.3	108	101
Selenium	8/11/93	0.079	6.8	98	82
Aluminum	8/11/93	0.585	10.2	85	104
Barium	8/11/93	0.08	2.3	86	90
Vanadium	8/11/93	0	0	100	100

Standard Deviation = (x1-x2)/1.414
Coefficient of Variability % = (S.D./Avg.) X 100
Recovery % = [(spiked-unspiked)/expected] X 100

END

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

February 8, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-616

Phil C. Nobis
Tierra Environmental Corporation
PO Drawer 15250
Farmington, New Mexico 87401

Re: Approval of Concrete Holding and Treating Trough
Crouch Mesa Landfarm (NM-01-0010)
San Juan County, New Mexico

Dear Mr. Nobis:

The Oil Conservation Division (OCD) has received Tierra Environmental Corporation's (Tierra) request dated February 1, 1996 to construct a concrete holding and treating trough at the Tierra Crouch Mesa Landfarm. The area will be utilized for the stabilization and absorption of liquids and sludges received by Tierra for the purpose of land farming.

Based upon the information provided Tierra's request is hereby approved under the following conditions:

1. The containment will be constructed as specified in the above referenced proposal. Any deviation from the proposed design will have to have OCD approval.

2. The trough will be constructed **above** grade and set on a liner for visual leak detection purposes.

3. The containment will be inspected, inside and outside, weekly and records of such inspections will be retained for 5 years from the date recorded and made available to the OCD upon request.

4. The OCD Santa Fe and Aztec Offices will be notified within 24 hours of discovery of a containment leak.

Pursuant to OCD Rule 711 this is considered to be a minor modification of the existing Rule 711 permit, therefore, not subject to public notification.

Please be advised that this approval does not relieve Tierra of liability should their operation result in pollution of surface water, groundwater or the environment. In addition, OCD approval does not relieve Tierra of liability for compliance with any other laws and/or regulations.

If you have any questions, please do not hesitate to call me at (505) 827-7153.

Sincerely,

Chris Eustice
Geologist

xc: OCD - Aztec Office

TIERRA
ENVIRONMENTAL
COMPANY Inc.
P.O. DRAWER 15250
FARMINGTON, NM 87401

February 5, 1996

Roger Anderson, Bureau Chief
New Mexico Oil Conservation Division
Environmental Bureau
P.O. Box 2088
Santa Fe, New Mexico 87504-8022

RE: TIERRA LANDFARM PERMIT PROVISION TO SPREAD ALL MATERIAL RECEIVED WITHIN SEVENTY-TWO HOURS:

Dear Mr. Anderson:

As I had mentioned to you on the phone the other day, it has been out experience that the permit provision requiring us to spread all material received within seventy-two hours, has in some cases not been practical. While I understand completely the necessity for such a rule, I think from a practical standpoint that some flexibility is in order.

Some material brought to the farm, while complying with the rule regarding no free liquids, does contain clay in which is trapped allot of moisture. The stuff is sticky and refuses to be spread. Additionally, material brought in from places like Basin and Sunco Disposal, where they have mixed their sludges with dirt usually is sticky. If we attempt to spread the material it balls up on the tires of our loader or the tracks of a cat and is tracked all over the farm. So much for our rule of not co-mingling soils. If we attempt to have the dump trucks that deliver the soil tie off their dump gates so that they can drive down a row and spread the material in that fashion, the end result is that very little comes out of the box. It just sticks to the tailgate. Another associated problem with the sticky material is that if we are attempting to spread it with our loader it also sticks to the bucket. It becomes difficult to load trucks with clean fill material and spread contaminated soil simultaneously. It would be ridiculous to have to purchase a second frontend loader at $ 65,000.00 just to be able to expedite activity at the landfarm.

Another issue is that when does the seventy-two hour rule come into play? As an example, El Paso had twenty to twenty-five 10 cubic yard dump trucks hauling from various locations to the farm for two weeks straight. The paperwork for El Paso is submitted once per month as if it is one job. It doesn't seem practical to have each load spread as it arrives considering the volume, or within seventy-two hours even. One more situation example is our most recent projects with Gary Williams Energy. Apache Station, Bisti and presently Montezuma Creek all have involved on going hauling and have been in progress for several months.

I have a suggestion for your consideration.

Change the seventy-two hour rule to read; All soil delivered to the landfarm must be spread within seventy-two hours of when each job is complete, when practical. Any material stockpiled upon the farm exceeding the seventy-two hours will require that the subsurface beneath the stockpile be analyzed for TPH and field screened using an organic vapor meter immediately following it's removal. Those analytical results can either be required to be kept at the farm for OCD inspection for a two year period consistent with other permit requirements concerning records or forwarded to the OCD for review. An exception to the additional testing requirement would be soil that has been stockpiled on plastic while awaiting a TCLP analysis. Sometimes that material is sticky also. Even when permission to spread the material is received it may not be suitable to spread and it certainly is not hurting anything sitting on plastic.

Not to admit that we have been in questionable violation of the seventy-two hour rule, but in any case we encounter on the landfarm where anything is questionable, we test, whether or not the testing is required by OCD. Therefore we don't have a problem being required to test additionally just to be safe. If other operators don't want to test, they don't get the break on the seventy-two hour rule.

Let me know what you think.

Sincerely,

Phillip C. Nobis
President

xc: D. Foust, OCD Aztec Office

P.S. Did not get the E-Mail. Correct E-Mail Address PNOBIS702 @ aol. com.

TIERRA ENVIRONMENTAL COMPANY Inc.
P.O. DRAWER 15250
FARMINGTON, NM 87401

February 1, 1996

Post-it™ Fax Note 7671	Date 2-1-96	# of pages ▶ 4
To Chris Eustice	From Phil Nobis	
Co./Dept. NMOCD	Co. Tierra	
Phone #	Phone # 505-334-8884	
Fax # 1-505-827-8177	Fax # 505-334-9024	

Chris E. Eustice, Geologist
Environmental Bureau
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RE: REQUEST FOR MODIFICATION OF TIERRA ENVIRONMENTAL COMPANY, INC. LANDFARM PERMIT ORDER # R-9772:

Dear Mr. Eustice:

On behalf of Tierra Environmental Company, Inc., I submit the following proposal for permit modification. The purpose of the modification is to change the process Tierra presently uses for treating tank bottoms and sludges allowed under a current permit modification.

Tierra would propose to construct an above ground containment area out of re-enforced concrete capable of holding approximately 178 cubic yards of material.

The process employed would be to place the tank bottoms and sludges into the containment area, mixing them with the Tierra Ven-Pel product now being used in our current process, and with clean dirt in order that all free liquids be fully absorbed. The processed solid material would then be mixed, then removed from the containment area and placed in a regular landfarm cell for remediation in accordance with the existing Tierra Landfarm permit. Following the initial placement of the tank bottoms and/or sludges into the containment area the material would be inspect for any free oil. If any free oil is observed, it will be removed prior to mixing. It has been Tierra's experience while using our current process that no fee oil has been identified in any material processed to date.

The containment area would be constructed over a no less than 12 ml plastic liner which would extend from all four sides at least one foot beyond the outer walls. The purpose of the plastic liner (barrier extention) would be so that Tierra personnel could visibly detect leaks. The containment area and barrier extensions would be inspected at least once per week. A written record of that inspection would be made and kept on file for a period of time consistent with other inspections required under current Tierra OCD landfarm permit or for two years whichever is greater. Should any leak be detected, the local OCD office located in Aztec, New Mexico would be notified within 24 hours. All material located at that time within the containment area would be removed and the surface of the containment area thoroughly examined, for the source of the leak. When located, the

section of the containment area that is leaking would be removed. The space under the containment area would be flushed with a 4 % solution of potassium permanganate for the purpose of washing out and oxidizing any remaining contaminants. When fresh permanganate solution was observed running onto the exposed plastic barrier extention, fresh water would then be used to flush out any residual permanganate. Any soil contaminated either by the leak running off the plastic barrier extention(s) or from flushing activities would be excavated and placed into a regular landfarm cell for remediaiton. The area so excavated would be filled and compacted with clean or remediated fill material. The section of the containment area which had been leaking and was removed would be repaired pursuant to original construction specification. Prior to re-commencing operations the containment area would be flooded with water and again checked for leaks. Should no leaks be detected and with prior OCD approval the containment area would be placed back in service.

Accompanying this letter is a construction diagram and specification proposal from our contractor B & K Concrete, Inc., describing the containment area.

If you have any questions or require additional information please call me at 505-334-8894.

Thank you for your consideration.

Sincerely,

Phillip C. Nobis
President

san juan repro Form 288-2

B & K CONCRETE, INC.
P.O. BOX 1256
FARMINGTON, NEW MEXICO 87499
(505) 325-2177
LIC. #15425

Date 1-22-96

PROPOSAL SUBMITTED TO:
Name: TIERRA ENVIRONMENTAL CO. INC.
Street: PHIL NOBIS
City: P.O. BOX DRAWER 15250 State:
FARMINGTON, NM 87401

Job Name
Street
City State
Architect

We hereby submit specifications and estimates for: 156 LEN. FT. FOUNDATION AROUND HOLDING TANK.

24 X 66 8" THICK CONCRETE SLAB WITH NO 5 REBAR 2' ON CENTER.

HOLDING CAPACITY APPROXIMATELY 178 YDS.

SUB TOTAL	
NM TAX NEED TAX EXEMPT CERTIFICATE	
TOTAL	

Note: *This proposal may be withdrawn by us if not accepted within* FIFTEEN *days.*

Payment to be made as follows PAYMENT DUE IN FULL UPON COMPLETION OF WORK DONE.

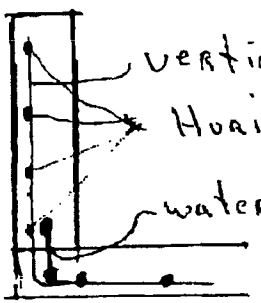
All material is guaranteed to be as outlined. All work to be done in workmanlike manner according to standard practices. Any alterations or deviation from above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control.

Authorized Signature Terry Bees

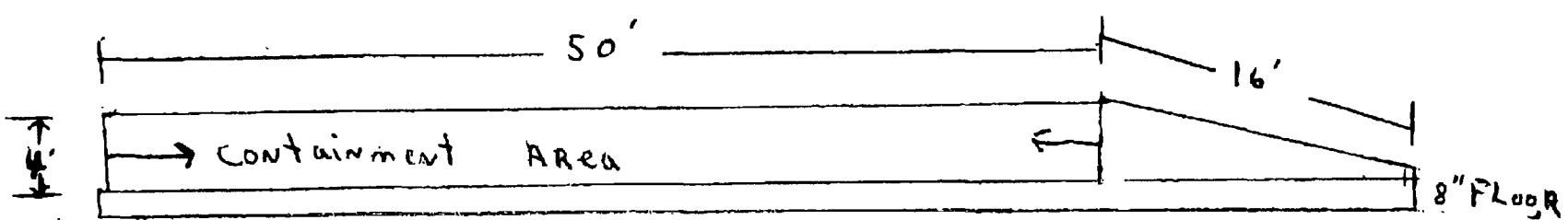
Acceptance of Proposal

The above prices, descriptions and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

ACCEPTED
Date _____ Signature _____



vertical 2 o.c. No 5 Rebar
Horizontals No 4 Rebar
water stop continuous
8" floor No 5 Rebar 2' O.C. 3500 PSI



24 X 68 8" Slab with No 5 Rebar 2' o.c. 3'500 P.S.I.

24 X 50 Holding capacity Approximaty 178 yds