NM1-10-A

C-138

Date: 1993 Tierra Land Farm

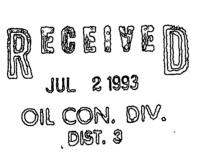
	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxx
1.	RCRA Exempt: Non-Exempt: XX again Separation DIVISION	4. Generator
)	RCRA Exempt: Non-Exempt: XX Verbal Approval Received: Yes CONSERVATION DIVISION	
	W.C. A. L. L.	Bloomfield Refining
2.	Destination '93 JU 1 AM 9 25	5. Name of Originating Site
	Tierra Crouch Mesa Landfarm	Apache Station
3.	Address of Facility Operator	6. Name of Transporter
İ	·	
	909 W. Apache, Farmington, NM	Gary Energy
7.	Location of Material (Street Address or ULSTR)	8. State
	T-25N, R-6W, Sec 23, SE $\frac{1}{4}$, SE $\frac{1}{4}$, Rio Arriba County	New Mexico
0		

9. Check One

- A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
- B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.
- Q C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL: Soil contaminated with crude oil from pipeline transfer facility





Estimated Volume	50	cy Known	Volume (to be enter	ed by the operator at t	the end of the haul):	. <u>.</u>	сү
SIGNATURE	Shilly C.	omplete to the best of		President		DATE _	6/10/93
TYPE OR PRINT NAME _	Phillip C. N	obis			_ TELEPHONE NO	325-092	4
(This space for State Use) APPROVED BY	my 2.	Tour	TITLE	Grolo	9157	DATE <u>(</u>	(1)9193
APPROVED BY	guli	Rule	TITLE _		Aif	DATE	2/1/93

	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxx			
1.	RCRA Exempt: U Non-Exempt: XX	4. Generator			
	Verbal Approval Received: Yes □ No □	Bloomfield Refining			
2.	Destination	5. Name of Originating Site			
	Tierra Crouch Mesa Landfarm	Apache Station			
3.	Address of Facility Operator	6. Name of Transporter			
	909 W. Apache, Farmington, NM	Gary Energy			
7.	Location of Material (Street Address or ULSTR)	8. State			
	T-25N, R-6W, Sec 23, SE $\frac{1}{4}$, SE $\frac{1}{4}$, Rio Arriba County	New Mexico			
9.	. Check One				
	A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.				
•	R B. All requests for approval to accept non-cilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New				
go o	Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove	the material is non-hazardous			
	and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.				

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL: Soil contaminated with crude oil from pipeline transfer facility



Estimated Volume	50 cy Known	n Volume (to be entered	i by the operator at the end of the haul):	30
	Should C. Not.			DATE 6/10/93
TYPE OR PRINT NAME	Phillip C. Nobis		TELEPHONE NO.	325-0924
(This space for State Use) APPROVED BY	eny 2 Jant	1 TITLE	Geologist	DATE 6/29/93
APPROVED BY		TITLE		DATE





State of New Mexico ENVIRONMENT DEPARTMENT

HRMB

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOSA SECRETARY

RON CURRY DEPUTY SECRETARY

June 25, 1993

Mr. Phil Nobis Terra Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

Bloomfield Refining Materials - Soil Sample of May 25, SUBJECT:

1993

Dear Mr. Nobis:

In reference to the captioned subject, and the information, analysis and comments that Bloomfield Refinery, Inter-Mountain Laboratories, Inc., and yourselves have supplied to this Bureau, we have determined that the soil is not hazardous waste.

The Hazardous and Radioactive Materials Bureau is limiting this determination to the soil that was analyzed on 6/3/93 and that it was a representative sample of the cleanup area.

If there are any questions please contact me at (505) 827-4308.

Sincerely,

cc: Roger Anderson OCD

Reading File



2506 West Main Street Farmington, New Mexico 87401 Tel. (505) 326-4737

INTER-MOUNTAIN LABORATORIES, INC.

2506 West Main Street Farmington, New Mexico 87401

Fax: 505/325-4182 Phone: 505/326-4737

PHIL NOBIS



TIERRA ENVIRONMENTAL

FAX: 327 - 1471

This fax contains this cover sheet plus 1 other page.

MESSAGE:



Following is the letter outlining the quality control parameters for Bloomfield Refining Company that we discussed earlier today. • • A copy of the letter was fax'ed to NMED HAZMAT about 30 minutes ago and a hardcopy will go out to them tonight.

There is a copy of the letter for you here or we can drop it by. • Thank you for the opportunity to clarify the situation. Please feel free to call if you have any further questions.

Charles Bållek Laboratory Manager 6/17/93 15:47



2506 West Main Street Farmington, New Mexico 87401 Tel. (505) 326-4737

NMED HAZMAT
525 Camino De Los Marquez Suite #4
Santa Fe, New Mexico 87502 .
attn: Ed Horst, Steve Alexander

17 June, 1993

Sirs:

In response to concerns expressed regarding the results of our analyses for Toxicity Characteristic Leaching Procedure (TCLP) Semivolatile constituents in a sample submitted by Bloomfield Refining Company, please accept the following information.

The sample identified as "Apache" was processed and analyzed following EPA protocol referenced on each report. The Surrogate Recoveries listed in the semivolatile analytical report were compared to the limits listed for "Low/Medium Water" in EPA Method 8270, SW-846, December 1987.

	Percent	Acceptance	
Surrogate	Recovery	<u>Limits</u>	Air
2-Fluorophenol	75	21 - 100	
Phenol-d6	69	10 - 94	
Nitrobenzene-d5	87	35 - 114 🧖	
2-Fluorobiphenyl	116	43 - 116	
2,4,6-Tribromophenol	126	10 - 123	
Terphenyl-d14	88	33 - 141	

The surrogate recoveries indicate an elevated recovery of 2,4,6-Tribromophenol. Whenever a quality control parameter falls outside acceptance limits, a specific chain of events occur. The calculations are reviewed, The preparation of the standards, reagents, and surrogates are reviewed, and The performance of the instrument is investigated. All reviews of calculations, information, and performance indicated optimal conditions for analysis.

If no problem is discovered through the steps listed above, the sample extract may be rerun (usually at a higher dilution) and if the problem still exists the sample will be re-extracted and reanalyzed. Efforts to minimize dilutions are a primary goal to maintain meaningful detection limits. So additional investigation of the sample result is instituted to determine the existence of non-standard conditions or potential interferences.

When the chromatography was inspected, it became apparent that the "Hydrocarbon Envelope" listed as a Tentatively Identified Compound extending between retention times of 16 and 40 minutes, interfered in the quantitation of 2,4,6-Tribromophenol. The presence of the envelope probably played a part in the elevated recovery for 2-Fluorobiphenyl even though it was still within the EPA acceptance range. This matrix effect was most pronounced in surrogates most closely reflecting similar physical characteristics (boiling point, mass, ...) and molecular behavior (mass and number of breakdown products).

If there are further questions regarding the information presented in the report, please feel free to call at your convenience.

Charles Ballek Laboratory Manager Inter-Mountain Laboratories

cc: Phil Nobis - Tierra Environmental



June 9, 1993

Mr. Phil Nobis Tierra Environmental Company, Inc. 909 West Apache Farmington, NM 87401

Dear Mr. Nobis:

Bloomfield Refining Company is planning some housekeeping/ cleanup activities at its Apache Station, crude receiving location in Rio Arriba County, New Mexico. Crude is off-loaded from trucks to tankage and then into a Giant operated pipeline at the location. There is some crude contaminated soil (estimated at a maximum of 50 yards) that will require removal and treatment at your facility.

I have enclosed the analytical results from a sample of the crude contaminated soil. The sample was randomly composited from worst case (most stained) soil on May 25, 1993 and immediately delivered to Inter-Mountain Laboratories, Inc. for analysis. Please contact me if you need any additional information.

Sincerely,

Chris Hawley

Environmental Manager

cc: Ron Weaver

Dave Roderick

Joe Warr

Bloomfield Refinery

Case Narrative

On May 25, 1993, a single soil sample was submitted to Inter-Mountain Laboratories - Farmington for analysis. The sample was received intact and was designated "Apache Station". TCLP analyses for metals, semi-volatiles, and volatiles were performed on the soil sample as per the accompanying chain of custody form.

Volatiles were extracted by zero headspace extraction, according to the final rule of the Toxicity Characteristic Leaching Procedure. Analysis was according to Method 8240, "Gas Chromatography/Mass Spectrometry for Volatile Organics", using a Hewlett-Packard 5890 Gas Chromatograph in tandem with a 5970 Mass Spectrometer. Semi-volatile analysis was performed according to Method 8270, "Gas Chromatography/Mass spectrometry for Semi-volatile Organics", using the same type of instrumentation. Semi-volatile analysis indicated the presence of a hydrocarbon envelope.

TCLP extraction on the sample was performed according to Method 3010. Analyses were performed according to EPA Method 6010, "Inductively Coupled Plasma-Atomic Emission Spectroscopy". Mercury was analyzed according to Method 7470, "Mercury in Liquid Waste (Manual Cold Vapor Technique".

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the sample reported herein are found in <u>Federal Register</u>, 40 CFR 261-302, Part V, EPA Vol55, No. 126, June 29, 1990; <u>Methods for Analysis of Water and Waste Water</u>, EPA-600/4-79-020, USEPA, 1983; and <u>Test Methods for Evaluating Solid Waste</u>, SW-846, USEPA, September, 1986.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely

Dr. Denise A. Bohemier, Organic Lab Supervisor

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL VOLATILE COMPOUNDS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Apache Station

Date Reported: Date Sampled:

06/04/93 05/25/93

Project ID: Laboratory ID:

Condition:

B934740

2699

Date Received: 05/27/93

Sample Matrix:

Soil Cool

Date Extracted TCLP: Date Analyzed:

05/31/93 06/03/93

Preservation:

Intact

	Analytical Result	Detection Limit	Regulatory Limit
Parameter	(mg/L)	(mg/L)	(mg/L)
1,1-Dichloroethene	ND	0.02	0.7
1,2-Dichloroethane	ND	0.02	0.5
2-Butanone	ND	0.1	200
Benzene	ND	0.02	0.5
Carbon Tetrachloride	ND	0.02	0.5
Chlorobenzene	ND	0.02	100
Chloroform	ND	0.02	6
Tetrachloroethene	ND	0.02	0.7
Trichloroethene	ND	0.02	0.5
Vinyl Chloride	ND	0.02	0.2

ND - Compound not detected at stated Detection Limit.

J - Meets identification criteria, below Detection Limit.

B - Compound detected in Method Blank.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Laboratory ID:

Sample Matrix:

Apache

B934740

Soil

Date Reported:

Date Sampled:

06/04/93 05/25/93

Date Analyzed:

06/03/93

Tentative Identification	Retention Time (min)	Concentration	Units
Total Xylene(s)	19.99/20.34	0.04	mg/L

Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	·
1,2-Dichloroethane-d4	103	
Toluene-d8	99	
Bromofluorobenzene	102	

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Third Edition, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS

Client:	BLOOMFIELD	REFINING COMPANY		
Sample ID:	Apache		Date Reported:	06/04/93
Project ID:	Apache Statio	on	Date Sampled:	05/25/93
Laboratory ID:	B934740	2699	Date Received:	05/27/93
Sample Matrix:	Soil		Date Extracted-TCLP:	06/01/93
Preservation:	Cool		Date Analyzed:	06/03/93
Condition:	Intact		Date Extracted-BNA:	06/02/93

	Analytical Result	Detection Limit	Regulatory Limit
Parameter	(mg/L)	(mg/L)	(mg/L)
1,4-Dichlorobenzene	ND	0.08	7.5
Hexachloroethane	ND	0.08	3
Nitrobenzene	ND	0.08	2
Hexachloro-1,3-butadiene	ND	0.08	0.5
2,4,6-Trichlorophenol	ND	0.08	2
2,4,5-Trichlorophenol	ND	0.08	400
2,4-Dinitrotoluene	ND	0.08	0.13
Hexachlorobenzene	ND	0.08	0.13
Pentachlorophenol	ND	0.08	100
o-Cresol	ND	0.08	200 **
m & p-Cresol *	ND	0.08	200 **
Pyridine	ND	0.8	5

ND - Compound not detected at stated Detection Limit

B - Compound detected in Method Blank.

^{* -} Compounds coelute by GCMS.

^{** -} Regulatory Limit of combined Cresols.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID: Laboratory ID: Apache

Sample Matrix:

B934740

Soil

Date Reported: Date Sampled:

06/04/93 05/25/93

Date Analyzed:

06/03/93

	Retention		
Parameter	Time(min.)	Concentration	Units
Hydrocarbon envelope	16-40		
Unknown hydrocarbon	21.96	0.06	mg/L
Unknown hydrocarbon	23.25	0.04	mg/L
Unknown hydrocarbon	24.49	0.04	mg/L
Unknown hydrocarbon	25.66	0.04	mg/L
Unknown hydrocarbon	26.79	0.04	mg/L

Unknown concentrations calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recoveries	%
2-Fluorophenol	75
Phenol-d6	69
Nitrobenzene-d5	87
2-Fluorobiphenyl	116
2,4,6-Tribromophenol	126
Terphenyl-d14	88

References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

1160 Research Drive Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATION

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Apache

Project ID: Lab ID:

Apache Station

Matrix: Preservation: B934740

Date Reported: Date Sampled:

06/03/93 05/25/93

Soil

Cool

Date Received: Date Extracted: Date Analyzed:

05/27/93 05/31/93 06/03/93

 Parameter	Result	PQL	Regulatory Level	Units
<u></u>				, and an
Arsenic	ND	0.2	5.0	mg/L
Barium	ND	5	100.0	mg/L
Cadmium	ND	0.05	1.0	mg/L
Chromium	ND	0.05	5.0	mg/L
Lead	ND	0.2	5.0	mg/L
Mercury	. ND	0.02	0.2	mg/L
Selenium	ND	0.2	1.0	mg/L
Silver	ND	0.05	1.0	mg/L

ND - Not detected at stated Practical Quantitation Limit (PQL).

Reference:

Toxicity Characteristic Leaching Procedure, Final

Rule, Federal Register, 40 CFR 261-302. Part V, EPA Vol 55,

No. 126, June 29, 1990

Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, September, 1986.

Method 6010: Inductively Coupled Plasma-Atomic Emission

Spectroscopy, SW-846, September, 1986.

Method 7470: Mercury in Liquid Waste (Manual Cold-Vapor

Technique), SW-846, September, 1986.

Reviewed_ /

QUALITY ASSURANCE / QUALITY CONTROL

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL VOLATILE COMPOUNDS METHOD BLANK

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Method blank

Date Reported:

06/04/93

Project ID:

Apache Station

Date Sampled:

NA

Laboratory ID:

Q154A

Date Received:

NA

Sample Matrix: Preservation:

Water

Date Extracted TCLP: Date Analyzed:

NA 06/03/93

Condition:

NA NA

Parameter	Analytical Result (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
1,1-Dichloroethene	ND	0.005	0.7
1,2-Dichloroethane	ND	0.005	0.5
2-Butanone	ND .	0.02	200
Benzene	ND	0.005	0.5
Carbon Tetrachloride	ND	0.005	0.5
Chlorobenzene	ND	0.005	100
Chloroform	ND	0.005	6
Tetrachloroethene	ND	0.005	0.7
Trichloroethene	ND	0.005	0.5
Vinyl Chloride	ND	0.005	0.2

ND - Compound not detected at stated Detection Limit.

- J Meets identification criteria, below Detection Limit.
- B Compound detected in Method Blank.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Method blank

Date Reported:

06/04/93

Laboratory ID:

Q154A

Date Sampled:

NA

Sample Matrix:

Water

Date Analyzed:

06/03/93

Tentative
Identification

Retention Time (min)

Concentration

Units

No additional compounds present at detectable levels.

Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	
1,2-Dichloroethane-d4	103	
Toluene-d8	98	
Bromofluorobenzene	102	

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Third Edition, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL VOLATILE COMPOUNDS EXTRACTION BLANK

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Extraction blank

Date Reported: 06/04/93

Project ID:

Apache Station

Extraction fluid-5/31

Date Sampled: NA

Laboratory ID: Sample Matrix:

T154A

Date Received:
Date Extracted TCLP:

NA 05/31/93

Preservation:

NA

Date Analyzed:

06/03/93

Condition:

NA

Parameter	Analytical Result (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
		<u> </u>	
1,1-Dichloroethene	ND	0.005	0.7
1,2-Dichloroethane	ND	0.005	0.5
2-Butanone	ND .	0.02	200
Benzene	ND	0.005	0.5
Carbon Tetrachloride	ND	0.005	0.5
Chlorobenzene	ND	0.005	100
Chloroform	ND	0.005	6
Tetrachloroethene	ND	0.005	0.7
Trichloroethene	ND	0.005	0.5
Vinyl Chloride	ND	0.005	0.2

ND - Compound not detected at stated Detection Limit.

- J Meets identification criteria, below Detection Limit.
- B Compound detected in Method Blank.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Extraction blank

Date Reported:

06/04/93

Laboratory ID:

T154A

Date Sampled:

NA

Sample Matrix:

Extraction fluid-5/31

Date Analyzed:

06/03/93

Tentative Identification

Retention Time (min)

Concentration

Units

No additional compounds present at detectable levels.

Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	
1,2-Dichloroethane-d4	101	
Toluene-d8	99	
Bromofluorobenzene	102	

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Third Edition, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS METHOD BLANK ANALYSIS

Client:	BLOOMFIELD REFINING COMPANY		
Sample ID:	TCLP Method Blank	Date Reported:	06/04/93
Project ID:	Apache Station	Date Sampled:	NA
Laboratory ID:	Blank - 29	Date Received:	NA
Sample Matrix:	Water	Date Extracted-TCLP:	06/01/93
Preservation:	NA	Date Analyzed:	06/03/93
Condition:	NA	Date Extracted-BNA:	06/02/93

	Analytical	Detection	
Parameter	Result	Limit	Units
		•	
1,4-Dichlorobenzene	ND ·	0.02	mg/L
Hexachloroethane	ND	0.02	mg/L
Nitrobenzene	ND	0.02	mg/L
Hexachloro-1,3-butadiene	ND	0.02	mg/L
2,4,6-Trichlorophenol	ND	0.02	mg/L
2,4,5-Trichlorophenol	ND	0.02	mg/L
2,4-Dinitrotoluene	ND	0.02	mg/L
Hexachlorobenzene	ND	0.02	mg/L
Pentachlorophenol	ND	0.02	mg/L
o-Cresol	ND	0.02	mg/L
m & p-Cresol *	ND	0.02	mg/L
Pyridine	ND	0.2	mg/L

ND - Compound not detected at stated Detection Limit.

^{* -} Compounds coelute by GCMS.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS METHOD BLANK ANALYSIS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

TCLP Method Blank

Date Reported:

06/04/93

Laboratory ID:

Blank - 29

Date Sampled:

NA

Sample Matrix:

Water

Date Analyzed:

06/03/93

	Retention		
Parameter	Time(min)	Concentration	Units

No additional compounds found at reportable levels.

Unknown concentration calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recoveries	%
2-Fluorophenol	69
Phenol-d6	42
Nitrobenzene-d5	82
2-Fluorobiphenyl	130
2,4,6-Tribromophenol	120
Ternhanyl-d1/	103

References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS METHOD BLANK ANALYSIS

Client:	BLOOMFIELD REFINING COMPANY		
Sample ID:	TCLP Method Blank	Date Reported:	06/04/93
Project ID:	Apache Station	Date Sampled:	NA
Laboratory ID:	TMB - 153	Date Received:	NA
Sample Matrix:	Water	Date Extracted-TCLP:	NA
Preservation:	NA	Date Analyzed:	06/03/93
Condition:	NA	Date Extracted-BNA:	06/02/93

	Analytical	Detection	
Parameter	Result	Limit	Units
1. 4. D'ablasabasasas	ND	0.02	/I
1,4-Dichlorobenzene	ND	0.02	mg/L
Hexachloroethane	ND	0.02	mg/L
Nitrobenzene	ND	0.02	mg/L
Hexachloro-1,3-butadiene	ND	0.02	mg/L
2,4,6-Trichlorophenol	ND	0.02	mg/L
2,4,5-Trichlorophenol	ND	0.02	mg/L
2,4-Dinitrotoluene	ND	0.02	mg/L
Hexachlorobenzene	ND	0.02	mg/L
Pentachlorophenol	ND	0.02	mg/L
o-Cresol	ND	0.02	mg/L
m & p-Cresol *	ND	0.02	mg/L
Pyridine	ND	0.2	mg/L

ND - Compound not detected at stated Detection Limit.

^{* -} Compounds coelute by GCMS.

1160 Research Drive Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS METHOD BLANK ANALYSIS

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

TCLP Method Blank

Date Reported:

06/04/93

Laboratory ID:

TMB - 153

Date Sampled:

NA NA

Sample Matrix:

Water

Date Analyzed:

06/03/93

	Retention		
Parameter	Time(min)	Concentration	Units

No additional compounds found at reportable levels.

Unknown concentration calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recoveries	%
2-Fluorophenol	63
Phenol-d6	63
Nitrobenzene-d5	75
2-Fluorobiphenyl	82
2,4,6-Tribromophenol	98
Terphenyl-d14	71

References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

1160 Research Drive Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE **METHOD BLANK**

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Method Blank

Project ID: Lab ID:

Apache Station

MB-029

Date Reported:

06/03/93

Date Sampled:

NA

Date Received:

NA

Date Extracted: Date Analyzed:

05/31/93 06/03/93

Parameter	Sample Result	PQL	Regulatory Level	Units
Arsenic	ND	0.2	5.0	mg/L
Barium	ND	5	100.0	mg/L
Cadmium	ND	0.05	1.0	mg/L
Chromium	ND	0.05	5.0	mg/L
Lead	ND	0.2	5.0	mg/L
Selenium	. ND	0.2	1.0	mg/L
Silver	ND	0.05	1.0	mg/L

ND - Not detected at stated Practical Quantitation Limit (PQL).

Reference:

Toxicity Characteristic Leaching Procedure, Final

Rule, Federal Register, 40 CFR 261-302. Part V, EPA Vol 55,

No. 126, June 29, 1990

Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, September, 1986.

Method 6010: Inductively Coupled Plasma-Atomic Emission

Spectroscopy, SW-846, September, 1986.

Method 7470: Mercury in Liquid Waste (Manual Cold-Vapor

Technique), SW-846, September, 1986.

Analyst Ra	ME .

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Reviewed	US	
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TOXICITY CHARACTERISTIC LEACHING PROCEDURE **HSL VOLATILE COMPOUNDS MATRIX SPIKE SUMMARY**

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

TCLP Matrix Spike

Laboratory ID:

X4740

Extraction Fluid-5/31

Sample Matrix: Preservation: Condition:

NA NA

Date Reported:

Date Analyzed:

06/04/93 Date Sampled: Date Received:

Date Extracted TCLP:

05/31/93 06/03/93

NA

NA

Parameter	Spike Added ug/L	Sample Concentration ug/L	Matrix Spike Concentration ug/L	Matrix Spike Recovery (%)
Vinyl Chloride	100	0	91	91
1,1-Dichloroethene	100	0	96	96
1,2-Dichloroethane	100	0 Ö	103	103
	100			101
Chloroform		0	101	
Carbon Tetrachloride	100	0	102	102
Trichloroethene	100	0	100	100
Benzene	100	0	101	101
Tetrachloroethene	100	0	102	102
Chlorobenzene	100	0	104	104
Methyl Ethyl Ketone	100	0	96	96

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Third Edition, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Reviewed

06/02/93

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS BLANK SPIKE SUMMARY

Client: **BLOOMFIELD REFINING COMPANY** Blank Spike 06/04/93 Sample ID: Date Reported: Project ID: Apache Station Date Sampled: NA Laboratory ID: TBS - 153 Date Received: NA **TCLP Extraction Fluid** Date Extracted-TCLP: 06/01/93 Sample Matrix: Preservation: NA Date Analyzed: 06/03/93

Date Extracted-BNA:

Parameter	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery (%)
1,4-Dichlorobenzene	100	0.	44	44
Hexachloroethane	100	0	38	38
Nitrobenzene	100	0	57	57
Hexachlorobutadiene	100	O	43	43
2,4,6-Trichlorophenol	100	0	52	52
2,4,5-Trichlorophenol	100	О	60	60
2,4-Dinitrotoluene	100	О	71	71
Hexachlorobenzene	100	0	59	59
Pentachlorophenol	100	0	70	70
o-Cresol	100	0	57	57
m,p-Cresol	200	0	95	48
Pyridine	100	0	41	41

All values are total nanograms.

NA

Reference:

Condition:

Method 8270, Semivolatile Organics - GC/MS, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, Vol. IB, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst Rev

25

1160 Research Drive Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE MATRIX SPIKE

Client:

BLOOMFIELD REFINING COMPANY

Sample ID: Project ID:

Preservation:

Apache Station

 Date Reported:
 06/03/93

 Date Sampled:
 05/25/93

 Date Received:
 05/27/93

Lab ID: Matrix: B934740 Soil Cool

Date Extracted: Date Analyzed: 05/27/93 05/31/93 06/03/93

Spike SPK1

Parameter	Spike Added	Sample Result	Spiked Result	MS % Recovery	PQL	Units
Arsenic	2.5	ND	2.5	99	0.2	mg/L
Barium	22.0	ND	20	86	5	mg/L
Cadmium	0.5	ND	0.45	90	0.05	mg/L
Chromium	2.0	ND	1.88	94	0.05	mg/L
Lead	2.0	ND	1.8	91	0.2	mg/L
Mercury	0.2	ND	0.20	100	0.02	mg/L
Selenium	2.5	ND	2.6	102	0.2	mg/L
Silver	0.5	ND	0.47	93	0.05	mg/L

ND - Not detected at stated Practical Quantitation Limit (PQL).

Reference:

Toxicity Characteristic Leaching Procedure, Final

Rule, Federal Register, 40 CFR 261-302. Part V, EPA Vol 55,

No. 126, June 29, 1990

Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, September, 1986.

Method 6010: Inductively Coupled Plasma-Atomic Emission

Spectroscopy, SW-846, September, 1986.

Method 7470: Mercury in Liquid Waste (Manual Cold-Vapor

Technique), SW-846, September, 1986.

Analyst Bar

Reviewed W

1160 Research Drive Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE DUPLICATE SUMMARY

Client:

BLOOMFIELD REFINING COMPANY

Sample ID:

Apache

Project ID:

Apache Station

Date Reported: Date Sampled:

06/03/93 05/25/93

Lab ID:

B934740

Date Sampled: Date Received: 05/25/93

Matrix: Preservation:

Soil Cool Date Extracted: Date Analyzed:

05/31/93 06/03/93

Duplicate DUP1

					
Parameter	Sample Result	Duplicate Result	RPD %	PQL	Units
Arsenic	ND	ND	NA	0.2	mg/L
Barium	ND	ND	NA	5	mg/L
Cadmium	ND	ND	NA	0.05	mg/L
Chromium	ND	ND	NA	0.05	mg/L
Lead	ND	ND	NA	0.2	mg/L
Mercury	ND	ND	NA	0.02	mg/L
Selenium	ND	ND	NA	0.2	mg/L
Silver	ND	ND	NA	0.05	mg/L

ND - Not detected at stated Practical Quantitation Limit (PQL).

Reference:

Toxicity Characteristic Leaching Procedure, Final

Rule, Federal Register, 40 CFR 261-302. Part V, EPA Vol 55,

No. 126, June 29, 1990

Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, September, 1986.

Method 6010: Inductively Coupled Plasma-Atomic Emission

Spectroscopy, SW-846, September, 1986.

Method 7470: Mercury in Liquid Waste (Manual Cold-Vapor

Technique), SW-846, September, 1986.

Analyst Bar

Reviewed____



CHAIN OF CUSTODY RECORD

Client/Project Name				ject Location	<u> </u>		7	7					
BLOOMFIELD	REFINI	WG C	o,/	APACITE	STATI	ON)	/		ANAL	YSES.	/ PARAMETER	S	,
Sampler: (Signature)				Custody Tape I	No.		7		/_	1,	7 / _		
Como An	Ny		-			YOU	878	13		7 7	Rem	arks	
Sample No./	Date	Time	Lab Number		Matrix	JUI I	No. of Containers	704.40g	Texp-sem,	Terp-m+			
APACIHE	5/25/93	11:00 A	2699	SOIL	.		3	1	1	1			-
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Relinquished by: (Signature)				Date	Time	Received b	y labora	tory: (S	gnature)		•	Date	Time
						,						}	•
Inter-Mountain Laboratories, Inc.													
1633 Terra Avenue Sheridan, Wyoming 82801	1714 Phillips C Gillette, Wyomi	ng 82716	2506 West Main St Farmington, NM 87	'401 Bozer	echnology Bl	vd. Suite B a 59715	College		TX 77845	Colle	Longmire Drive ege Station, TX 77845	10	733
Telephone (307) 672-8945	Telephone (307	7) 682-8945	Telephone (505) 32	26-4737 Telep	hone (406) 58	36-8450	Telepho	ne (409)	776-8945	Tele	phone (409) 774-4999		

	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxx
1.	RCRA Exempt: 🛱 Non-Exempt: 🛱	4. Generator
	Verbal Approval Received: Yes □ No □	Steere Tank Lines
2.	Destination Tierra Environmental Company, Inc.	5. Name of Originating Site
	Crouch Mesa, Farmington, NM	Antonito, Colorado Conejos County
3.	Address of Facility Operator	6. Name of Transporter
	909 West Apache, Farmington, NM 87401	Dawn Trucking Company
7.	Location of Material (Street Address or ULSTR)	8. State
	Tierra Environmental Company - Landfarm - Farmington	New Mexico
9.	Check One	
	All requests for approval to accept cilfield exempt wastes will be accompanied by a certification of waste from the (Generator; one certificate per job.
	. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status. Mexico Environment Department or other appropriate government agency; two certificates per job.	
17 c	 All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to provand the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved. 	re the material is non-hazardous

All transporters must certify the wastes delivered are only those consigned for transport.

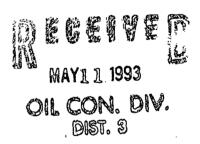
BRIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contaminated with approximately 800 gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of Farmington, NM., will be hauling approximately 16+ loads of contaminated soil from the site in Antonito, Conejos County, Colorado to the Tierra Environmental Company landfarm located on Crouch Mesa San Juan County, New Mexico.

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OIL CON. DIV.



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Estimated Volume 1000 cv	Known Volume (to be entered by the operator at the end of the ha	aull:cv
SIGNATURE Consultation above is true and complete to	THRE _ Environmental Specialis	st DATE 5/10/93
TYPE OR PRINT NAME Ronald M. Castleb	erryTELEPHON	E NO. 325-0924
(This space for State Use) APPROVED BY Down 3: 70	out TITLE Geologist	DATE 5/11/93
APPROVED BY Jogel Land	Pour TITLE EB Chief	DATE 3/17/93

	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.	RCRA Exempt: 四 Non-Exempt: 四	4. Generator
	Verbal Approval Received: Yes □ No □	Steere Tank Lines
2.	Destination Tierra Environmental Company, Inc.	5. Name of Originating Site
	crouch mesa, Farmington, NM	Antonito, Colorado Conejos County
3.	of county operator	6. Name of Transporter
	909 West Apache, Farmington, NM 87401	Dawn Trucking Company
7.	Location of Material (Street Address or ULSTR)	8. State
	Tierra Environmental Company - Landfarm - Farmington	New Mexico
9.	Check One	
	All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of wastel from the	Generator; one certificate per job.

B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.

C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contaminated with approximately 800 gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of Farmington, NM., will be hauling approximately 16+ loads of contaminated soil from the site in Antonito, Conejos County, Colorado to the Tierra Environmental Company landfarm located on Crouch Mesa San Juan County, New Mexico.



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	L000 cy	Known Volume (to be en	tered by the operator at	the end of the haul):	716	су
SIGNATURE 1000	ation above is true and complete to	TUTLE En		Specialist	DATE 5/1	0/93
TYPE OR PRINT NAME	Ronald M. Castlebe	erry		_ TELEPHONE NO.	325-0924	 •
(This space for State Use) APPROVED BY	my g. Fe	oent TITLE	<u>G</u> e01	log ist	DATE	1/1/93
APPROVED BY		TITLE _			DATE	<u> </u>



May 10, 1993

Tierra Environmental Corporation 909 West Apache Farmington, NM 87401

Re: Steere Tank Lines, Antonito Colorado Spill of JP4

Gentlemen,

On April 26, 1993, a Steere Tank Lines truck overturned on Colorado Highway 17, approximately 16 miles west of Antonito Colorado. The accident resulted in approximately 800 gals of JP4 jet fuel being spilled onto a turn-out on the north side of the highway. The fuel was spilled onto Colorado State Highway frontage adjacent to National Forest lands.

On Site Technologies LTD was contracted by Steere trucking to provide clean-up services. Under the supervision of Robert Griffee, the contaminated soil in the turn-out was excavated and temporarily stock piled on a plastic liner at the site. Site Reclamation Services Inc. provided the excavation equipment.

As of the date of this letter, approximately 1,000 yards of contaminated soil is in the stock pile at the site. Site Reclamation Services will organize trucking operations as soon as all State and Federal Agencies approve of the removal and the proposed land farming of the soils.

If additional detail is required or if you need more information, please call.

Sincerely,

Robert R. Griffee General Manager,

On Site Technologies LTD

STATE OF CO

COLORADO DEPARTMENT OF HEALTH

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Denver, Colorado 80222-1530 4210 E. 11th Avenue Phone (303) 692-2000

Laboratory Building Denver, Colorado 80220-3716 (303) 691-4700

May 10, 1993



Roy Romer

Patricia A. Nolan, MD, MPH Executive Director

Mr. Richard Chaney Tierra Environmental Corporation 909 W. Apache Farmington, NM 87401

Disposal of Jet Fuel Contaminated Soil from Conejos County, Re: Colorado.

The Colorado Department of Health has received TCLP analytical results from Onsite Technologies. These results are reported to be taken of soil removed due to a jet fuel spill that occurred on April 26, 1993 near Antonito, Colorado. Sample collection by Onsite Technologies was not observed by representatives of the Colorado Department Health.

provided material show that the analyses characteristic hazardous waste, and it is not a listed hazardous Therefore, based upon the information provided, the material appears to meet the criteria for a non-hazardous solid waste.

If you have any questions, please contact me at (303) 692-3022.

Sincerely,

Steven H. Gunderson, Director Emergency Management Unit

SHG: jj

emo 76 7 1	# of pages > /
From	
Co/	runderson
Phone #2	3 1 GO ST NEARLY
Fax# 3/\2	262-1010
	From



Facsimile Cover Sheet

To: Phil Nobis

Company: Tierra Environmental

Phone: 325-0924

Fax: 321-1471

From: Bill Vorkink

ON SITE TECHNOLOGIES LTD.

Phone: 1- 505- 325- 5667

Fax: 1-505-325-6256

Date: 05 07 93

Pages including this

cover page: 22

Comments

	The	Same	was	faxed	to_	Janet	Jones	in	Colorado.
We	will	await	- her	resoc	onse.				
				Thank	SI				
									
				 ;					

Janet Jones Emergency Response Fax (303)782-4969

This is the TCLP results from the soil removed due to the jet fuel spill near Antonito, Colorado. We need to get this soil declared 'non-hazardous waste', if possible so we can transport it to a land farm (Tierra) in Farmington, New Mexico for remediation.

Thank you.

Bill Vorkink

On Site Technologies Ltd.

Bill Vorking.

RESULTS LABORATORY T E **S** T \$ 05/06/93

JOB NUMBER: 931041 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT 1.D....

DATE SAMPLED....: 04/28/93
TIME SAMPLED....: 08:45
WORK DESCRIPTION...: 0149 COMPOSITE

PRELIMINARY REPORT

LABORATORY I.D...: 931041-0001

DATE RECEIVED...: 04/29/93 TIME RECEIVED...: 09:50

REMARKS..... SAMPLED BY: B.V./G.L.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
TCLP Semivolatiles	N/A	1		EPA SW-846 8270	N/A	N/A
TCLP Volatiles		+10		EPA SW-846 8260	05/05/93	влн
Benzene	<50	50	ug/L	EPA SW-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260		
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260	į	
Chloroform	<50	50	Ug/L	EPA SW-846 8260	· ·	
2-Butenone	<100	100	ug/L	EPA SW-846 8260		
Trichloroethene	<50	50	ug/L	EPA SW-846 8260		
Vinyl chloride	<50	50	ug/L	EPA SU-846 8260	l	
1,2-Dichloroethane	<50	50	lug/L	EPA SW-846 8260	ĺ	
Tetrachloroethena	<50	50	ug/L	EPA SW-846 8260	ł	
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	N/A			EPA SW-846 3520	N/A	A/K
Glass Jar Extraction for Metals	Completed			EPA SW-846 1311	05/03/93	SEB
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	05/03/93	SEB
Arsenic (As), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Barium (Ba), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Cadmium (Cd), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Chromium (Cr), extractable TCLP	H/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Lead (Pb), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Selenium (Se), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Silver (Ag), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Mercury (Hg), extractable, TCLP	N/A	0.002	mg/L	EPA SW-846 7470	N/A	N/A
Metals Digest on Extracted Sample	N/A			EPA SW-846 3010	N/A	H/A
Zero Headspace Extraction-Volatile	Completed			EPA SW-846 1311	04/29/93	SEB
•						
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673



CORE LABORATORIES

CORE LABORATORIES ANALYTICAL REPORT

> Job Number: 930934 Prepared For:

ONSITE TECHNOLOGIES LIMITED DAVE COX 657 W. MAPLE FARMINGTON, MM 87401

Date: 05/05/93

5-/6/93 Date:

Name: Chip Meador

CORE LABORATORIES 1733 NORTH PADRE ISLAND DRIVE

CORPUS CHRISTI, TX 78408

Title: Regional Manager



	FINAL REPORT 05	DISTRIBUTION /05/93	•	
108 NUMBER: 930934				
OMPANY NAME	COMPANY MAILING ADDRESS	COMPANY CITY	STATE COMPANY 21F	CODE
CHRITED COX	657 W. MAPLE	FARMINGTON	NM 87401	and the second seco
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By administrative process from a spirit or based upon the supplied applied by the steen of the authorization of the steen


LABORATORY

TESTS 05/05/93

RESULTS

JOB NUMBER: 930934 CUSTOMER: OMSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

CLIENT I.D.....

DATE SAMPLED.....: 04/15/93

TIME SAMPLED 15:00

WORK DESCRIPTION ...: 0068 5PT COMPOSITE

LABORATORY 1.D...: 930934-0001 DATE RECEIVED: 04/16/93

TIME RECEIVED: 11:30

REMARKS..... SAMPLED BY: T.W.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
TCLP Semivolatics		*1		EPA SW-846 8270	05/03/93	GEF
1,4-Dichlorobenzene	<10	10	ug/L	EPA SW-846 8270		
2,4-Dinitrotoluene	<10	10	ug/L	EPA SW-846 8270	ì	
Hexachlorobenzene	<10	10	ug/L	EPA SW-846 8270	}	
Hexachlorobutadiene	<10	10	ug/L	EPA SW-846 8270	1	
Hexachloroethane	<10	10	ug/L	EPA SW-846 8270		
Nitrobenzene	<10	10	ug/L	EPA SW-846 8270	}	
Pentachlorophenol	<50	50	ug/L	EPA SU-846 8270		
2,4,5-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270	1	
2,4,6-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270		
Pyridine	<10	10	ug/L	EPA SW-846 8270		
Cresols (Total)	<3 0	30	ug/L	EPA SW-846 8270		
TCLP Volatiles		*10		EPA SW-846 8260	04/21/93	BJH
Benzene	<50	50	ug/L	EPA SW-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260		
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260		
Chloroform	<50	50	ug/L	EPA SW-846 8260	Į.	
2-Butanone	<100	100	ug/L	EPA SW-846 8260	1	
Trichloroethene	<50	-50	ug/L	EPA SN-846 8260	1	
Vinyl chloride	<50	50	ug/L	EPA SW-846 8260		
1,2-Dichloroethane	<50	50	ug/L	EPA SW-846 8260		
Tetrachloroethene	<50	50	ug/L	EPA 5W-846 8260		
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 3510	04/28/93	DEH
Glass Jar Extraction for Metals	Completed			EPA SW-846 1311	04/22/93	SEB
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	04/22/93	SEB
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JEM
Barium (Ba), extractable TCLP	0.58	0.05	mg/L	EPA SW-846 6010	04/27/93	JEM
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JEM
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EFA SW-846 6010	04/27/93	1EM
Lead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JEM
Sclenium (Sc), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JEK

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, 1X 78408 (512) 289-2673

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TESTS RESULTS LABORATORY

05/05/93

108 NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LINITED

ATTN: DAVE COX

CLIENT I.D....

DATE SAMPLED..... 04/15/93

TIME SAMPLED.....: 15:00
WORK DESCRIPTION...: 0068 SPT COMPOSITE

LABORATORY I.D...: 930934-0001 DATE RECEIVED...: 04/16/93

TIME RECEIVED...: 11:30 REMARKS..... SAMPLED BY: T.W.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TEC
Silver (Ag), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JE
Flammability Potential Screening	Negative		+ 01	ASTM D4982-89	04/16/93	RAI
Cyanide, Reactive (CN)	<5	5	nig/kg	EPA SW-846 7.3.3.2	04/17/93	СН
Corrosivity by pH	6.87	0.10	pH units	EPA SW-846 9040	04/22/93	EB
Sulfide, Reactive	<10	10	mg/kg	EPA SW-846 7.3.4.2	04/27/93	СН
Morcury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	04/27/93	JJ
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	04/23/93	CH
Zero Heedspace Extraction-Volatile	Completed			EPA SW-846 1311	04/19/93	\$E
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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			4 U K	LITY	05/05/93	" -	PORT			· ·
OB NUMBER:	930934	CUSTOME	R: ONSITE	LECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANA	LYSIS		DUPL	ICATES	REFERENC	E STANDARDS		MATRIX SPIKE	5
HALYSIS TYPE	AMALYSIS SUR-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER: F REPORTING L		Potential Scr UNITS:+ or		DATE/TIME A METHOU REFE					QC BATCH N TE	UMBER:93863 Chnician:ra
OUPLICATE OUPLICATE	MD MD	930917-3 930934-1	Positive Negative	Positive Negative	0					
	orcostvity MIT/OF: 0	у рн 10 UNITS:рн 0	nīts	DATE/TIME A METHOD REFE	NALYZED:04/2 RENCE SEPA	2/93 11;00 su×846 9040				LIMBER:93887 CHN1CIAN:ES
STANDARD DUPLICATE	ICV MD	281.10.20 930934-1	6.97 6.87	7.34	7	7.00	100			
PARAMETER:C REPORTING L	yanide, Ree IKIT/DF: 5	ctive (CN) UNITS:mg/k	9	DATE/TIME A METHOD REFE	NALYZED:04/1 RENCE :EPA	7/93 14:00 94-846 7.3.3	22			UMBER:93901 CHNICIAN:CH
BLANK STANDARD SPIKE DUPLICATE	MB LCS PDS MD	DI H20 281 930865-1 930865-1	<5 96.9 54.1 <5	<5	NC	92.1	105	o	45.8	118
		, extractable, DO2 UNITS:mg/L				7/93 14:26 5W-846 7470	, , , , , , , , , , , , , , , , , , ,		OC BATCH A	IUMBER:9391 CHNICIAN:J.
BLANK STANDARD SPIKE DUPLICATE	MB RS MS MD	D1 H20 WP1085 930888-1 930888-1	<0.002 0.019 0.050 <0.002	<0.002	NC	0.020	95	<0.002	0.050	100
		, extractable 05 UNITS:mg/I		DATE/TIME A	NALYZED:04/7 RENCE EPA	27/93 15:46 5W-846 6010				IUMBER:9391. CHNICIAN:JI
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB ICV CCV MS MS PDD	3010 QC19N 86076 930894-001 930939-001 930894-001 930934-001	<0.05 1.00 5.11 0.52 0.49 <0.05 <0.05	<0.05 <0.05	NC NC	1.00 5.00	100 102	<0.05 <0.05	0.50 0.50	104 98
		extractable:		DATE/TIME / METHOD REFE	NALYZED:04/	27/93 15:46 SW-846 6010				iumber: 9391 (Chnic) An: J
BLANK STANDARD STANDARD SPIKE SPIKE SPIKE DUPLICATE	MB ICV CCV MS PDS PDS PDD	3010 QC-7 B6078 930894-001 930939-001 930970-001	<0.05 1.00 5.14 0.50 1.85 2.75 0.05	0	0.05	1.00 5.00	100	0.05 <0.05 <0.05	0.50 2.00 4.00	90 92 69

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, 1X 78408 (512) 289-2673

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	930934	Chiletone	D. Abette	TECHNOLOGIES	LIMITED		ATTN: DAVE	AND THE RESERVE TO THE PARTY OF		at that the month of the control the estimate of the estimate. The second of the estimate of t
de la estada del estada de la estada del estada del estada del estada de la estada del	Million behavior and services Million behavior and services	LYSIS	NI UNGLIE	1	CATES	REFEREN	CE STANDARDS	etys free kilone fact bode de filonog de di George (1000 <u>198</u> 0 1980 1980 1980 1980 1980 1980 1980 198	MATRIX SPIKE	
ANALYSIS	ANALYSIS	ANALYSIS	ANALYZED	DUPLICATE	RPD or	TRUE	PERCENT	ORIGINAL	SPIKE	PERCENT
TYPE	SUB-TYPE	1.0.	VALUE (A)	VALUE (B)	(A-B)	VALUE	RECOVERY	VALUE	ADDED	RECOVERY
PARAMETER:5 REPORTING L	ilver (Ag), IMIT/OF: 0.0	extractable T 5 UNITS:mg/L	CLP	IA AMITYATAD IATAN DOKTAM	NALYZED:04/2 RENCE :EPA	7/93 15:46 SW-846 6010			and the first of the second of	NUMBER: 93914 ECHN] CIAN: JE
DUPLICATE	PDD	930934-001	<0.05	<0.05	HC					
PARAMETER:8 REPORTING L	erium (Be). IMIT/DF: 0.0	extractable T 5 UNITS:mg/L	CLP	DATE/TIME AI METHOD REFEI	gaga ya marka a dinin dishiri a dininin d	and the second contract of the second contrac	化基础设计 医皮肤性 化氯化二甲基酚 化氯化氯化二甲基甲二甲基甲二甲基甲二甲基甲二甲基甲二甲基甲二甲基甲二甲基甲二甲基甲二甲基			NUMBER:93914 ECHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB ICV CCV MS MS PDD	3010 0C-7 86078 930894-001 930939-001 930894-001 930934-001	<0.05 1.04 5.37 0.51 1.10 <0.05 0.58	<0.05 0.58	NC 0	1.00 5.00	104 107	<0.05 0.58	0.50 0.50	102 104
PARAMETER CC REPORTING L	admium (Cd), IMIT/DF: 0.0	extractable 5 UNITS:mg/L	TGLP	DATE/TIME AL METHOD REFE	te a electrica de la compansa de la	ata at tigat ta ata at tat tat tatua at tabu at tatua.	na kanggapa menanan dan melipidah bermelah sebiah bilang	100000000000000000000000000000000000000	and the second second second second second second	NUMBER: 93914 ECHNICIAN: JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB ICV CCV MS MS PDD PDD	3010 9C19N 86078 930894-001 930939-001 930894-001 930934-001	<0.05 1.04 5.13 0.52 0.48 <0.05 <0.05	<0.05 <0.05	NC NC	1.00 5.00	104 103	<0.05 <0.05	0.50 0.50	104 96
PARAMETER:C REPORTING L	nromium (Cr) INIT/DF: 0.0	, extractable 5 UNITS:mg/L	TCLP	DATE/TIME A	NALYZED:04/2 RENCE :EPA	7/93 15:46 SW-846 6010			QC BATCH }	IUMBER:93914 ECHNICIAN: JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB TCV CCV MS MS PDD PDD	3010 qc19N B6078 930894-001 930939-001 930894-001 930934-001	<0.05 1/05 5/.28 0.50 0.48 <0.05 <0.05	<0.05 <0.05	NC NC	1.00 5.00	105 106	<0.05 <0.05	0.50 0.50	100 96
PARAMETER:L	ead (Pb), ex IMIT/OF: 0.0	tractable TCL 5 UNITSYmg/L	P	DATE/TIME AI						NUMBER:93914 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE SPIKE DUPLICATE DUPLICATE	MB ICV CCV MS MS PDS PDD	3010 0C19N 86078 930894-001 930939-001 930970-001 930894-001 930934-001	<0.05 1.02 5.15 0.59 0.46 3.12 0.11 <0.05	0.10	0.01 NC	1.00	102 103	0.11 <0.05 0.29	0.50 0.50 4.00	. 96 92 71

PAGE:5

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(512) 289-2673



OB NUMBER:	930934	CUSTOME	R: ONGITE T	ECKNOLOGIES	LIMITED		ATTN: DAV	COX		
	ANAL	YSIS		DUPL	CATES	REFERENC	E STANDARDS		MATRIX SPIKE	s
NALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS 1.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER: L REPORTING L	ead (Pb), ext	tractoble TCL UNITS:mg/L	P	DATE/TIME AI NETHOO REFE	NALYZED:04/7 RENCE :EPA	7/93 15:46 SW-846 6010			QC BATCH A	UMBER: 93914 CHNICIAN: JE
PARAMETÉR:S REPORTING L	 etenium (Sa) MIT/DF: 0.0	, extractable 5 UNITS:mg/U		DATE/TIME A METHOD REFE	NALYZED:04/A RENCE : :EPA	7/93 15:46 5W:846 6010			QC BATCH TI	ILMBER:93914 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE SPIKE DUPLICATE OUPLICATE	MB 1CV CCV MS MS PDS PDD	3010 QC19N B6078 930894-001 930939-001 930970-001 930894-001 930934-001	<0.05 1.05 5.20 0.51 0.53 6.11 <0.05 <0.05	<0.05 <0.05	NC NC	1.00 5.00	105 104	<0.05 <0.05 0.56	0.50 0.50 4.00	102 106 139
PARAMETER:	ulfide, Reac	_1		DATE/TIME A	NALYZED:04/	1 27/93 20:30 SW-846 7.3.	4.2		dc Raich	NUMBER: 93924 ECHN (C1AN : CH
BLANK STANDARD SPIKE DUPLICATE	M8 LCS PDS MD	DI H20 281,11,10 930950-2 930950-2	<10 973 242 <10	<10	NC	1000	97	0	300	81

CORPUS CHRISTI, IX 78408 (512) 289-2673

1733 NORTH PADRE ISLAND DRIVE

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QUALITY ASSURANCE REPORT

05/05/93

JOB NUMBER: 930934 DUSTOMER: OMSITE TECHNOLOGIES LIMITED ATTN: DAVE DOX

TCLP Volatiles

DATE ANALYZED: 04/21/93 TIME ANALYZED: 14:05 METHOD: EPA SW-846 8260

QC NUMBER:938822

- Control - Cont		BLAN	K 2			entropy of a control of the control
TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASU
Vi n yl chloride	МВ	04/19/93	1	<5	5	ug/l
1,1-Dichloroethene	MB MB	04/06/9 3 04/19/9 3	1	<5 <5	5 5	ug/l ug/l
2-Butenone	MB MB	04/06/9 3 04/19/9 3	1	<5 <10	5 10	ug/l ug/l
Chloroform	MB MB	04/06/ 93 04/19/ 93	1 1	<10 <5	10	ug/l ug/l
Carbon Tetrachloride	MB MB	04/06/9 3 04/19/9 3	1	<5 <5	5 5	ug/l ug/l
1,2-Dichloroethane	MB MB	04/06/93 04/19/93	1 1	<5 <5	5 5	ug/l ug/l
Benzene	MB MB	04/06/ 93 04/19/ 93	.1	<5 <5	5	ug/l ug/l
Trichloroethene	MB MB	04/06/93 04/19/93	1	<\$ <5	5	ug/l ug/l
Tetrachloroethene	MB MB	04/06/93 04/19/93	1	<i>হ</i> হ হ হ হ হ হ হ হ হ হ হ হ হ হ হ হ হ হ	5 5	ug/l ug/l
Chlorobenzene	MB MB	04/06/9 3 04/19/9 3	1	<5 <5	5 5	ug/l ug/l
•	МВ	04/06/93	1	<5	5	ug/l
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673



ASSURANCE QUALITY REPORT

05/05/93

CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX JOB NUMBER: 930934

TCLP Volatiles

DATE ANALYZED: 04/21/93 TIME ANALYZED: 14:05 METHOD: EPA SH-846 8260

QC NUMBER:938822

ST Scription	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION	UNITS OF MEASURE
bromofluoromethane	RS	8285.3.19	1	51	50	102	5	ug/l
luene d-8	RS	B285.3.19	l i	54	50	108	5	ug/l
Bromofluorobenzene	RS	6285.3.19	1 i	53	50	106	5	ug/l
nyl chloride	RS	B285.3.19	! ;	104	100	108	5	ug/l
1-Dichloroethene	RS	B285.3.19	l i	90	100	90	5	ug/l
Butanone	RS	8285.3.19	1	133			10	ug/l
loroform	RS	B285.3.19	1 1	109	100	133	5	ug/l
arbon Tetrachloride	RS		ì	71	•	109	5	ug/t lug/t
2-Dichloroethane		B285.3.19	1 1	113	100	71		
enzene	RS	B285.3.19		i .	100	113	5	ug/l
richloroethene	RS	B285.3.19	1 1	94	100	94	5	ug/l
trachloroethene	RS	8285.3.19	1 1	84	100	84	5	ug/l
	RS	B285.3.19	1	80	100	80	5	ug/l
lorobenzene	RS	8285.3.19	1	98	100	98	5	ug/l
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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ASSURANCE QUALITY REPORT

05/05/93

JOB NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LINITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 04/21/93 TIME ANALYZED: 14:05 METHOD: EPA SW-846 8260

QC NUMBER:938822

TEST	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	ORIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
DESCRIPTION	SUB-TYPE	1. D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY	LIMITS	MEASURE
Dibromofluoromethane	MB	930934-00	1	560	0	500	112	5	ug/l
	MS	930934-1	1	460	0	500	92	5	ug/l
	MS	930918-1	1	450	0	500	90	5	ug/l
	MS	930936-1	1	520	0	500	104	5	ug/l
	MB	930762-00	1	450	0	500	90	5	ug/l
	MS	930762-4	1 1	500	0	500	100	5	ug/l
	MS	930762-5	1	460	0	500	92	5	ug/l
Toluene d-8	(MB	930934-00	1	460	0	500	92	5	ug/l
	MS	930934-1	1	460	0	500	92	5	ug/l
	MS	930918-1	1	480	0	500	96	5	ug/l
	MS	930936-1	1	530	0	500	106	5	ug/l
	MS	930762-00	1	500	0	500	100	5	ug/l
	MS	930762-4	1	430	0	500	86	5	ug/l
	MS	930762-5	1	500	0	500	100	5	ug/l
-Bromofluorobenzene	MB	930934-00	1	510	Q	500	102	5	ug/l
	MS	- 930934-1	1 1	440	0	500	88	5	ug/l
	MS	930918-1	1	480	0	500	96	5	ug/l
	MS	930936-1	1	470	0	500	94	5	ug/l
	MS	930762-00	1	480	0	500	96	5	ug/l
	MS	930762-4	1	460	0	500	92	5	ug/l
	MS	930762-5	1	490	0	500	98	5	ug/l
/inyl chloride	MS	930934-1	1	1060	0	1000	106	5	ug/l
1,1-Dichloroethene	MS	930934-1	1	1100	0	1000	110	5	ug/l
2-Butanone	MS	930934-1	1	760	0	1000	76	10	υg/l
Chloroform	MS	930934-1	1	720] 0	1000	72	5	ug/l
Carbon Tetrachloride	MS	930934-1] 1	1030	0	1000	103	5	ug/t
1,2-Dichloroethane	MS	930934-1	1	1130	, o	1000	113	5	ug/l
Benzene	MS	930934-1	1	1110	0	1000	111	5	ug/i
Trichloroethene	MS	930934-1	1	1100	} 0	1000	110	5	ug/l
Tetrachloroethene	MS	930934-1	1	1080) O	1000	108	5	ug/l
Chlorobenzene	MS	930934-1	1	1100	D	1000	110	5	ug/l
ont or obenzene	ms	930934-1	1	1100	l u	1000	110	•	ug/l
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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ASSURANCE REPORT QUALITY

05/05/93

JOB NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATIN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 04/21/93 TIME ANALYZED: 14:05 METHOD: EPA SW-846 8260

QC NUMBER:938822

EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or	DETECTION	UNITS OF MEASURE
nyl chloride	MO	930934-1	1	1 💙	<5	NC	5	ug/l
1-Dichloroethene Butanone	Mn	930934-1	1 1	<5	< 5	NC	5	ug/l
loroform	MD	930934-1	1	<10	≺10	NC NC	10	ug/l
arbon Tetrachloride	MD	930934-1	1	<5	<5	NC	5	ug/l
2-Dichloroethane	MD MD	930934-1 930934-1	1	<5 <5	< 5	NC	5	ug/l
enzene	MD	930934-1	1 1	<5	<5 <5	NC NC	5 5	ug/l
ichloroethene	MD	930934 - 1	1 1	<5	\ \s	NC	5	ug/l ug/l
trachloroethene	MD	930934-1	i	<5	<5	NC	5	ug/t ug/t
ıl orobenzene	MD /	930934-1	l i	< 5	45	NC	5	ug/l
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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ASSURANCE REPORT QUALITY

05/05/93

JOB NUMBER: 930934 CUSTOMERY ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 TIME ANALYZED: 08:14 METHOD: EPA SW-846 8270

QC NUMBER:939484

TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASUR
1,4-Dichlorobenzene	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	ug/l
,4-Dinitrotoluene	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	ug/l
lexach Lorobenzene	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	ug/l
	HB	4/29/93	1	<10	10	ug/l
lexachlorobutadiene	MB	4/26/93	1	≺10	10	ug/l
) MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	ug/l
Hexachloroethane	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	lug/l
_	MB	4/29/93	1	<10	10	ug/l
litrobenzene	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	սց/ Լ
Pentachlorophenol	MB	4/26/93	1	<50	50	ug/l
	MB	4/28/93	1	<50	50	ug/l
	MB	4/29/93	1	<50	50	ug/l
2,4,5-Trichlorophenol	MB	4/26/93	1	<10	10	ug/l
	, MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	ug/t
2,4,6-Trichlorophenol	MB	4/26/93	1	<10	10	ug/l
	MB	4/28/93	1	<10	10	ug/l
- 14	MB	4/29/93	1	<10	10	ug/l
Pyridine	MB	4/26/93	1	<10	10	lug/l
	MB	4/28/93	1	<10	10	ug/l
	MB	4/29/93	1	<10	10	ug/l
Cresols (Total)	MB	4/26/93	1	<30	30	lug/L
	MB	4/28/93	1	<30	30	ug/L
	MB	4/29/93	1	<30	30	ug/L
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1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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ASSURANCE REPORT QUALITY

05/05/93

JOH NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 TIME ANALYZED: 08:14 METHOD: EPA SW-846 8270

QC NUMBER: 939484

B285.7.1 B285.14.9 B285.7.1 B285.14.9 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1 B285.7.1	1 1 1 1 1 1 1 1 1 1 1 1 1	190 180 190 200 90 100 90 100 190 210 100 110 90 100 80	200 200 200 200 100 100 100 200 200 200	95 90 95 100 90 100 90 100 95 105 100 110 90	10 10 10 10 10 10 10 10 10 10 10	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
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8285.14.9 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	90 100 190 210 100 110 90 100 80	100 100 100 200 200 100 100 100	100 90 100 95 105 100 110	10 10 10 10 10 10	ug/l ug/l ug/l ug/l ug/l ug/l ug/l
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8285.14.9 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1	1 1 1 1 1 1 1 1 1 1	190 210 100 110 90 100 80	200 200 100 100 100 100	95 105 100 110 90	10 10 10 10 10	ug/l ug/l ug/l ug/l
8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1	1 1 1 1 1 1 1 1 1	210 100 110 90 100 80	200 200 100 100 100 100	95 105 100 110 90	10 10 10 10 10	ug/l ug/l ug/l
8285.74.9 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1	1 1 1 1 1 1 1 1 1	100 110 90 100 80	200 100 100 100 100	105 100 110 90	10 10 10	ug/l ug/l ug/l
8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1 8285.14.9	1 1 1 1 1 1 1	100 110 90 100 80	100 100 100 100	100 110 90	10 10 10	ug/l ug/l
8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1 8285.7.1	1 1 1 1 1 1 1	110 90 100 80	100 100 100	110 90	10 10	ug/l
8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1	1 1 1 1 1	90 1 0 0 8 0	100 100	90	10	
8285.14.9 8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1	1 1 1 1	100 80	100			
8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1	1 1 1	80			10	ug/(
8285.14.9 8285.7.1 8285.14.9 8285.7.1	1	1		80	10	ug/l
8285.7.1 8285.14.9 8285.7.1	1	1 7 7	100	90	10	ug/l
8285.14.9 8285.7.1		80	100	80	10	ug/l
B285.7.1		80	100	80	10	ug/l
	1 1	90	100	90	10	ug/l
10-05 11111	1 1	100	100	100	10	ug/l
8285.7.1	li	90	100	90	10	ug/l
B285.14.9	li	100	100	100	10	ug/l
B285.7.1	li	90	100	90	10	ug/l
B285.14.9	l i	100	100	100	10	ug/l
	1 1	i i				ug/l
ſ	l i			1 '	50	ug/l
	1 1	1			10	ug/l
	l i			1		ug/l
					10	ug/l
	l i	110			10	ug/l
	l i	90	100	90	10	ug/l
B285.14-9	1 '	90	100	90	10	ug/l
B285.7.1		270	300		30	ug/L
4	1 1		300		30	ug/L
	8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1 8285.14.9 8285.7.1	8285.7.1 1 8285.14.9 1 8285.7.1 1 8285.7.1 1 8285.7.1 1 8285.7.1 1 8285.7.1 1 8285.7.1 1	8285.7.1 1 80 8285.14.9 1 90 8285.7.1 1 90 8285.14.9 1 100 8285.7.1 1 100 8285.7.1 1 110 8285.7.1 1 90 8285.7.1 1 90 8285.7.1 1 90 8285.7.1 1 270	8285.7.1 1 80 100 8285.14.9 1 90 100 8285.7.1 1 90 100 8285.14.9 1 100 100 8285.7.1 1 100 100 8285.7.1 1 110 100 8285.7.1 1 90 100 8285.7.1 1 90 100 8285.7.1 1 270 300	8285.7.1 1 80 100 80 8285.14.9 1 90 100 90 8285.7.1 1 90 100 90 8285.14.9 1 100 100 100 8285.7.1 1 100 100 100 8285.14.9 1 110 100 110 8285.7.1 1 90 100 90 8285.14.9 1 90 100 90 8285.7.1 1 270 300 90	8285.7.1 1 80 100 80 50 8285.14.9 1 90 100 90 50 8285.7.1 1 90 100 90 10 8285.14.9 1 100 100 100 10 8285.7.1 1 100 100 10 10 8285.7.1 1 90 100 90 10 8285.7.1 1 90 100 90 10 8285.14.9 1 90 100 90 10 8285.7.1 1 270 300 90 30

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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QUALITY ASSURANCE REPORT

05/05/93

JOB NUMBER: \$309\$4 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 TIME ANALYZED: 08:14 METHOD: EPA SW-846 8270 QC NUMBER:939484

EST	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	GRIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
DESCRIPTION	SUB-TYPE	I.D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY	LIMITS	MEASURE
-Fluorophenol	MB	930971-00	1	70	0	200	35	10	ug/l
	MS	930971-1	1 1	860	0	2000	43	10	ug/l
	2N	930972-1	1	700	0	2000	35	10	ug/l
	MS	930973-1	1	1200	0	2000	60	10	ug/l
	MS	930976-1	1	830	0	2000	42	10	ug/l
	MS	930977-1	1	1100	0	2000	55	10	ug/t
	MB	930889-00	1	90	0	200	45	10	ug/l
	MS	930889-1	1	90	0	2000	4	10	ug/(
	MB	931012-00	1	100	0	200	50	10	ug/l
	MS	930934-1	1	120	0	200	60	10	ug/l
	MS	930950-2	1	110	0	200	55	10	ug/l
	MS	931012-1	1	110	0	200	55	10	ug/l
	MS	930978-1	1	1300	0	2000	65	10	ug/l
	MS	930979-2	1	110	0	200	55	10	ug/l
nenal-d6	MB	930971-00	1 1	100	0	200	50	10	ug/l
	MS	930971-1	1 1	1100	0	2000	55	10	ug/l
	MS	930972-1	1	670	Ó	2000	34.	10	ug/l
	MS	930973-1	1	1400	0	2000	70	10	ug/l
	MS	930976-1	1	1000	0	2000	50	10	ug/t
	MS	930977-1	ĺi	1300	0	2000	65	10	ug/l
	МВ	930889-00	l i	50	Ö	200	25	10	ug/l
	MS	930889-1	1 i	100	Ò	2000	5	10	ug/l
	MB	931012-00	i	130	Ō	200	65	10	ug/l
	MS	930934-1	1 1	140	1 0	200	70	10	ug/l
	MS	930950-2	1	50	lõ	200	25	10	ug/l
	MS	931012-1	li	150	l ŏ	200	75	10	ug/l
	MS	930978-1	1 1	1400	Ĭŏ	2000	70	10	ug/l
•	MS	930979-2		150	ŏ	200	75	10	ug/l
trobenzene-d5	MB	930971-00	1 ;	50	ŏ	100	so	10	ug/l
	MS	930971-1	1 1	600	Ö	1000	60	10	ug/l
	MS	930972-1	i i	710	ŏ	1000	71	10	ug/l
	MS	930973-1	1 1	750	lŏ	1000	75	10	ug/l
	MS	930976-1	i	540	lŏ	1000	54	10	ug/l
	. Ms "	930977-1	1 1	690	l ŏ	1000	69	10	ug/l
	MB	930889-00	1 1	60	Ìŏ	100	60	10	ug/(
	MS	930809-1	li	650	lŏ	1000	65	10	ug/l
	MB	931012-00	i	70	Ìŏ	100	70	10	ug/l
	MS	930934-1	l i	70) ŏ	100	70	10	ug/l
	MS	930950-2	1 i	80	ŏ	100	80	10	ug/l
	MS	931012-1	l i	80) o	100	80	10	ug/l
	MS	930978-1	l i	700	Ö	1000	70	10	ug/l.
	MS	930979-2	1 1	70	Ö	100	70	10	ug/l
Fluorobiphenyl	ME	930971-00	li	44	ŏ	100	44	10	ug/l
·	MS	930971-1	1 1	480) ŏ	1000	48	10	ug/l
	lu9	17307/111		1 400		11704	1 70		ug/l

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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QUALITY ASSURANCE REPORT

05/05/93

JOB NUMBER: 930934 CUSTOMER: OMSITE TECHNOLOGIES LIMITED ATTN: DAVE COR

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 TIME ANALYZED: 08:14 METHOD: EPA SW-846 8270

QC NUMBER:939484

EST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP1KE ADDED	PERCENT	DETECTION	UNITS OF MEASURE
/	308-1175	1. 0.	PALIUR	VALUE	AVER	ADDED	RECOVERY	LIMIIS	HEAGURE
	MS	930973-1	1	570	0	1000	57	10	ug/l
•	MS	930976-1	1 .	550	Q	1000	55	10	ug/l
	MS	930977-1	1	520	} 0	1000	52	10	ug/l
	MB	930889-00	1	70	0	100	70	10	ug/l
	MS	930889-1	1	670	0	1000	67	10	ug/l
	MB	931012-00] 1	50	0	100	50	10	ug/l
	MS	931012-1	1	70	0	100	70	10	ug/l
	MS	930934-1	1	60	0	100	60	10	ug/l
	MS	930950-2	1	60	0	100	60	10	ug/l
	MS	930978-1	1 1	520	0	1000	52	10	ug/t
	MS	930979-Z	1	60	l a	100	60	10	ug/l
,4,6-Tribromophenol	MB	930971-00	1 1	120	0	200	60	10	ug/l
•	MS	930971-1	1	1400	Ō	2000	70	10	ug/l
	MS	930972-1	1 i	1400	Ŏ	2000	70	10	ug/l
	MS	930973-1	1	1600	Ò	2000	80	10	ug/l
	MS	930976-1	l i	1200	Ö	2000	60	10	ug/(
	MS	930977-1	1	1600	ŏ	2000	80	10	ug/(
	MB	930889-00	l i	160	l ŏ	200	80	10	ug/l
	MS	930889-1	j	230	Ö	2000	12	10	ug/l
		4	1		l ŏ				ug/l
	MB	931012-00	1	160 190	1 -	200	80	10	ug/ t
	MS	930934-1	1		0	200	95	10	ug/l
	MS	930950-2	1 1	190	0	200	95	10	ug/L
	MS	931012-1	1 1	100	0	200	50	10	ug/l
	MS	930978-1	1	1600	0	2000	80	10	ug/l
	MS	930979-2	1	180	0	200	90	10	ug/l
erphenyl-d14	MB	930971-00	1	70	0	100	70	10	ug/l
	MS	930971-1	1	750	0	1000	75	10	ug/l
	MS	930972-1	1 1	770	0	1000	77	10	ug/l
	MS	930973-1	1	760	a	1000	76	10	ug/l
	MS	930976-1	1 1	760	0	1000	76	10	ug/l
	MS	930977-1	1	840	0	1000	84	10	ug/l
	MB	930889-00	1 1	70	0	100	70	10	ug/l
•	MS	930889~1	1	760	0	1000	76	10	ug/l
	MB	931012-00	1 1	80	0	100	80	10	ug/l
	MS	930934-1	1	80	lo	100	80	10	ug/l
	MS	930950-2	1 1	80	Ó	100	80	10	ug/l
	MS	931012-1	i	80	Ò	100	80	10	ug/l
	MS	930978-1	j i	820	Ō	1000	82	10	ug/l
	MS	930979-2	i	80	Ŏ	100	80	10	ug/l
,4-Dichlorobenzene	MS	930971-1	1	850	ìŏ	2500	34		ug/l
, - promoter examples	MSD	930971-1	1 1	660	ŏ	2500	26	10	ug/l.
	BS	930971-00] ;	70	0	250	28	10	ug/l
			1	190	0	250	76	10	ug/l
	BS	930889-00	1 1	I	1	1		1	ug/(
	MS	930934 - 1	1	60	0	250	24	10	ug/t ug/t
	(MS	930950-2	[1	90	0	250	36	10	ug/ t

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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QUALITY ASSURANCE REPORT

05/05/93

JOB NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 | TIME ANALYZED: 08:14 | METHOD: EPA SV-846 8270 | OC NUMBER:939484

EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SPIKE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
	MS	930978-1	1	800	0	2500	32	10	ug/l
	MS	930979-2	1	100	0	250	40	10	ug/l
,4-Dinitrotoluene	MS	930971-1	1	1600	. 0	2500	64	10	ug/l
	MSD	930971-1	1	1500	0	2500	60	10	ug/l
	BS	930971-00	1	130) 0	250	52	10	ug/l
	BS	930889-00	1	150	0	250	60	10	ug/l
	MS	930934-1	1	140	0	250	56	10	ug/l
	MS	930950-2	1	160	0	250	64	10	ug/l
	MS	930978-1	1	1600	0	2500	64	10	ug/l
·	MS	930979-2	1 1	190	1 0	250	76	10	ug/l
exach (orobenzene	MS	930971-1	1 1	1900	0	2500	76	10	ug/l
	MSD	930971-1	li	1900	ا م	2500	76	10	ug/l
	BS	930971-00	1 1	170	Ō	250	68	10	ug/l
	BS	930889-00	l i	220	0	250	88	10	ug/l
	MS	930934-1	l i	210	Ö	250	84	10	ug/l
	MS	930950-2	1	240	Ó	250	96	10	ug/l
	MS	930978-1	l i	2300	Ō	2500	92	10	ug/l
Hexachlorobutadiene	MS	930979-2	1	230	0	250	92	10	ug/l
	MS	930971-1	1 1	700	0	2500	28	10	ug/t
	MSD	930971-1	li	470	0	2500	19	10	ug/l
	BS	930971-00	i i	80	Ō	250	32	10	ug/l
	BS	930889-00	l i	210	0	250	84	10	ug/l
	MS	930934-1	l i	110	l ŏ	250	44	10	ug/l
	MS	930950-2	1 1	170	0	250	68	10	ug/l
	MS	930978-1	l i	1500	l o	2500	60	,	ug/l
	MS	930979-2] i	150	lo	250	60	10	ug/l
exachloroethene	MS	930971-1	1 1	560	ìŏ	2500	22	10	ug/l
	MSD	930971-1	1 1	370	ì	2500	15	10	ug/l
	las	930971-00	li	50	Ĭŏ	250	20	10	ug/l
	BS	930889-00	1 1	180	ا آ	250	72	10	ug/l
	HS	930934-1	i	50	Ō	250	20	10	ug/l
	MS	930950-2	1 i	90	B	250	36	10	ug/l
	MS	930978-1	l i	660	l ā	2500	26	10	ug/l
	MS	930979-2	l i	80	lo	250	32	10	ug/l
trobenzene	MS	930971-1	l i	2000	0	2500	80	10	ug/l
	MSD	930971-1	1 1	2000	o	2500	80	10	ug/l
	BS	930971-00	l i	120	0	250	48	10	ug/l
	BS	930889-00	l i	170	Ìŏ	250	68	10	ug/l
	MS	930934 - 1	1 1	170) 0	250	68	10	ug/l
	MS	930950-2	! ;	180	o	250	72	10	ug/l
	MS	930978-1	l i	1900	lo	2500	76	10	ug/l
	MS	930979-2	l i	130) ō	250	52	10	ug/l
ntachlorophenol	MS	930971-1	li	4400) o	7500	59	50	ug/l
	MSD	930971-1	l i	5100	ŏ	7500	68	50	ug/l

1733 HORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

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CORE LABORATORIES

OUALITY ASSURANCE REPORT

05/05/93

JOB NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 05/03/93 TIME ANALYZED: 08:14 METHOD: EPA SW-846 8270

QC NUMBER:939484

DESCRIPTION	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	ORIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
	SUB-TYPE	I. D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY	LIMITS	MEASURE
	BS	930889-00	1	530	a	750	71	50	ug/l
	MS	930934-1	1	530	0	750	71	50	ug/l
	MS	930950-2	1	580	0	750	77	50	ug/l
	MS	930978-1	1 1	6100	0	7500	81	50	ug/l
	MS	930979-2	1	600	0	750	80	50	ug/l
2,4,5-Trichlorophenol	MS	930971-1	1	4500	0	7500	60	10	ug/l
	MSD	930971-1	1	5400	0	7500	72	10	ug/l
	BS	930971-00	1 1	410	0	750	55	10	ug/(
	8\$	930889-00] 1	590	0	750	79	10	ug/l
	MS	930934-1	1 1	560	0	750	75	10	ug/l
	ZM S	930950-2] 1	600	0	750	80	10	ug/l
	MS	930978-1	1	6000	0	7500	80	10	ug/l
	MS	930979-2	1	660	0	750	88	10	ug/l
2,4,6-Trichlorophenol	KS	930971-1	1	1600	0	2500	64	10	ug/l
	MSD	930971-1	1 1	2000	0	2500	80	10	ug/l
	BS	930971-00	1 1	140	0	250	56	10	ug/l
	BS	930889-00	1	200	0	250	80	10	ug/l
	MS	930934-1	1 1	200	O	250	80	10	ug/t
	MS	930950-2	1 1	210	0	250	84	10	ng/t
	MS	930978-1	1	2200	0	2500	88	10	ug/l
	MS	930979-2	1	240	l ō	250	96		ug/l
Pyridine	MS	930971-1	1	4000	Ō	5000	80	10	ug/l
	MSD	930971-1	i	4100	Ιŏ	5000	82		ug/l
	8\$	930971-00	1 1	300	l ŏ	500	60		ug/l
	BS	930889-00	li	240	lŏ	500	48	10	ug/l
	MS	930934-1	1 1	350	0	500	70	10	ug/l
	MS	930950-2	Ιi	360	lõ	500	72		ug/l
	MS	930978-1	1 1	3700	Ŏ	5000	74	10	ug/l
	MS	930979-2	li	420	ìŏ	500	84		ug/l
resols (Total)	2M	930971-1	l i	5300	Ö	7500	71	30	ug/L
	MSD	930971-1	(i	5200	lő	7500	69	30	ug/L
•	BS	930889-00	l i	440	ľ	750	59		ug/L
	MS	930934-1	1 1	500	ŏ	750	67		ug/L ug/L
	1	930950-2	i	540	١٥	750	72		ug/L
	2M							JQ	
	MS MS	930978-1	1	5300	0	7500	71	30	ug/L

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISII, TX 78408 (512) 289-2673

In a analysis of share the interpretation of the properties of the properties of the properties of the contract of the properties of the p

The second state of the second



QUALITY ASSURANCE FOOTER 05/05/93

Standard Methods for the Examination of Water and Wastewater, 17th Ed. APMA, AWWA, WPCF. USEPA SW-846 3rd. Edition, Test Methods for the Evaluation of Solid Waste EPA-600/4-79-020, Methods for the Analysis of Water and Wastes, March 1983 Federal Register, Friday, October 26, 1984 (40 CFR Part 136). EPA-600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils.

Quality control acceptance criteria are method dependent. GCMS tuning criteria meet EPA CLP Statement of Work GLM01.0. All data reported on sample "as received" unless noted.

NC = Not Calculated due to value at or below detection limit.

NOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.

The "TIME ANALYZED" in the QA Report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "DATE ANALYZED" is the actual date of analysis.

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

the phalasts objects of interpretations continued to the interpretations of opening the phalastic organisms and material supplies on the interpretations of the interpretations of opening expressed them.



QC SAMPLE IDENTIFICATION

1. BLANKS	Method or Method / Type Reagent Initial Calibration Continuing Calibration Storage	MB or MB / type* RB ICB CCB SB
2. STANDARDS	Laboratory Control Reference Initial Calibration Continuing Calibration	LCS RS ICV CCV
3. SPIKES	Matrix Blank Post Digestion Spike Matrix Spike Duplicate	MS BS PDS MSD
4. DUPLICATES	Matrix Post Digestion Duplicate	MD PDD

^{*} In the event that several different method blanks are analyzed, the blank type will be designated ZHE, TCLP, 3010, 3050, etc.

Subcontracted Analysis Codes

Anaheim	*AN
Aurora	*AU
Casper	*CA
Houston	*HP
Lake Charles	*LC
Long Beach	*LB
Other Laboratories	*XX

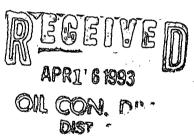
^{*} The asterisk in the "TECHN" column signifies that the analysis was performed by a subcontract laboratory.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxx
1. RCRA Exempt: □ Non-Exempt: □	4. Generator
Verbal Approval Received: Yes ⊠ No □	
	Hart Oil
2. Destination	Name of Originating Site
	Chimney Rock
Tierra Landfarm Crouch Mesa SJC	F & G Lease Common
3. Address of Facility Operator	6. Name of Transporter
909 West Apache, Farmington, NM	Doug Foutz Construction
7. Location of Material (Street Address or ULSTR)	8. State
420 County Rd. 3100 San Juan County,	New Mexico
9. <u>Check One</u>	
X A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste f	from the Generator; one certificate per job.
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of was Mexico Environment Department or other appropriate government agency; two certificates per job.	• •
C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyse and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be app	

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Approximately 14 cubic yards of soil contaminated as a result of crude oil spill



					oault 14	
Estimated Volume				by the operator at the end of the h	naul);	су
SIGNATURE	Phillip	C Vol.		e President	, DATE	
TYPE OR PRINT NAM	1E <u>Phillip</u> (C. Nobis	· · · · · · · · · · · · · · · · · · ·	TELEPHON	NE NO. 325-0924	
(This space for State Use)	eny 3	, Tourt	TITLE	Geologist	DATE 4	19/93
APPROVED BY	AL IE ANY:	Gusel) TITLE	Desloger)	<u>Д</u>	<u> 26/93</u>

April 7, 1993

Tierra Environment Company 909 West Apache Farmington, NM 87401

To Whom It May Concern,

...r.a. DEVELOPM

I, James P. Woosley, do herein certify that the soil hauled by Doug Fouzt Construction is the soil that was recovered from the "F & G" lease tank battery located at Chimney Rock Common, NW/4 Section 10 T31N R17W, San Juan County, New Mexico.

Jim Woosley

Hart Oil & Gas, Unc.

P.O. Drawer 1480 Cortez, CO 81321

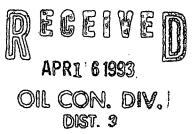
REQUEST FOR APPROVAL TO ACCEPT S	OLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxx
1. RCRA Exempt: 口 Non-Exempt: 菜		4. Generator
Verbal Approval Received: Yes 🖫	No 🗆	
·		Rust Tractor
2. Destination		5. Name of Originating Site
Tierra Landfarm Crouch Mesa		Rust Tractor
3. Address of Facility Operator		6. Name of Transporter
909 West Apache, Farmington, NM	ſ	Jackie Moss
7. Location of Material (Street Address or ULSTR)	8. State
420 County Rd. 3100 Crouch Mesa	San Juan County	New Mexico
9. Check One		
A. All requests for approval to accept oilfield exempt wastes will be accompanie	d by a certification of waste from the G	enerator; one certificate per job.

- B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.
- 💯 C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil Contaminated from waste oil pit. Lab reports previously furnished to OCD Mr. D. Foust.



Estimated Volume	3185
Thereby certify that the information above is true and complete to the best of my knowledge and belief.	4116193
SIGNATURE Wice President	DATE 4/16/73
TYPE OR PRINT NAME Phillip C. Nobis TELEPHONE NO.	325-0924
Control Control Hard	
APPROVED BY Deny 3. Four TITLE Geologist	DATE 4/19/93
	/ /
APPROVED BY Since Small TITLE State of	DATE 4/26/95
	1 D /-
conditions of approval, if any: Verbal approval from Roger And With sign-off from NMED	derson 2/26/9
with sign-off Evon NMED	,

PLATEAU ENVIRONMENTAL SERVICES

640 Main Avenue, Suite 202 Durango, Colorado 81301 303/259-3027

February 16, 1993

Mr. Phillip C. Nobis TIERRA Environmental Company, Inc. 909 West Apache Farmington, NM 87401

Dear Phillip:

This purpose of this letter is to obtain approval to dispose of soils contaminated with evaporation pond and sludge from a parts cleaning vat. The contaminated soils will be excavated from an old evaporation pond and the sludge from the bottom of a parts cleaning vat located at RUST Tractor 1000 Troy King Road, Farmington, New Mexico.

Approximately 2500 yards of oil contaminated soils and 5 yards of sludge are estimated for disposal at TIERRA's landfill located on Crouch Mesa. The sludge will be mixed with the soils during excavation of the evaporation pond.

Attached are analytical results for the soils and the sludge. Analytical samples of the soils were taken March 12, 1992 and analyzed by Westech Laboratories, Inc. for halogenated volatile organics, aromatic volatiles and total petroleum hydrocarbons. On September 10, 1992, additional samples were taken with analysis performed by Envirotech Labs for disposal at Envirotech's Hilltop, New Mexico land farm. Both sets of samples were taken for phase 1 remedial action at the RUST facility.

Analytical samples for the sludge were taken directly from the vat on January 5, 1993 and analyzed by Inter-Mountain Laboratories, Inc. Sludge samples were analyzed for TCLP Semi-volatiles, TCLP metals, RCRA characteristics. As you will notice the only parameter which is of concern is corrosivity. pH for the sludge sample was 13.0. Corrosivity was high due to the liquids in the vat. Prior to cleaning of the vat, liquids will be evaporated and a mild acid will be added to the sludge. The acid will be thoroughly mixed with the sludge to reduce the pH of the sludge to less than 9, ideally to 7. Upon complete mixing of the mild acid with the sludge, the sludge will then be removed from the vat and placed in the area to be excavated. During excavation the sludge will be mixed with the soils.

Excavation of the evaporation pond is scheduled for early March, depending upon acceptance of this waste and rainy weather. We will notify TIERRA, at least 4 days in advance, prior to the first truck load.

We hope the analysis provided and the mixing procedure proposed will be acceptable for disposal at your facility.

If you have questions or need further clarification please call me at 303-259-3027.

Sincerely,

John E. Casey, P.E.

cc: Randy Randlemon, RUST

Enclosures



CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

TIERRA ENVIRONMENTAL CORPORATION

February 17, 1993

Mr. D. Foust New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE:

PERMISSION TO ACCEPT NON-EXEMPT SOILS BY CHARACTERISTIC ANALYSIS FROM PLATEAU

ENVIRONMENTAL SERVICES:

Dear Mr. Foust:

Plateau Environmental has proposed to dispose of about twenty-five hundred (2,500) yards of soils contaminated with hydrocarbons at our Crouch Mesa Landfarm Facility.

I had explained to them that special analysis would be required and special OCD approval must be obtained by Tierra prior to acceptance.

Enclosed for your review is a letter from John E.Casey, PE of Plateau Environmental explaining the source of the material and the procedures Plateau plans to use to control the PH factor as well as, complete laboratory analysis of the material.

Their proposal, procedures for PH control and laboratory analysis have been review by Tierra. We feel we can successfully remediate the material and further that it will pose no threat to the environment.

Therefore, on behalf of Tierra we are requesting permission from your office to accept the material, with the condition that the PH is checked and is acceptable on each load of material delivered.

Thank you for your cooperation.

Sincerely,

Phillip C. Nobis
Vice President

Risk Management



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924 March 1, 1993

Mr. John E. Casey, P.E. Plateau Environmental Services 640 Main Avenue, Suite 202 Durango, Colorado 81301

RE:

APPROVAL TO RECEIVE SOILS FROM RUST TRACTOR

PROJECT:

Dear John:

Tierra has received approval from the New Mexico Oil Conservation Division (OCD) and the New Mexico Environment Department (NMED) Groundwater Bureau, to accept the material from Rust Tractor. We had to agree to check the PH on each load, prior to land application. I don't see that as a problem. We are equipped with field test equipment at the facility to do just that.

Therefore Plateau is approved to proceed to deliver the material to the Tierra Crouch Mesa Landfarm Facility. I would ask that you contact us twenty-four hours prior to delivery of the first load.

We appreciate the business.

Give me a call if you have any questions.

Sincerely,

Phillip C. Nobis Vice President Risk Management



April 8, 1993

Mr. Richard Cheney, President Tierra Environmental Company, Inc 909 West Apache Farmington, New Mexico 87401

RE:

APPROVAL TO ACCEPT HYDROCARBON CONTAMINATED SOILS AT THE TIERRA OCD PERMITTED LANDFARM FACILITY, FROM RUST TRACTOR:

Dear Richard:

This letter is to confirm the verbal approval I gave to Mr. Phil Nobis of your company, regarding the above captioned subject. I reviewed the material sent to me on March 1, 1993 by Tierra. I provided a copy of the material to the Hazardous & Radioactive Materials Bureau as well.

The New Mexico Environment Department concurs with the New Mexico Oil Conservation Division, that the material contains Hazardous Substances. Therefore, the New Mexico Environment Department has no objection to the material being brought to your OCD Permitted facility in San Juan County.

Sincerely,

Bruce King Governor

Judith M. Espinosa Secretary

Ron Curry Deputy Secretary

Dennis McQuillan, Manager Remediation Section

Dennis McQuillan

Groundwater Protection/Remediation Bureau

DM:ql

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe. NM 87502 (505) 827-2850 FAX (505) 827-2836

DRUG FREE



CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

TIERRA ENVIRONMENTAL CORPORATION

February 17, 1993

Mr. D. Foust New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE:

PERMISSION TO ACCEPT NON-EXEMPT SOILS BY CHARACTERISTIC ANALYSIS FROM PLATEAU **ENVIRONMENTAL SERVICES:**

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Their proposal, procedures for PH control and laboratory analysis have been review by Tierra. We feel we can successfully remediate the material and further that it will pose no threat to the environment.

Therefore, on behalf of Tierra we are requesting permission from your office to accept the material, with the condition that the PH is checked and is acceptable on each load of material delivered.

Thank you for your cooperation.

Sincerely.

Phillip C. Nobis Vice President

Risk Management

FEB1 81993

OIL CON. DIV.

Subject to Received Hand copy Subject to OFNMED Approval ED water 4/12/93 ED water Approval - as per Roge Quality Approval - as per Roge

Moved 4/5/93 -no written poermission or release

Excavation of the evaporation pond is scheduled for early March, depending upon acceptance of this waste and rainy weather. We will notify TIERRA, at least 4 days in advance, prior to the first truck load.

We hope the analysis provided and the mixing procedure proposed will be acceptable for disposal at your facility.

If you have questions or need further clarification please call me at 303-259-3027.

Sincerely,

John E. Casey, P.E.

cc: Randy Randlemon, RUST

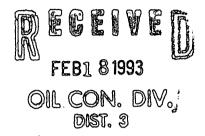
Enclosures

PLATEAU ENVIRONMENTAL SERVICES

640 Main Avenue, Suite 202 Durango, Colorado 81301 303/259-3027

February 16, 1993

Mr. Phillip C. Nobis TIERRA Environmental Company, Inc. 909 West Apache Farmington, NM 87401



Dear Phillip:

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STATE OF NEW MEXICO

ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

FAX TRANSMITTAL SHEET

DATE: march 4, 1993
TO: Kathy Brown ocb Santa Fe
FROM: Denny Foust - OCD, Aztec
FAX: 505-334-6170
comments: I talked to Roger about this, and ED is required to Sign-off. Done verbally now, written to follow.
verbally now, written to follow.
NUMBER OF PAGES INCLUDING COVER: Four

SOIL ANALYTICAL RESULTS

FEB1 8 1993
OIL CON. DIV.J
DIST. 3



FEB1 8 1993 3737 East Broadway Road Phoenix, Arizona 85040 OUT COM. AIR (602) 437-1080 • fax 437-8706

CLIENT PLATEAU ENVIRONMENTAL SERVICES ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301

SAMPLE NO. : 9203508 INVOICE NO.: 22120565 REPORT DATE: 03-30-92

REPORT DAIL.
REVIEWED BY 1 OF

CLIENT SAMPLE ID : SAMPLE 1-4 FT

SAMPLE TYPE: SOIL

SAMPLED BY: M. MATHESON SUBMITTED BY: M. MATHESON

SAMPLE SOURCE ...: --

ANALYST L. ANTONY

AUTHORIZED BY : M. MATHESON CLIENT P.O. : 0054-001

SAMPLE DATE ...: 03-12-92 SUBMITTAL DATE: 03-18-92

EXTRACTION DATE: 03-28-92

ANALYSIS DATE .: 03-28-92

Method 8010 - Halogenated Volatile Organics

DATA	TABLE		
Parameter	Result	Unit	Detection Limit
Bromochloromethane	<1.0	ug/L	1.0
Bromodichloromethane	<1.0	uq/L	1.0
Bromoform	<1.0	ug/L	1.0
Bromomethane	<1.0	ug/L	1.0
Carbon tetrachloride:	<0.5	ug/L	0.5
Chlorobenzene	<1.0	ug/L	1.0
Chloroethane:	<1.0	ug/L	1.0
Chloroform	<0.5	ug/L	0.5
Chloromethane	<1.0	ug/L	1.0
Dibromochloromethane	<1.0	ug/L	1.0
1,2-Dichlorobenzene:	<1.0	ug/L	1.0
1,3-Dichlorobenzene	<1.0	ug/L	1.0
1,4-Dichlorobenzene	<1.0	ug/L	1.0
Dichlorodifluoromethane:	<1.0	ug/L	1.0
1,1-Dichloroethane:	<0.5	ug/L	0.5
1,2-Dichloroethane:	<0.5	ug/L	0.5
1,1-Dichloroethene:	<0.5	${ t ug/L}$	0.5
cis 1,2-Dichloroethene	<0.5	\mathtt{ug}/\mathtt{L}	0.5
trans 1,2-Dichloroethene:	<1.0	${\tt ug/L}$	1.0
1,2-Dichloropropane:	<0.5	${ t ug/L}$	0.5
trans 1,3-Dichloropropene:	<0.5	\mathtt{ug}/\mathtt{L}	0.5
cis 1,3-Dichloropropene:	<0.5	${ t ug/L}$	0.5
Dichloromethane:	<5.0	${ t ug/L}$	5.0
1,1,2,2-Tetrachloroethane:	<0.5	\mathtt{ug}/\mathtt{L}	0.5
1,1,2,2-Tetrachloroethene:	<0.5	\mathtt{ug}/\mathtt{L}	0.5
1,1,1-Trichloroethane	<0.5	ug/L	0.5
1,1,2-Trichloroethane:	<0.5	ug/L	0.5
Trichloroethene:	<0.5	${ t ug/L}$	0.5
Trichlorofluoromethane:	<1.0	\mathtt{ug}/\mathtt{L}	1.0
Vinyl chloride:	<1.0	ug/L	1.0



3737 East Broadway Road Phoenix, Arizona 85040 (602) 437-1080 • fax 437-8706

CLIENT PLATEAU ENVIRONMENTAL SERVICES ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301

SAMPLE NO.: 9203508 INVOICE NO.: 22120565 REPORT DATE: 03-30-92 REVIEWED BY 7 PAGE 2 OF 2

DATA	TABLE		(Cont.)
Parameter	Result	Unit	Detection Limit
2-Chloroethylvinyl Ether:	<200.	ug/L	200.



Westech
Laboratories
Inc.

3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-1080 • fax 437-8706

FEB1 81993

OIL CON. DIV.

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CLIENT PLATEAU ENVIRONMENTAL SERVICES

ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301 SAMPLE NO.: 9203508 INVOICE NO.: 22120565 REPORT DATE: 03-30-92 REVIEWED BY A ALN PAGE: 1 OF 1

CLIENT SAMPLE ID : SAMPLE 1-4 FT

SAMPLE TYPE: SOIL

SAMPLED BY: M. MATHESON SUBMITTED BY: M. MATHESON

SAMPLE SOURCE ...: --

ANALYST L. ANTONY

AUTHORIZED BY : M. MATHESON

CLIENT P.O. : 0054-001 SAMPLE DATE ...: 03-12-92

SUBMITTAL DATE: 03-18-92 EXTRACTION DATE: 03-28-92

ANALYSIS DATE .: 03-28-92

Method 8020 - Aromatic Volatiles

DATA	T A B L E		
Parameter	Result	Unit	Detection Limit
Chlorobenzene:	<1.0	ug/L	1.0
1,2-Dichlorobenzene:	<1.0	ug/L	1.0
1,3-Dichlorobenzene:	<1.0	ug/L	1.0
1,4-Dichlorobenzene:	<1.0	ug/L	1.0
Ethylbenzene:	11.	ug/L	1.0
Toluene:	270.	ug/L	1.0
Total Xylenes:	14.	ug/L	0.3
Benzene:	<1.0	ug/L	1.0

Surrogate Information -

Percent

2-Chloro-m-Xylene:

Recovery 84.0 Range 75-120



OIL CON. DIV.

CLIENT PLATEAU ENVIRONMENTAL SERVICES

ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301

SAMPLE NO.: 9203509 INVOICE NO.: 22120565 REPORT DATE: 04-01-92

REVIEWED BY A FAN PAGE 1 OF 1

CLIENT SAMPLE ID : SAMPLE 2-4 FT

SAMPLE TYPE: SOIL

SAMPLED BY: M. MATHESON SUBMITTED BY: M. MATHESON

SAMPLE SOURCE ...: --

ANALYST S. WEIDINGER

AUTHORIZED BY : M. MATHESON CLIENT P.O. : 0054-001

SAMPLE DATE ...: 03-12-92

SUBMITTAL DATE: 03-18-92 EXTRACTION DATE: 03-20-92

ANALYSIS DATE .: 03-20-92

Modified 418.1 - Total Petroleum Fuel Hydrocarbons

	Pai	rameter		Result	Unit	Detection <u>Limit</u>
otal I	etroleum		••••	24000.	mg/kg	10.
		,				
				•		



Westech
Laboratories
Inc.

3737 East Broadway Road
Phoenix, Arizona 85040
(602) 437-1080 • fax 437-8706

FEB1 8 1993 OIL CON. DIV.

CLIENT PLATEAU ENVIRONMENTAL SERVICES

ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301

SAMPLE NO.: 9203510
INVOICE NO.: 22120565
REPORT DATE: 04-01-92
REVIEWED BY: MG. AGN
PAGE 1 OF 1

CLIENT SAMPLE ID : SAMPLE 3-15 FT

SAMPLE TYPE: SOIL

SAMPLED BY: M. MATHESON SUBMITTED BY: M. MATHESON

SAMPLE SOURCE ...: --

ANALYST S. WEIDINGER

AUTHORIZED BY : M. MATHESON

CLIENT P.O. : 0054-001 SAMPLE DATE ...: 03-16-92

SUBMITTAL DATE: 03-18-92 EXTRACTION DATE: 03-20-92

ANALYSIS DATE .: 03-20-92

Modified 418.1 - Total Petroleum Fuel Hydrocarbons

		DATA	TABLE		
	Parameter		Result	Unit	Detection Limit
Total Petr	oleum Hydrocarbon	ıs:	<10.	mg/kg	10.
		•			
•					



Westech
Laboratories
Phoenix, Arizona 85040
(602) 437-1080 • fax 437-8706

OIL CON. DIV.

CLIENT PLATEAU ENVIRONMENTAL SERVICES

ATTN: MICHAEL MATHESON 640 MAIN AVENUE, #202 DURANGO, CO 81301

SAMPLE NO.: 9203511
INVOICE NO.: 22120565
REPORT DATE: 04-01-92
REVIEWED BY: 4 HEN
PAGE 1 OF 1

CLIENT SAMPLE ID : SAMPLE 4-15 FT

SAMPLE TYPE: SOIL

SAMPLED BY: M. MATHESON SUBMITTED BY: M. MATHESON

SAMPLE SOURCE ...: --

ANALYST S. WEIDINGER

AUTHORIZED BY : M. MATHESON CLIENT P.O. : 0054-001

SAMPLE DATE ...: 03-16-92 SUBMITTAL DATE : 03-18-92

EXTRACTION DATE: 03-20-92

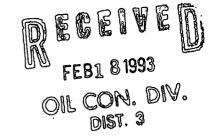
ANALYSIS DATE .: 03-20-92

Modified 418.1 - Total Petroleum Fuel Hydrocarbons

D.	ATA	TABLE		
Parameter		Result	Unit	Detection Limit
Total Petroleum Hydrocarbons	:	<10.	mg/kg	10.
			·	
		l		
				•
			- 	



3737 East Broadway Road Phoenix, Arizona 85040 (602) 437-1080 • fax 437-8706



QUALITY CONTROL REPORT

QC IDENTIFIER: 112-032092-1

INSTRUMENT : Beckman Acculab IR-TPHC.

REFERENCE NOTEBOOK : CH-071

ANALYZED BY : S. WEIDINGER

REFERENCE PAGE: 60&61

ANALYZED ON: 03-20-92

TEST DESCRIPTION ..: Modified 418.1 - Total Petroleum Fuel Hydrocarbons

TEST METHOD: Modified 418.1 - Soil

SAMPLES IN THIS RUN: 9203509 9203510 9203511 9203528 9203529 9203530 9203531 9203532 9203533 9203534 9203571 9203572 9203573 9203578 9203579 9203580 9203581 9203582 9203583 9203589 9203590 9203591 9203592 9203593 9203594 9203595 9203596 9203597

9203598 9203599 9203600 9203601 9203628

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE F	OUND VALUE	%RECOVERY
INITIAL:				
Total Petroleum Hydrocarbons	mg/L	100.	100.	100.0
CONTINUING:				
Total Petroleum Hydrocarbons	mg/L	100.	97.	97.0
Total Petroleum Hydrocarbons	mg/L	100.	97.	97.0
Total Petroleum Hydrocarbons	mg/L	100.	97.	97.0
FINAL:				
Total Petroleum Hydrocarbons	mg/L	100.	94.	94.0

REPLICATES -

NUMBER	PARAMETER	UNIT	RESULT	REPLICATE	RPD%
9203510	Total Petroleum Hydrocarbons	mg/kg	<10.	<10.	NC
9203572	Total Petroleum Hydrocarbons	mg/kg	<10.	<10.	NC
9203594	Total Petroleum Hydrocarbons	mg/kg	<10.	<10.	NC
9203628	Total Petroleum Hydrocarbons	mg/kg	<10.	<10.	NC

WESTECH LABORATORIES



QC IDENTIFIER: 112-032092-1

INSTRUMENT : Beckman Acculab IR-TPHC.

REFERENCE NOTEBOOK : CH-071

ANALYZED BY : S. WEIDINGER

REFERENCE PAGE: 60&61 ANALYZED ON : 03-20-92

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE AMOUNT	SAMPLE+SPIK	E %RECOVERY
9203510	Total Petroleum Hydrocarbons	mg/kg	<10.	100.	100.	100.0
9203572	Total Petroleum Hydrocarbons	mg/kg	<10.	100.	97.	97.0
9203594	Total Petroleum Hydrocarbons	mg/kg	<10.	100.	100.	100.0
9203628	Total Petroleum Hydrocarbons	mg/kg	<10.	100.	94.	94.0

METHOD BLANKS -

PARAMETER	TINU	RESULT
Total Petroleum Hydrocarbons	mg/kg	<10.

NOTE -

- 1) NC: Not Calculable because result is < 5 times the MDL
- 2) NP: Not Practical because sample result is 4 times or more greater than spike added.
- 3) Percent Recovery is:

Sample+Spike Result - Sample Result x 100 Spike Amount

4) Relative Percent Difference (RPD) is:

Sample Result - Replicate Result x 100
(Sample Result + Replicate Result)/2



QC IDENTIFIER: 104-032892-1

3737 East Broadway Road Phoenix, Arizona 85040 (602) 437-1080 • fax 437-8706

FEB1 8 1993 OIL CON. DIV.; DIST. 3

QUALITY CONTROL REPORT

INSTRUMENT : Perkin Elmer with Hall & PID.

REFERENCE NOTEBOOK: CH-081

REFERENCE PAGE ...: 84

ANALYZED BY: L. ANTONY
ANALYZED ON: 03-28-92

TEST DESCRIPTION ..: EPA 8010/8020 - Halogenated & Aromatic Volatile Organics

TEST METHOD: EPA 8010/8020 - Soil

SAMPLES IN THIS RUN: 9203508 9203845 9203846 9203847 9203848 9203849 9203850

9203851 9203852

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE	FOUND VALUE	*RECOVERY
NITIAL:				
1,2-Dichloropropane	ug/L	10.	10.	100.0
1,1,2,2-Tetrachloroethane	ug/L	10.	8.7	87.0
1,1-Dichloroethane	ug/L	10.	10.	100.0
1,1-Dichloroethene	ug/L	10.	9.7	97.0
Bromoform	ug/L	10.	9.4	94.0
Chlorobenzene	ug/L	10.	10.	100.0
Chloroform	ug/L	10.	10.	100.0
Chloromethane	ug/L	10.	12.	120.0
Ethylbenzene	ug/L	10.	10.	100.0
Toluene	ug/L	10.	9.8	98.0
Vinyl chloride	ug/L	10.	9.5	95.0
CONTINUING:				
1,2-Dichloropropane	ug/L	10.	10.	100.0
1,1,2,2-Tetrachloroethane	ug/L	10.	9.6	96.0
1,1-Dichloroethane	ug/L	10.	9.8	98.0
1,1-Dichloroethene	ug/L	10.	9.1	91.0
Bromoform	ug/L	10.	8.0	80.0
Chlorobenzene	ug/L	10.	9.3	93.0
Chloroform	ug/L	10.	9.8	98.0
Chloromethane	ug/L	10.	12.	120.0
Ethylbenzene	ug/L	10.	10.	100.0
Toluene	ug/L	10.	9.6	96.0
Vinyl chloride	ug/L	10.	9.0	90.0
1,2-Dichloropropane	ug/L	10.	10.	100.0
1,1,2,2-Tetrachloroethane	ug/L	10.	9.6	96.0
1,1-Dichloroethane	ug/L	10.	9.8	98.0
1,1-Dichloroethene	ug/L	10.	9.1	91.0
Bromoform	ug/L	10.	8.0	80.0
Chlorobenzene	ug/L	10.	9.3	93.0
Chloroform	ug/L	10.	9.8	98.0
Chloromethane	ug/L	10.	12.	120.0
Ethylbenzene	ug/L	10.	10.	100.0
Toluene	ug/L	10.	9.6	96.0



QC IDENTIFIER: 104-032892-1

INSTRUMENT : Perkin Elmer with Hall & PID.

REFERENCE NOTEBOOK : CH-081
REFERENCE PAGE: 84

ANALYZED BY : L. ANTONY ANALYZED ON : 03-28-92

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE	FOUND VALUE	*RECOVERY
CONTINUING:				
Vinyl chloride	ug/L	10.	9.0	90.0
FINAL:				
1,2-Dichloropropane	ug/L	10.	11.	110.0
1,1,2,2-Tetrachloroethane	ug/L	10.	7.7	77.0
1,1-Dichloroethane	ug/L	10.	9.5	95.0
1,1-Dichloroethene	ug/L	10.	10.	100.0
Bromoform	ug/L	10.	8.2	82.0
Chlorobenzene	ug/L	10.	9.3	93.0
Chloroform	ug/L	10.	10.	100.0
Chloromethane	ug/L	10.	12.	120.0
Ethylbenzene	ug/L	10.	8.4	84.0
Toluene	ug/L	10.	8.4	84.0
Vinyl chloride	ug/L	10.	9.5	95.0

REPLICATES -

SAMPLE					
NUMBER	PARAMETER	UNIT	RESULT	REPLICATE	RPD%
9203508	Bromochloromethane	ug/L	<1.0	<1.0	NC
9203508	Bromodichloromethane	ug/L	<1.0	<1.0	NC
9203508	Bromoform	ug/L	<1.0	<1.0	NC
9203508	Bromomethane	ug/L	<1.0	<1.0	NC
9203508	Carbon tetrachloride	ug/L	<0.5	<0.5	NC
9203508	Chlorobenzene	ug/L	<1.0	<1.0	NC
9203508	Chloroethane	ug/L	<1.0	<1.0	NC
9203508	Chloroform	ug/L	<0.5	<0.5	NC
9203508	Chloromethane	ug/L	<1.0	<1.0	NC
9203508	Dibromochloromethane	ug/L	<1.0	<1.0	NC
9203508	1,2-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	1,3-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	1,4-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	Dichlorodifluoromethane	ug/L	<1.0	<1.0	NC
9203508	1,1-Dichloroethane	ug/L	<0.5	<0.5	NC
9203508	1,2-Dichloroethane	ug/L	<0.5	<0.5	NC



QC IDENTIFIER: 104-032892-1

INSTRUMENT : Perkin Elmer with Hall & PID.

REFERENCE NOTEBOOK : CH-081 REFERENCE PAGE: 84

ANALYZED BY : L. ANTONY

ANALYZED ON: 03-28-92

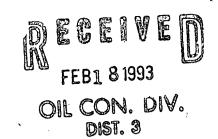
REPLICATES -

SAMPLE

NUMBER	PARAMETER	UNIT	RESULT	REPLICATE	RPD%
9203508	1,1-Dichloroethene	ug/L	<0.5	<0.5	NC
	cis 1,2-Dichloroethene	ug/L	<0.5	<0.5	NC
	trans 1,2-Dichloroethene	ug/L	<1.0	<1.0	NC
	1,2-Dichloropropane	ug/L	<0.5	<0.5	NC
	1,3-Dichloropropane	ug/L	<0.5	<0.5	NC
	2,2-Dichloropropane	ug/L	<0.5	<0.5	NC
	Dichloromethane	ug/L	32.	34.	6.1
	1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	NC
	1,1,2,2-Tetrachloroethene	ug/L	<0.5	<0.5	NC
	1,1,1-Trichloroethane	ug/L	<0.5	<0.5	NC
	1,1,2-Trichloroethane	ug/L	<0.5	<0.5	NC
	Trichloroethene	ug/L	<0.5	<0.5	NC
	Trichlorofluoromethane	ug/L	<1.0	<1.0	NC
	Vinyl chloride	-	<1.0	<1.0	NC
	2-Chloroethylvinyl Ether	ug/L			
		ug/L	<200.	<200.	NC
	Chlorobenzene	ug/L	<1.0	<1.0	NC
	1,2-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	1,3-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	1,4-Dichlorobenzene	ug/L	<1.0	<1.0	NC
9203508	Ethylbenzene	ug/L	11.	11.	0.0
9203508	Toluene	ug/L	270.	270.	0.0
9203508	Total Xylenes	ug/L	14.	14.	0.0
9203508	Benzene	ug/L	<1.0	<1.0	NC

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE AMOUNT	SAMPLE+SPIKE RESULT	*RECOVERY
9203508	Bromoform	ug/L	<1.0	0.050	0.043	86.0
9203508	Chlorobenzene	ug/L	<1.0	0.050	0.047	94.0
9203508	Chloroform	ug/L	<0.5	0.050	0.049	98.0
9203508	Chloromethane	ug/L	<1.0	0.050	0.051	102.0
9203508	1,1-Dichloroethane	ug/L	<0.5	0.050	0.053	106.0
9203508	1,1-Dichloroethene	ug/L	<0.5	0.050	0.046	92.0
9203508	1,2-Dichloropropane	ug/L	<0.5	0.050	0.050	100.0
9203508	1,1,2,2-Tetrachloroethane	ug/L	<0.5	0.050	0.050	100.0



QC IDENTIFIER: 104-032892-1

INSTRUMENT : Perkin Elmer with Hall & PID.

REFERENCE NOTEBOOK : CH-081
REFERENCE PAGE: 84

ANALYZED BY : L. ANTONY
ANALYZED ON : 03-28-92

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE AMOUNT	SAMPLE+SPIKE RESULT	*RECOVERY
9203508	Vinyl chloride	ug/L	<1.0	0.100	.092	92.0
9203508	Chlorobenzene	ug/L	<1.0	50.	47.	94.0
9203508	1,2-Dichlorobenzene	ug/L	<1.0	50.	44.	88.0
9203508	1,3-Dichlorobenzene	ug/L	<1.0	50.	49.	98.0
9203508	1,4-Dichlorobenzene	ug/L	<1.0	50.	47.	94.0
9203508	Ethylbenzene	ug/L	11.	50.	63.	104.0
9203508	Toluene	ug/L	270.	50.	310.	NP
9203508	Total Xylenes	ug/L	14.	150.	167.	102.0
9203508	Benzene	ug/L	<1.0	50.	49.	98.0

METHOD BLANKS -

PARAMETER	UNIT	RESULT
Bromochloromethane	ug/L	<1.0
Bromodichloromethane	ug/L	<1.0
Bromoform	ug/L	<1.0
Bromomethane	ug/L	<1.0
Carbon tetrachloride	ug/L	<0.5
Chlorobenzene	ug/L	<1.0
Chloroethane	ug/L	<1.0
Chloroform	ug/L	<0.5
Chloromethane	ug/L	<1.0
Dibromochloromethane	ug/L	<1.0
1,2-Dichlorobenzene	ug/L	<1.0
1,3-Dichlorobenzene	ug/L	<1.0
1,4-Dichlorobenzene	ug/L	<1.0
Dichlorodifluoromethane	ug/L	<1.0
1,1-Dichloroethane	ug/L	<0.5
1,2-Dichloroethane	ug/L	<0.5
1,1-Dichloroethene	ug/L	<0.5
cis 1,2-Dichloroethene	ug/L	<0.5
trans 1,2-Dichloroethene	ug/L	<1.0
1,2-Dichloropropane	ug/L	<0.5
trans 1,3-Dichloropropene	ug/L	<0.5
cis 1,3-Dichloropropene	ug/L	<0.5
Dichloromethane	ug/L	<5.0
1,1,2,2-Tetrachloroethane	ug/L	<0.5

QC IDENTIFIER: 104-032892-1

INSTRUMENT : Perkin Elmer with Hall & PID.

REFERENCE NOTEBOOK : CH-081
REFERENCE PAGE: 84

ANALYZED BY: L. ANTONY ANALYZED ON: 03-28-92

METHOD BLANKS -

PARAMETER	UNIT	RESULT
1,1,2,2-Tetrachloroethene	ug/L	<0.5
1,1,1-Trichloroethane	ug/L	<0.5
1,1,2-Trichloroethane	ug/L	<0.5
Trichloroethene	ug/L	<0.5
Trichlorofluoromethane	ug/L	<1.0
Vinyl chloride	ug/L	<1.0
2-Chloroethylvinyl Ether	ug/L	<200.
Chlorobenzene	ug/L	<1.0
1,2-Dichlorobenzene	ug/L	<1.0
1,3-Dichlorobenzene	ug/L	<1.0
1,4-Dichlorobenzene	ug/L	<1.0
Ethylbenzene	ug/L	<1.0
Toluene	ug/L	<1.0
Total Xylenes	ug/L	<0.3
Benzene	ug/L	<1.0

FEB1 8 1993 OIL CON. DIV. I DIST. 3

NOTE -

- 1) NC: Not Calculable because result is < 5 times the MDL
- 2) NP: Not Practical because sample result is 4 times or more greater than spike added.
- 3) Percent Recovery is:

Sample+Spike Result - Sample Result x 100 Spike Amount

4) Relative Percent Difference (RPD) is:

Sample Result - Replicate Result x 100
(Sample Result + Replicate Result)/2

WESTECH
LABORATORIES
INC.
QUALITY ASSURANCE OFFICE

MIN. Lei ke b

DATE: 4/2/92



Phoenix • 3737 East Broadway Road • AZ 85040 • 602 437 1080 • fax 437 8706 Flagstaff • 2400 East Huntington Drive • AZ 86004 • 602 774 8708 • fax 774 6469 El Paso • 10737 Gateway West #100 • TX 79935 • 915 592 3591 • fax 592 3594

CHAIN OF CUSTODY RECORD



Plateau Environmental	640 Main Suit	e 202
Services	Durango CO	81301
TELEPHONE 303-259-3027	Rust Tractor	108/P.O.NO.
JUD 20 1º 3 U L /	NUSC HACOU	

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE)	,		(PLEASE PRINT)	1		ĺ	_ u		R	EQUE	STED	/		7.	W			/	//// SAI	APLE TYP	E CODES	
Michael & Mai	the	M:	chael J. Matheson	۵ ا	COMPOSITE	8	SAMPLETYPE	NUMBER OF CONTAINERS	A	EQUE NALY	SES		?) ?)			//	/	//	/// w-	WATER	G – SLUDGE X – T – Travel Blank F – Field Blank	OTHER
CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	된	S	GRAB	SAM	NO NO NO NO		357		<u>3</u>	<u>/</u>	_	_	/	_	/	COMME	ITS	LABORATORY SA IDENTIFICATI NUMBER	AMPL?
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Sample 4 - 15ft	3-16-42	1530					5	1	1	1_							_				92035	11
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Envirotech Inc.

Underground Tank Testing • Site Assessment • Site Remediation

5796 U.S. HIGHWAY 64 - 3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615

September 28, 1992

Mr. Denny G. Foust Environmental Geologist State of New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410 FEB1 8 1993
OIL CON. DIV.

Re: Contaminated Soil Remediation

Dear Mr. Foust:

Rust Tractor, 1000 Troy King Road, Farmington, New Mexico requests that Envirotech receive contaminated soils from an underground storage tank leak clean up. Their consultant, Plateau Environmental Service, has provided the attached volatiles and semivolatiles analysis and Envirotech has analyzed for TCLP metals and TPH.

All analysis results are less than RCRA standards.

The underground storage tanks contained gasoline, diesel, and one contained used oil.

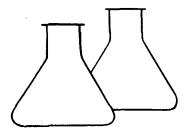
Envirotech requests authorization to receive this soil at our Hilltop, New Mexico facility for remediation.

Sincerely,

Morris D. Young

President

MDY/jmj 337J.DOC



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Plateau Env. Serv. Project #: 92228 Sample ID: Sample A 6' Date Reported: 09-28-92 Laboratory Number: 2560 Date Sampled: 09-10-92 Sample Matrix: Soil Date Received: 09-10-92 Preservative: Cool Date Analyzed: 09-28-92 Condition: Cool & Intact Analysis Needed: TPH

Concentration Limit
Parameter (mg/kg) (mg/kg)
Total Petroleum

Hydrocarbons

28,200

25.0

Method:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

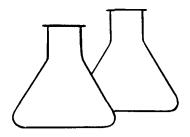
ND - Parameter not detected at the stated detection limit.

Comments:

RUST Tractor Farmington RUST 0054-001

<u>Ca fenendel</u> Analyst

Review



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401

PHONE: (505) 632-0615 • FAX: (505) 632-1865



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

OIL CON. DIV.)

Client:	Plateau Env. Serv.	Project #:	92228
Sample ID:	Sample B 17'	Date Reported:	09-28-92
Laboratory Number:	2561	Date Sampled:	09-10-92
Sample Matrix:	Soil	Date Received:	09-10-92
Preservative:	Cool	Date Analyzed:	09-28-92
Condition:	Cool & Intact	Analysis Needed.	mpu

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	91,400	125.0

Method:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

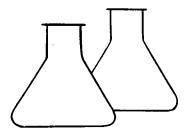
ND - Parameter not detected at the stated detection limit.

Comments: R

RUST Tractor RUST 0054-001

<u>Ca finendila</u> Analyst

Review Joung



Envirotech Labs

5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865



OIL CON. DIV., DIST. 3

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Plateau Env. Serv. Project #: 92228 Sample ID: Sample C 18' Date Reported: 09-28-92 Laboratory Number: 2562 Date Sampled: 09-10-92 Sample Matrix: Soil Date Received: 09-10-92 Preservative: 09-28-92 Cool Date Analyzed: Condition: Cool & Intact Analysis Needed: TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	720	5.0

Method:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

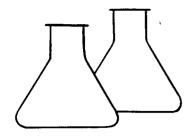
ND - Parameter not detected at the stated detection limit.

Comments:

RUST Tractor Farmington RUST 0054-001

<u>Ca finencleh</u> Analyst

Review



5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865



OIL CON. DIV. DIST. 3

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client: Plateau Environmental Project #: 92228 Sample ID: Sample 5 - 4 ft Date Reported: 09-17-92 Laboratory Number: Date Sampled: 2563 09-10-92 Sample Matrix: Date Received: Soil 09-10-92 Preservative: Cool Date Analyzed: 09-17-92 Condition: Cool & Intact Date Extracted: 09-15-92 Analysis Needed: TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
ARSENIC	ND	0.001	5.000
BARIUM	ND	0.1	100.0
CADMIUM	ND	0.001	1.000
CHROMIUM	ND	0.001	5.000
LEAD	ND	0.001	5.000
MERCURY	ND	0.002	0.200
SELENIUM	ND	0.001	1.000
SILVER	ND	0.01	5.00

Method:

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, Sept. 1986

Methods 7060A, 7080A, 7131A, 7191, 7470A, 7421, 7740, 7760A Analysis of Metals by GFAA and FLAA, SW-846, USEPA

Method 1311, Toxicity Characteristic Leaching Procedure SW-846, USEPA, Nov. 1990

ND - Parameter not detected at the stated detection limit.

Comments: Rust 0054-001, Rust Tractor - Farmington

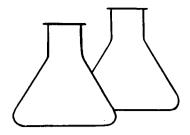
I. Coleman

5796 U.S. HIGHWAY 64-3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615



QUALITY ASSURANCE/QUALITY CONTROL

DOCUMENTATION



5796 US Highway 64-3014 • Farmington, New Mexico 87401. PHONE: (505) 632-0615 • FAX: (505) 632-1865



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS OIL CON. DIV. DIST. 3

Client:

Sample ID:

Laboratory Number: Sample Matrix:

Preservative:

Condition:

NA

Laboratory Blank

Soil

TPLB0928

Cool

Project #:

09-28-92 Date Reported:

Date Sampled: NA Date Received: NA

Date Analyzed:

09-28-92

Analysis Needed: TPH

Parameter

Total Petroleum Hydrocarbons

Concentration (mg/kg)

31.2

Det. Limit (mg/kg)

NA

5.0

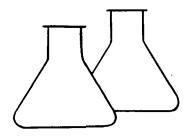
Method:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

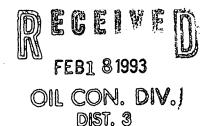
ND - Parameter not detected at the stated detection limit.

Comments:



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS - BLANKS

Client: NA Project #: NABlanks Date Reported: 09-17-92 Sample ID: Laboratory Number: NA Date Sampled: NA Sample Matrix: TCLP Extract Date Received: NAAnalysis Requested: TCLPDate Analyzed: 09-17-92 Condition: NA Date Extracted: 09-15-92

	Instrument	Extraction Sol.	_Det.
	Blank	Blank	Limit
Parameter	(mg/L)	(mg/L)	(mg/L)
	**		
ARSENIC	ND	ND	0.001
BARIUM	ND	ND	0.1
CADMIUM	ND	ND	0.001
CHROMIUM	ND	ND	0.001
LEAD	ND	ND	0.001
MERCURY	ND	ND	0.002
SELENIUM	ND	ND	0.001
SILVER	ND	ND	0.01

Method:

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, Sept. 1986

Methods 7060A, 7080A, 7131A, 7191, 7470A, 7421, 7740, 7760A Analysis of Metals by GFAA and FLAA, SW-846, USEPA

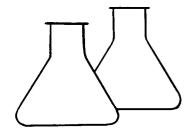
Method 1311, Toxicity Characteristic Leaching Procedure SW-846, USEPA, Nov. 1990

ND - Parameter not detected at the stated detection limit.

Comments:

nalvst

Review ()



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865



QUALITY ASSURANCE REPORT EPA METHOD 1311

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

TRACE METAL ANALYSIS - MATRIX SPIKE

OIL CON. DIV. DIST. 3

Client:	NA	Project #:	NA
Sample ID:	NA	Date Reported:	09-17-92
Laboratory Number:	NA	Date Sampled:	NA
Sample Matrix:	TCLP Extract	Date Received:	NA
Analysis Requested:	TCLP	Date Analyzed:	09-17-92
Condition:	NA	Date Extracted:	NA

	Spike Added	Sample Result	Spiked Sample Result	Percent
Parameter	(mg/L)	(mg/L)	(mg/L)	Recovery
				~~
ARSENIC	0.130	0.008	0.145	105.4
BARIUM	10.0	ND	10.1	101.0
CADMIUM	0.100	ND	0.105	105.0
CHROMIUM	0.100	0.043	0.142	99.0
LEAD	0.100	0.019	0.122	103.0
MERCURY	0.025	0.022	0.044	88.0
SELENIUM	0.130	ND	0.131	100.8
SILVER	1.00	ND	0.99	99.0

QA	ACCEPTANCE	CRITERIA:	Param	eter	Acceptanc	e Range	. %
			TCLP	Metals	80	- 120	

Method:

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, Sept. 1986

Methods 7060A, 7080A, 7131A, 7191, 7470A, 7421, 7740, 7760A Analysis of Metals by GFAA and FLAA, SW-846, USEPA

Method 1311, Toxicity Characteristic Leaching Procedure SW-846, USEPA, Nov. 1990

ND - Parameter not detected at the stated detection limit.

Comments:

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location											
RUST 0054-0	01		RUST Tra	actor -	Faminato	പ		-2	ANALYSIS/	PARAM	ETERS ,	92228		
Sampler: (Signature)	ı		RUST Tractor - Farmington Chain of Custody Tape No.					0						
Michall Mont						No. of Containers		m + 7,			į		Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number		Sample Matrix	Cont	18.1	977 01.0						
Sample A-6 ft	9-10-92		25 60	Soil			12	1500						
Sample B-17ft	9-10-92	1415	2561	1.7		/			·			}		
Sample C-18ft	9-10-92	1412	2562							<u> </u>	<u> </u>	<u></u>		
Sample 5-4ft	9-10-92	0845	2563	- ()	·	/								
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<u> </u>										ļ				
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M.L. Jak	1.1.			9-10-92	1500	Tony-	Th	stan					9/10/92	1500
Relinquished by: (Signature)	en v			1 10 10		eceivee by: (S	ignature)						1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7,000
Relinquished by: (Signature)					R	eceived by: (S	ignature)							
ha 1 1 1/2	<u> </u>			l	LL.						· · · · · · · · · · · · · · · · · · ·		<u> </u>	L

Michael Matheson Plateau Environmenta | Services 640 Main Ave, #202 Durango CO 81301 303-259-3027 Results: to above

ENVIROTECH INC.

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

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SLUDGE ANALYTICAL RESULTS

FEB1 8 1993
OIL CON. DIV.)
DIST. 3



2506 West Main Street Farmington, New Mexico 87401 Tel. (505) 326-4737

PECEIVED
FEB1 8 1993
OIL CON. DIV.,
DIST. 3

Randy Randlemon
Rust Tractor
1000 Troy King Road
Farmington, New Mexico 87401

25 January, 1993

Dear Mr. Randlemon,

On 5 January, 1993, one sludge sample was received at Inter-Mountain Laboratories - Farmington, New Mexico. The sample was identified as "Big Vat" from project Location "1000 Troy King Road". Analyses were performed to determine concentrations of the Hazardous Waste Characteristics (Corrosivity, Reactivity and Ignitability) and Toxicity Characteristic Leaching Procedure (TCLP) Semivolatiles and Metals.

Analyses were performed following protocol defined in the Federal Register, 40 CFR 261-302, June 29, 1990, and Test Methods for Evaluating Solid Waste, SW-846. No target analytes were found in the Semivolatile analysis above method detection limits. However, five non-target peaks and a hydrocarbon envelope were detected. Identification was attempted by comparison of mass spectral information to a library of 46,000 compounds. Barium, Chromium, and Lead were found at levels above the method detection limit but below regulatory limits.

Quality control analysis results are presented for your records and appear in a separate section. If there are any questions or comments regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Charles Ballek Laboratory Manager

IML - Farmington

cc: Plateau Environmental

RUST1549

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS

Client: **RUST TRACTOR** Sample ID: Big Vat Report Date: 01/20/93 Project ID: 1000 Troy King Rd. Date Sampled: 01/04/93 Laboratory ID: B931043 Date Received: 01/06/93 Sample Matrix: Sludge Date Extracted-TCLP: 01/06/93 Preservation: Cool Date Analyzed: 01/08/93 Condition: Intact Date Extracted-BNA: 01/08/93

Parameter	Analytical Result (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
	111(9: L)	(mg.r.)	(ing/e/
1,4-Dichlorobenzene	ND	0.2	7.5
Hexachloroethane	ND	0.2	3
Nitrobenzene	ND	0.2	2
Hexachloro-1,3-butadiene	ND	0.2	0.5
2,4,6-Trichlorophenol	ND	0.2	2
2,4,5-Trichlorophenol	ND	0.2	400
2,4-Dinitrotoluene	ND	0.2	0.13
Hexachlorobenzene	ND	0.2	0.13
Pentachlorophenol	ND	0.2	100
o-Cresol	ND	0.2	200 **
m & p-Cresol *	ND	0.2	200 **
Pyridine	ND	2	5

ND - Compound not detected at stated Detection Limit

- B Compound detected in Method Blank.
 - * Compounds coelute by GCMS.
 - ** Regulatory Limit of combined Cresols.



TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

RUST TRACTOR

Sample ID:

Big Vat

Laboratory ID: Sample Matrix:

B921043 Sludge Date Reported:

01/20/93

Date Sampled:

01/04/93

Date Analyzed:

01/08/93

	Retention		_
Parameter	Time(min.)	Concentration	Units
Hydrocarbon envelope	24 - 44		
Benzoic acid	15.00	21	mg/L
Unknown hydrocarbon	23.61	0.4	mg/L
Unknown hydrocarbon	26.94	0.8	mg/L
Unknown hydrocarbon	27.76	0.6	mg/L
Unknown hydrocarbon	29.89	0.5	mg/L

Unknown concentrations calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recoveries	%
2-Fluorophenol	44
Phenol-d6	48
Nitrobenzene-d5	81
2-Fluorobiphenyl	80
2,4,6-Tribromophenol	108
Terphenyl-d14	74



References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

1633 Terra Avenue Sheridan, Wyoming 82801

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS

Client:

Rust Tractor

Sample ID:

Big Vat

Lab ID:

1549/B931043/6067

Matrix:

Sludge

Preservation:

Cool/Intact

Report Date:

01/14/93

Date Sampled:

01/04/93

Date Received:

01/05/93

TCLP Extract:

01/07/93

Date Analyzed:

01/12/93

Parameter:	Analytical Result	Regulatory Level	Units
Arsenic	<0.2	5.0	mg/L
Barium	0.6	100	mg/L
Cadmium	<0.05	1.0	mg/L
Chromium	0.49	5.0	mg/L
Lead	0.2	5.0	mg/L
Mercury	<0.005	0.20	mg/L
Selenium	<0.2	1.0	mg/L
Silver	<0.1 N	5.0	mg/L

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V,

EPA Vol. 55, No. 126 June 29, 1990.

Method 6010A:

Inductively Coupled Plasma-Atomic Emission Spectroscopy, SW-846, Nov. 1990.

Method 7470A:

Mercury in Liquid Waste (Manual Cold Vapor Technique), SW-846, Nov. 1990.

Reviewed by:_

FEB1 8 1993
OIL CON. DIV.

RCRA CHARACTERISTICS

Client:

Rust Tractor

Sample Id:

Big Vat

Lab ld:

1549/B931043/6067

1549/B931043/60 Sludge

Matrix: Preservation:

Cool/Intact

Report Date:

Date Sampled:

Date Received:

01/14/93 01/04/93

ed: 01/05/93

Date Analyzed: 01/14/93

Parameter:	Analytical Results	(units)
Corrosivity *	13	pH in s.u.
Reactivity-CN	<0.1	mg/Kg of Waste
Reactivity-S	<0.1	mg/Kg of Waste
Ignitability	>140	F°

^{*}pH analyzed using test strip method.

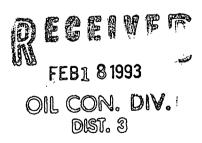
Section 7.3.3.2: Test Method to Determine Hydrogen Cyanide Released From Wastes. SW-846, Sept. 1986

Section 7.3.4.1: Test Method to Determine Hydrogen Sulfide Released From Wastes. SW-846, Sept. 1986.

Reviewed: FEB1 8 1993
OIL CON. DIV.
DIST. 3

910 Technology Boulevard, Suite B Bozeman, Montana 59715

QUALITY ASSURANCE / QUALITY CONTROL



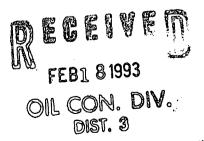
TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS METHOD BLANK ANALYSIS

Client: **RUST TRACTOR** Sample ID: Method Blank 01/20/93 Date Reported: Project ID: 1000 Troy King Rd. Date Sampled: NA **TMB - 8** NA Laboratory ID: Date Received: Sample Matrix: Water Date Extracted-TCLP: NA Preservation: Date Analyzed: 01/08/93 NA Condition: NA Date Extracted-BNA: 01/08/93

	Analytical	Detection		
Parameter	Result	Limit	Units	
		0.00	,	
1,4-Dichlorobenzene	ND	0.02	mg/L	
Hexachloroethane	ND	0.02	mg/L	
Nitrobenzene	ND	0.02	mg/L	
Hexachloro-1,3-butadiene	ND	0.02	mg/L	
2,4,6-Trichlorophenol	ND	0.02	mg/L	
2,4,5-Trichlorophenol	ND	0.02	mg/L	
2,4-Dinitrotoluene	ND	0.02	mg/L	
Hexachlorobenzene	ND	0.02	mg/L	
Pentachlorophenol	ND	0.02	mg/L	
o-Cresol	ND	0.02	mg/L	
m & p-Cresol *	ND	0.02	mg/L	
Pyridine	ND	0.2	mg/L	

ND - Compound not detected at stated Detection Limit.

* - Compounds coelute by GCMS.



910 Technology Boulevard, Suite B Bozeman, Montana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS METHOD BLANK ANALYSIS

Client:

RUST TRACTOR

Sample ID:

Method Blank

TMB - 8

Date Reported:

01/20/93

Laboratory ID:

Date Sampled:

NA

Sample Matrix:

Water

Date Analyzed:

01/08/93

F-000000000000000000000000000000000000		
F. C. C. C. C. C. C. C. C. C. C. C. C. C.		

No additional compounds found at reportable levels.

Unknown concentration calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

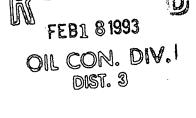
Surrogate Recoveries	. %
2-Fluorophenol	24
Phenol-d6	29
Nitrobenzene-d5	65
2-Fluorobiphenyl	. 62
2,4,6-Tribromophenol	52
Terphenyl-d14	60

References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Reviewed



NA

Condition:

Pyridine

01/08/93

mg/L

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS METHOD BLANK ANALYSIS

Client: RUST TRACTOR Sample ID: Method Blank Report Date: 01/20/93 1000 Troy King Rd. Project ID: Date Sampled: NA NA Laboratory ID: Blank - 3 Date Received: Sample Matrix: TCLP Extraction Fluid Date Extracted-TCLP: 01/06/93 Preservation: NA Date Analyzed: 01/08/93

Date Extracted-BNA:

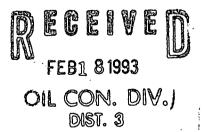
0.2

Analytical Detection Limit Result Units **Parameter** ND 0.02 1,4-Dichlorobenzene mg/L Hexachloroethane ND 0.02 mg/L Nitrobenzene ND 0.02 mg/L 0.02 Hexachloro-1,3-butadiene ND mg/L 2,4,6-Trichlorophenol ND 0.02 mg/L 0.02 2,4,5-Trichlorophenol ND mg/L ND 0.02 2,4-Dinitrotoluene mg/L ND 0.02 Hexachlorobenzene mg/L Pentachlorophenol ND 0.02 mg/L o-Cresol 0.02 ND mg/L m & p-Cresol * ND 0.02 mg/L

ND - Compound not detected at stated Detection Limit.

ND

* - Compounds coelute by GCMS.



TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS METHOD BLANK ANALYSIS

Client:

RUST TRACTOR

Sample ID:

Method Blank

Date Reported:

01/20/93

Laboratory ID:

Blank - 3

Date Sampled:

NA

Sample Matrix:

TCLP Extraction Fluid

Date Analyzed:

01/08/93

\mathbf{r}_{i}	

No additional compounds found at reportable levels.

Unknown concentration calculated assuming Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recoveries	%
2-Fluorophenol	. 38
Phenol-d6	36
Nitrobenzene-d5	63
2-Fluorobiphenyl	62
2,4,6-Tribromophenol	76
Terphenyl-d14	56

References:

Method 8270, Gas Chromatography/Mass Spectrometry for Semi-Volatile Organics, Test Methods for Evaluating Solid Wastes, United States Environmental Protection Agency, December 1987.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Analyst

Reviewed

FEB1 8 1993

JIL CON. DIV.
DIST. 3

1633 Terra Avenue Sheridan, Wyoming 82801

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS

Quality Control/Blank Analysis

Client:

Rust Tractor

Sample ID:

Blank 03

Lab ID:

6068

Matrix:

Fluid

Report Date: Date Analyzed: 01/14/93

01/12/93

Parameter:	Analytical Result	Units
Arsenic	<0.2	mg/L
Barium	<0.5	mg/L
Cadmium	<0.05	mg/L
Chromium	<0.05	mg/L
Lead	<0.2	mg/L
Mercury	<0.005	mg/L
Selenium	<0.2	mg/L
Silver	<0.1	mg/L

Method 6010A: Method 7470A: Inductively Coupled Plasma-Atomic Emission Spectroscopy, SW-846, Nov. 1990.

'470A: Mercury in Liquid Waste (Manual Cold Vapor Technique), SW-846, Nov. 1990.

Reviewed by:

PECEIVE D FEB1 8 1993

OIL CON. DIV.)
DIST. 3

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL SEMI-VOLATILE COMPOUNDS BLANK SPIKE SUMMARY

Client:

RUST TRACTOR

Sample ID:

Blank Spike

Date Reported: 01/20/93

Project ID:

1000 Troy King Rd.

01/20/93

Laboratory ID:

Date Sampled: NA

Sample Matrix:

TBS - 8

Date Received: NA

Preservation:

TCLP Extraction Fluid NA

Date Extracted: 01/08/93
Date Analyzed: 01/08/93

Condition:

NA

Parameter	Spike Added (ug/L)	Sample Concentration (ug/L)	Matrix Spike Concentration (ug/L)	Matrix Spike Recovery (%)
1,4-Dichlorobenzene	100	0	56	56
Hexachloroethane	100	0	53	53
Nitrobenzene	100	0	66	66
Hexachlorobutadiene	100	0	56	56
2,4,6-Trichlorophenol	100	0	62	62
2,4,5-Trichlorophenol	100	0	69	69
2,4-Dinitrotoluene	100	0	76	76
Hexachlorobenzene	100	0	73	73
Pentachlorophenol	100	0	69	69
o-Cresol	100	0	60	60
m,p-Cresol	100	0	48	48
Pyridine	100	0	40	40

All values are total nanograms.

Reference:

Method 8270, Semivolatile Organics - GC/MS, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, Vol. IB, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 126, June 29, 1990.

Reviewed

OIL CON. DIV.

DIST. 3

Analyst

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS

Quality Control/Matrix Spike

Client:

Rust Tractor

Sample ID:

Big Vat

Lab ID:

1549/B931043/6067

Date:

01/14/93



OIL CON. DIV.)
DIST. 3

Parameter:	Spiked Sample Result mg/L	Sample Result mg/L	Spike Added mg/L	Percent Spike Recovery		
Arsenic	2.4	<0.2	2.5	96.0		
Barium	2.2	0.5	2.0	85.0		
Cadmium	0.51	<0.05	0.50	102.0		
Chromium	1.39	0.46	1.00	93.0		
Lead	2.0	0.2	2.0	90.0		
Mercury	0.0094	<0.005	0.010	94.0		
Selenium	2.4	<0.2	2.5	96.0		
Silver*	0.3	<0.1	0.5	60.0		

^{*}Low recovery due to the precipitation of Silver with inorganic chlorides.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, EPA Vol. 55, No. 126 June 29, 1990.

Method 6010A:

Inductively Coupled Plasma-Atomic Emission Spectroscopy, SW-846, Nov. 1990.

Method 7470A:

Mercury in Liquid Waste (Manual Cold Vapor Technique), SW-846, Nov. 1990.

Laboratory Data Validation, Functional Guidelines for Evaluating Inorganics Analyses, USEPA, July 1988.

Reviewed by:

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS

Quality Control/Duplicate Analysis

Client:

Rust Tractor

Sample ID:

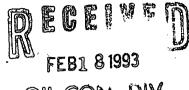
Big Vat

Lab ID:

1549/B931043/6067

Date:

01/14/93



OIL CON. DIV. VDIST. 3

Parameter:	Initial Sample Result mg/L	Second Sample Result mg/L	Relative Percent Difference
Arsenic	<0.2	<0.2	
Barium	0.6	0.6	
Cadmium	<0.05	<0.05	
Chromium	0.49	0.51	-4.0
Lead	0.2	0.2	•
Mercury	<0.005	<0.005	
Selenium	<0.2	<0.2	
Silver	<0.1 N	<0.1 N	

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V,

EPA Vol. 55, No. 126 June 29, 1990.

Method 6010A: Method 7470A: Inductively Coupled Plasma-Atomic Emission Spectroscopy, SW-846, Nov. 1990.

Mercury in Liquid Waste (Manual Cold Vapor Technique), SW-846, Nov. 1990.

Laboratory Data Validation, Functional Guidelines for Evaluating Inorganics Analyses, USEPA, July 1988.

Reviewed by:



CHAIN OF CUSTODY RECORD

Client/Project Name												_			
D. Bandon	Kust	1000	or 1000 Troy king Rd.					/ ANALYSES / PARAMETERS							
Sampler: (Signature)			Chain of	Custody.Tape	No.	•		ki i				Rem	arka		
		·		· · · · · · · · · · · · · · · · · · ·			\ ers	Zg	/						
Sample No./ Identification	Date	Time	Lab Numbe	r	Matrix		No. of Containers	TECP FIRE				This	Client	needs	
BigVat	1/4/93	9:00	1549	Slupe	B931	043	3	X				TCLP, TOPPICE Topital	TCLI	Metals	
35	- 77 77 - 7							-		 		TOUR	1/2/2/2/1	ecaani'd	
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				1/	~							Norm	al Tu	rn Time	
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									(S)	RA		WER			
				11								7 6			
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Janel Bando			1/5/93	2:40		w	TH.	ru					1440		
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UPS	<u> </u>	· I		16/93	10.30	Billie		Per.	ry				1/6/93	1030	
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)		Inter-M	lountain l	Laborat	tories,	Inc.								
1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	1714 Phillips C Gillette, Wyomi Telephone (30)	ing 82716	2506 West Main S Farmington, NM 8 Telephone (505) 3	7401 Boze	Technology Bh man, Montana phone (406) 58	a 59715	College	, Box 256 Station, ne (409)	TX 7784	5 Coll	ege Stat	ire Drive ion, TX 77845 409) 774-4999	054	45	

April 8, 1993

Mr. Richard Cheney, President Tierra Environmental Company, Inc 909 West Apache Farmington, New Mexico

APPROVAL TO ACCEPT HYDROCARBON CONTAMINATED SOILS AT THE TIERRE OCD PERMITTED LANDPARK FACILITY, FROM RUST TRACTOR:

Dear Richard:

This letter is to confirm the verbal approval I gave to Mr. Phil Noble of your company, regarding the above captioned subject. I reviewed the material cent to me on March 1, 1993 by Tierra. I provided a copy of the material to the Rezerdous & Radioactiva Materials Bureau as well.

The New Mexico Environment Department concurs with the New Mexico Oil Conservation Division, that the material contains no Hazardous Substances. Therefore, the New Mexico Environment Department has no objection to the material being brought to your OCD Permitted facility in San Juan County.

Sincerely,

Temis Mailler

Dannia McQuillan, Managar Ranadiation Beatlon Groundwater Protection/Remediation Bureau

OM: al

APRE 2 1993 OIL CON. MIL

Bruce King

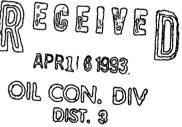
Min Laginosa alcoreter)

		
(REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxx
1.	RCRA Exempt: ☐ Non-Exempt: 🏋	4. Generator
1	Verbal Approval Received: Yes 💆 No □	l .
-		Fourway Construction
2.	Destination	5. Name of Originating Site
	Tierra Landfarm Crouch Mesa	Fourway Construction
3.	Address of Facility Operator	6. Name of Transporter
	909 West Apache, Farmington, NM	Fourway Construction
7.	Location of Material (Street Address or ULSTR)	8. State
	420 County Rd. 3100 San Juan County	New Mexico
9.	Check One	
	A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the G	enerator; one certificate per job.
	 All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status for Mexico Environment Department or other appropriate government agency; two certificates per job. 	
0	All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove	the material is non-hazardous
i	and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.	

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated as a result of diesel spill 3/26/93 Hauled



			•	
Estimated Volume			ered by the operator at the end of the haui):	24cv
SIGNATURE	Pluly C.	plete to the best of my knowledge a	ce President	DATE 4/16/93
TYPE OR PRINT NAME	Phillip C.	Nobis	TELEPHONE NO	325-0924
(This space for State Use) APPROVED BY	suy 9.	Fait TITLE	Goologist	DATE 4/21/93
APPROVED BY	nie Bon	TITLES	LeSagist	DATE 4/26/93
CONDITIONS OF APPROVAL,	IFANY: Fina	1 Approval	From Rosen s	7/10/93

PLATEAU ENVIRONMENTAL SERVICES, INC.

484 Turner Drive, Suite 200 E Durango, Colorado 81301 Business 303 / 259-3027 Fax 303 / 259-3028

April 7, 1993

Mr. Phillip Nobis
Tierra Environmental Company, Inc.
909 West Apache
Farmington, NM. 87401

RE: Four-Way Company Diesel Spill

Dear Phil,

At your request this letter is to provide documentation concerning the diesel spill at Four-Way Company in Aztec, New Mexico. On the morning of March 25, 1993 7:30 am I received a phone call from Four-Way indicating that they had a release of diesel from a D-8 dozer. I immediately dispatched to Aztec to provide consulting services and remediation services to Four-Way.

Upon arrival, at the Aztec yard, the sheriff and foreman for Four-Way were inspecting the D-8. Beneath the dozer a puddle of diesel had accumulated. Upon further inspection the fuel line was found to be deliberately cut. The diesel tank was empty and it was clear that the puddle of diesel was from the D-8. It is the policy of Four-way to fuel equipment when it arrives to the yard. The D-8 had been setting for about three weeks with a full tank. There is no doubt that the fluid on the ground was diesel and that it came from the D-8.

In addition a representative from your office visited the site and also verified that the spill was diesel.

Please call if you have any questions.

Sincerely,

Plateau Environmental Services

John E. Casey, P.E.

Project Manager

the management of the second section of the second section of the second section in THE STATE OF THE S TAN JUA CUBNIY SHERIF 'S OFFICE

OFFICHSEZINCIDENT REPORT

Occurrence Dates 03/24/93-03/25/93 Day: WEDNESDAY-THURSDAY Times 22:00-08:30

Atatus S SUSPENDED Closing Officers 000138 VINCENT.W

Location: 1556 US550, co 4 WAY YARD

ALLES CONTROLS DE CONTROLS DE CONTROLS DE LA VOLVED DE LA CONTROLS DE CONTROL DE CONTROLS

VICTIM-01: FOUR WAY CONSTRUCTION CO

1556 USS50/4000 LOMAS FARMINGTON, CO

Contact:

State: NM Zip: 87401 Phone: 505 334-3400.

REPORT/PARTY- TEMPLETON JOE

3605 SIERRA VISTA DR., FH State: NM Zip: 87401 Phone: Hair: Eye: Hgt: Antha 325-9242 Gdu/Juv: A

rich Eta Ųqt: FC Late

Business Name: FOUR WAY CONST.

1556 US550

Phone: 334-3400 AZTEC, NH 87410

WITHESS-01: CASEY JOHN E 484 TURNER DURANGO, CO

Phones State: CO /ip: Eye: 高速量率 Adu/Juv: A Hgt: Wgt: B3.d::

Business Name: PLATEAU ENVIROMENTAL

Phone: 303 259-3027

DOB: 04/17/59 Race: W Sex: H

DURANGO, CO

mentermonary and the contract of the contract

THV/VEHICLE-O License: UNK930832 State: Type: F Expires:

Years 60 Makes CAT Model: DB Styles CAT Color: YEL

Identifiers:

Vins 46A29072 Disposition: MO IMPOUND

Areas COMMERCIAL Actions: VANDALIZED

ON 03-25-97 AT APPROX. 0030 MRS. I WAS DISPATCHED TO.#1556 U.S.550 ON A

- Balance Berneral Communication on a contract to 一种有限投资的工艺Mile Control of Section on the section of the secti

REPORTED VAHOALIGH.

GROW ABRIVAL I WAS TOLD BY MR. JOE TEMPLETON THAT PERSON(S) UNKNOWN HAD CUT A FUEL LIFE ON A BUILDOZER CAUSING APPROX. 210 GALLONS OF FUEL TO LEAK OUT ONTO THE GROUND, SOMETIME DETMEEN 2200 HRS. ON 03-24-93 AND THIS MORNING.

T INSTITUTED THE FURL LIFE, A REINFORCED RUPBER HOSE. IT APPEARED TO MAYE DEEM COT. INTRECTION OF THE AREA AROUND THE BULLDOZER DID MOT SHOW ANY PHOT PRINTS LEADING TO OR FROM IT OTHER THAN MR. TEMPLETON'S AND HIS HELPER'S.

Day Jyan County Sheriff's Office 105 S. Oliver, Acted, New Mexico 82410 Roger Lagator, Shoriff (505)374 6107

Reprogramment VINCENT, W. Muschess 000138 Dates 03/25/93 (imes 08:30 Dates 03/26/93 Times 10:24 Dates 03/26/93 Times 12:54

WHEEMSEZINCIDENT REPORT

ACCITIONAL INFORMATION

Reported Dates 03/25/93 Time: 08:30 Case: 93-000832 Page: 2 Code: 001 MI Chime: MISCELLANEOUS Class: 420200

AT THIS TIME IT IS UNKNOWN IF THE LINE WAS OUT DELIBERATELY BY SOMEONE SOMETIME IN THE PAST AND THE LINE FINALLY RUPTURED OR IF IT MAD BEEN DAMAGED FOR SOME TIME AND FINALLY RUPTURED.

MR. TEMMPLETON TOLD ME THE BULLDOZER MAD BEEN SITTING IN THE YARD FOR ABOUT A MONTH.

HE FURTHER ADVISED THE COST OF THE LOST FUEL WAS APPROX. \$252.00. LINE WOULD COST APPROX. \$15.00 TO REPLACE IT.

MR. JOHN CASEY WITH PLATEAU ENVIRONMENTAL SERVICES, ADVISED THE COST OF CLEAN UP WOULD BE APPROX. \$5000.00.

San Juan County Sheriff's Office jos S. Oliver, Aztec, New Moxico 87410

THE PERFORMANCE OF THE COLUMN TO THE COLUMN Roger Lagater, Sherit (505)334-6107

Repertung Wifficers VINCENT, # Numbers 000138 Dates 03/25/93 Times 08:30 figured by: NORRISJ Appendig Official NORRIS, J.

Mumbers 314 Date: 03/26/93 Tame: 10:24

Humbers 000314 Date: 03/26/93 Time: 12:54

PLATEAU ENVIRONMENTAL SERVICES, INC.

484 Turner Drive, Suite 200 E Durango, Colorado 81301 Business 303 / 259-3027 Fax 303 / 259-3028

April 14, 1993

Mr. Phillip Nobis
Tierra Environmental Company, Inc.
909 West Apache
Farmington, NM. 87401

RE: Four-Way Company Diesel Spill

PEGEIVED

APR21 1993

OIL CON. DIV

(DIST. 3

Dear Phil,

Attached are analytical results for soil samples taken during remediation of the diesel spill at Four-Way Company in Aztec, New Mexico. The diesel contaminated soils were disposed of at tour facility on March 22, 1993. Sample #1 was a random sample taken from excavated and stockpiled soils ready for disposal. Sample #2 was taken form soils beneath the diesel spill after the contaminated soils were excavated. Sample #3 was taken form diesel saturated soils which were excavated and stockpiled for disposal.

Please call if you have any questions.

Sincerely,

Plateau Environmental Services

John E. Casey, P.E.

Project Manager

Plateau Environmental Services

Case Narrative

On March 25, 1993, a set of three soil samples was submitted to Inter-Mountain Laboratories - Farmington for analysis. The samples were received intact and were designated "4 - Way Co.". Analyses for Total Petroleum Hydrocarbons (TPH) were performed on the samples as per the accompanying chain of custody form. A fourth sample was submitted for RCRA characteristics, reactivity (CN and S), corrosivity, and ignitability, and TCLP - Pb analysis. These parameters were run by our Sheridan and Bozeman laboratories, respectively. Reports from these labs are enclosed.

The samples were extracted by Method 3550, "Sonication Extraction", with 1,1,2,2-trichlorotrifluoroethane (Freon) as the extraction solvent. Analysis was by Method 418.1, "Total Recoverable Petroleum Hydrocarbons", using a Beckman Acculab 10 Infrared Spectrophotometer. Petroleum hydrocarbons were detected in two of the samples at levels above the stated detection limits, as indicated in the enclosed report.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in <u>Test Methods for Evaluation of Solid Waste</u>, SW-846, USEPA, 1986 and <u>Methods for Chemical Analysis of Water and Wastes</u>, EPA-600/4-79-020, USEPA, 1983.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely

Dr. Denise A. Bohemier, Organic Lab Supervisor

PES2292

TOTAL PETROLEUM HYDROCARBONS EPA Method 418.1

Plateau Environmental

Project ID:

Four Way Co Inc/Aztec Yard

Sample Matrix: Preservative:

Condition:

Soil

Cool Intact Report Date:

03/26/93

Date Sampled:

03/25/93

Date Received: 03/25/93

Date Extracted: 03/26/93

Date Analyzed: 03/26/93

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
0 1 1/4			
Sample #1	2292	302	49
Sample #2	2293	ND	12
Sample #3	2294	53,300	3,900
	Į.		

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:

Juny B

2506 W. Mein Street Farmington, New Mexico 87401

Quality Control Report TOTAL PETROLEUM HYDROCARBONS EPA Method 418.1

Method Blank Analysis

Project ID: Sample Matrix:

Four Way Co Inc

Soil

Report Date:

03/26/93

Date Extracted:

03/26/93

Date Analyzed:

03/26/93

Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
MB34054	ŅD	2.50

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

2508 W. Main Street Farmington, New Mexico 87401

Quality Control Report TOTAL PETROLEUM HYDROCARBONS EPA Method 418.1

Matrix Spike Analysis

Project ID:

Four Way Co Inc.

Sample Matrix:

Soil

Report Date:

03/26/93

Date Extracted:

03/26/93

Date Analyzed:

03/26/93

Lab ID	Spiked Sample Conc. (mg/kg)	Unspiked Sample Conc. (mg/kg)	Spike Added (mg/kg)	Percent Recovery
MBSPK34054	9.6	ND	10.0	96%

Acceptance Limits: 64 - 124%

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

2506 W. Main Street Farmington, New Mexico 87401

Quality Control Report TOTAL PETROLEUM HYDROCARBONS EPA Method 418.1

Duplicate Analysis

Project ID: Sample ID:

Four Way Co Inc

Sample #3

Sample Matrix:

Soil

Report Date:

03/26/93

Date Extracted:

03/26/93

Date Analyzed:

03/26/93

Lab ID	Duplicate Conc. (mg/kg)	Sample Conc. (mg/kg)	Percent Difference	Acceptance Limit
2294Dup	50,100	53,300	6%	< 30%

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

RCRA CHARACTERISTICS

Client:

Lab Id:

Matrix:

Plateau Environmental

Sample Id:

Sample #4

22

Soil

Condition:

2295/6162

Cool/Intact

Date Reported

3/31/93

Date Sampled:

3/25/93

Date Received:

3/25/93

Date Analyzed:

3/30/93

Parameter:	Analytical Result	(units)
Corrosivity	7.4	pH in s.u.
Reactivity-CN	<0.1	mg/Kg of Wast
Reactivity-S	<1	mg/Kg of Wast
Ignitability*	Will not ignite	F°

^{*}Sample will not ignite when exposed to open flame.

Section 7.3.3.2: Test Method to Determine Hydrogen Cyanide Released From Wastes. SW-846, Sept. 1986

Section 7.3.4.1: Test Method to Determine Hydrogen Sulfide Released From Wastes. SW-846, Sept. 1986.

Reviewed: Rwm

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS

CLIENT:

PLATEAU ENVIRONMENTAL

PROJECT:

Aztec Yard

Sample ID:

Sample #4

Laboratory ID:

F932295 / B933371

Sample Matrix:

Soil

Soil

Preservative: Condition:

Cool Intact Report Date:

04/06/93

Date Sampled:

03/25/93

Date Received:

Date Extracted:

03/25/93 03/31/93

Analyte	Concentration	Detection Limit	Regulatory Level	Units
Arsenic	·	0.2	5.0	mg / L
Barium		5.0	100	mg / L
Cadmium		0.05	1.0	mg / L
Chromium	·	0.05	5.0	mg / L
Lead	ND	0.2	5.0	mg / L
Mercury		0.005	0.2	mg / L
Selenium	·	0.2	1.0	mg / L
Silver		0.05	5.0	mg / L

ND - Parameter not detected at stated Detection Limit.

REFERENCES:

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, EPA Vol. 55, No. 126, June 29, 1990.

"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW - 846, United States Environmental Protection Agency, November, 1986.

- Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals
- Method 6010: Inductively Coupled Plasma Atomic Emission Spectroscopy
- Method 7470: Mercury in Liquid Waste (Manual Cold Vapor Technique)

Reviewed Reviewed

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS QUALITY CONTROL REPORT - METHOD BLANK

CLIENT:

PLATEAU ENVIRONMENTAL

PROJECT:

Aztec Yard

Laboratory ID: Sample Matrix:

MB - 21 Sand Report Date:

04/06/93

Date Extracted:

03/31/93

Analyte	Concentration	Detection Limit	Regulatory Level	Units
Arsenic	ND	0.2	5.0	mg / L
Barium	ND	5.0	100	mg / L
Cadmium	ND .	0.05	1.0	mg / L
Chromium	ND	0.05	5.0	mg / L
Lead	ND	0.2	5.0	mg / L
Selenium	ND	0.2	1.0	mg / L
Silver	ND	0.05	5.0	mg / L

ND - Parameter Not Detected at stated reporting level

REFERENCES:

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, EPA Vol. 55, No. 126, June 29, 1990.

"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW - 846, United States Environmental Protection Agency, November, 1986.

- Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals
- Method 6010: Inductively Coupled Plasma Atomic Emission Spectroscopy

Reviewed

TOXICITY CHARATERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS QUALITY CONTROL REPORT - MATRIX SPIKE

CLIENT:

PLATEAU ENVIRONMENTAL

PROJECT:

Aztec Yard

Sample ID:

Sample #4

Laboratory ID:

F932295 / B933371

Sample Matrix: Preservative:

Condition:

Soil

Cool Intact Report Date: Date Sampled:

04/06/93

Date Received:

03/25/93 03/25/93

Date Extracted:

03/31/93

Analyte	Spiked Sample Concentration	Unspiked Sample Concentration	Spike Amount	Percent Recovery	Units
Arsenic					mg / L
Barium					mg / L
Cadmium					mg / L
Chromium					mg / L
Lead	1.7	ND	2.0	85	mg / L
Mercury				·	mg / L
Selenium			·		mg / L
Silver					mg / L

ND - Parameter not detected at established Detection Limit.

REFERENCES:

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, EPA Vol. 55, No. 126, June 29, 1990.

"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW - 846, United States Environmental Protection Agency, November, 1986.

- Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals
- Method 6010: Inductively Coupled Plasma Atomic Emission Spectroscopy
- Method 7470: Mercury in Liquid Waste (Manual Cold Vapor Technique)

Reviewed

2506 W. Main Street Farmington, New Mexico 87401

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATIONS QUALITY CONTROL REPORT - DUPLICATE ANALYSIS

CLIENT:

PLATEAU ENVIRONMENTAL

PROJECT:

Aztec Yard

Sample ID:

Condition:

Sample #4

Laboratory ID:

F932295 / B933371

Sample Matrix: Preservative:

Soil Cool Intact

22937 B93337

Report Date: Date Sampled: 04/06/93

Date Received:

03/25/93

Date Extracted:

03/31/93

Analyte	Original Concentration	Duplicate Concentration	Relative Percent Difference	Detection Limit	Units
Arsenic				0.2	mg / L
Banum				0.5	mg / L
Cadmium				0.05	mg / L
Chromium				0.05	mg / L
Lead	ND	ND	NC	0.2	mg/L_
Mercury			·	0.005	mg/L
Selenium				0.2	mg / L
Silver				0.05	mg / L

ND - Parameter Not Detected at stated detection level.

NC - Noncalculable RPD due to value(s) less than DL.

REFERENCES:

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register,

40 CFR 261-302, Part V, EPA Vol. 55, No. 126, June 29, 1990.

"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW - 846, United States Environmental Protection Agency, November, 1986.

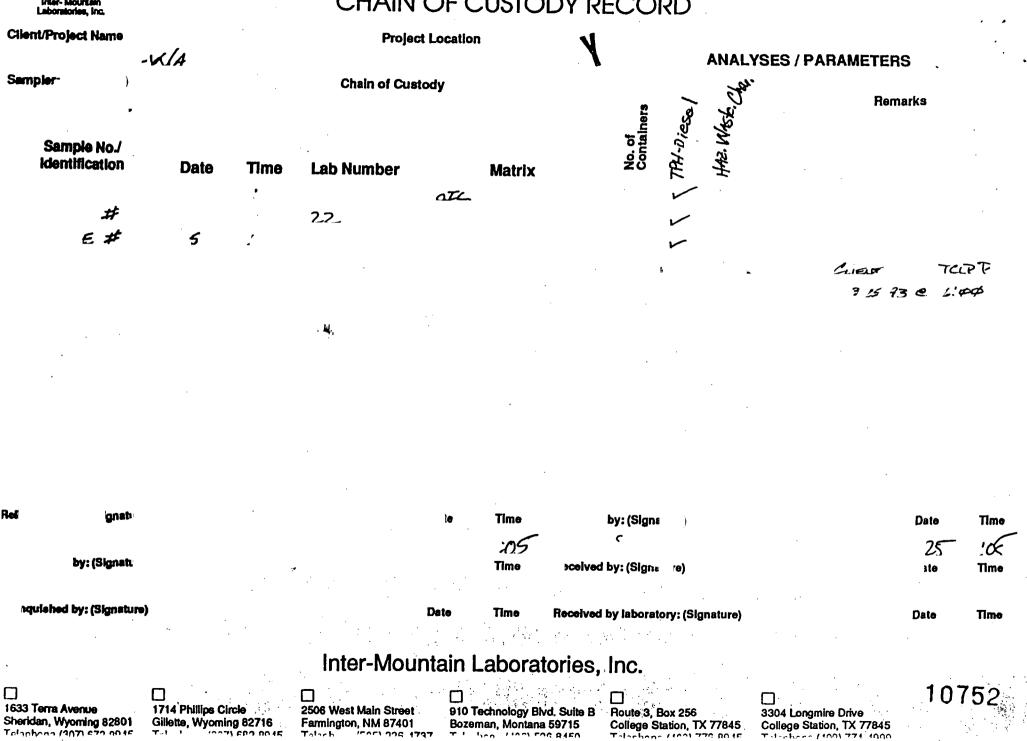
- Method 3010: Acid Digestion of Aqueous Samples and Extracts for Total Metals
- Method 6010: Inductively Coupled Plasma Atomic Emission Spectroscopy
- Method 7470: Mercury in Liquid Waste (Manual Cold Vapor Technique)





דמוחחתים ומחדו בדי מחוב

CHAIN OF CUSTODY RECORD



ורחרו חום נדקד



State of New Mexico

ENVIRONMENT DEPARTMENT

Harold Runnels Bulding 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOSA SECRETARY

RON CURRY
DEPUTY SECRETARY

April 6, 1993

Mr. Phil Nobis, Landfarm Operator Tierra Environmental Farmington, NM

Dear Mr. Nobis:

SUBJECT: Letter of Authorization

OLCON Dr APRI 2 1993 DEGETVER

The New Mexico Environment Department hereby authorizes transport and temporary storage of contaminated soil at Tierra Environmental. The Hazardous and Radioactive Materials Bureau allows the shipment of the material to the landfarm providing the following conditions are met:

- 1. The contaminated soil will be stored in an isolated area on the landfarm.
- 2. The contaminated soil will be stored on plastic (10 ml liner), and bermed (18 inches).
- 3. The contaminated soil will be kept slightly moist to keep the soil from blowing.
- 4. The landfarm facility will run a TCLP analysis for characterization of hazardous waste contaminants.
- 5. The operator will dispose of the waste as soon as possible in an appropriate manner based on the analytical results.

If you have any questions, please feel free to contact me at (505)827-4358 or Michael Le Scouarnec at (505) 827-4308.

Sincerely,

Benito J. Garcia, Chief

Hazardous and Radioactive Materials Bureau

cc: Roger Anderson, OCD
John Geddie, Office of the Secretary
Edward Horst, RCRA Enforcement

<u>(XXXXXXX</u>						
3						
te						
nd D						
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.						
Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous						
1						

All transporters must certify the wastes delivered are only those consigned for transport

BRIEF DESCRIPTION OF THE MATERIAL:

JP-4 Contaminated soils as a result of a vehicle accident (Tanker $\widehat{\text{roll}}$ over) Lab reports to follow



			DIST.	. 9
Estimated Volume3	,000 cy	Known Volume (to be entered by the operator at	t the end of the haul):	су
hereby certify that the inform	nation above is true and complete t	o the best of my knowledge and belief.	,	111100
SIGNATURE	Phillip C. N.	TITLE Vice Presid	ent DATE	4/16/93
TYPE OR PRINT NAME	Phillip C. No	ois	TELEPHONE NO325-09	<u> </u>
(This space for State Use)				·.
APPROVED BY		TITLE	DATE _	
APPROVED BY		TITLE	DATE	
CONDITIONS OF APPROVAL.	FANY: Did not	pass TCLP for	or benzane o	in initia,



State of New Mexico ENVIRONMENT DEPARTMENT

Harold Runnels Bulding
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

JUDITH M. ESPINOSA SECRETARY

RON CURRY
DEPUTY SECRETARY

April 6, 1993

Mr. Phil Nobis, Landfarm Operator Tierra Environmental Farmington, NM

Dear Mr. Nobis:

SUBJECT: Letter of Authorization

The New Mexico Environment Department hereby authorizes transport and temporary storage of contaminated soil at Tierra Environmental. The Hazardous and Radioactive Materials Bureau allows the shipment of the material to the landfarm providing the following conditions are met:

- 1. The contaminated soil will be stored in an isolated area on the landfarm.
- 2. The contaminated soil will be stored on plastic (10 ml liner), and bermed (18 inches).
- 3. The contaminated soil will be kept slightly moist to keep the soil from blowing.
- 4. The landfarm facility will run a TCLP analysis for characterization of hazardous waste contaminants.
- 5. The operator will dispose of the waste as soon as possible in an appropriate manner based on the analytical results.

If you have any questions, please feel free to contact me at (505)827-4358 or Michael Le Scournec at (505) 827-4308.

Sincerely,

Benito J. Garcia, Chief

Hazardous and Radioactive Materials Bureau

John Geddie, Office of the Secretary
Edward Horst, RCRA Enforcement

Bozeman, Montana 57715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TENTATIVELY IDENTIFIED COMPOUNDS

Client:

TIERRA ENVIRONMENTAL

Sample ID:

1,2,3 (Composite)

Laboratory ID; Sample Matrix: B933567

Soil

Date Reported:

Date Sampled:

04/13/93

04/07/93

Date Analyzed:

04/13/93

Tentative Retention Concentration	
Identification Concentration (Concentration)	Unite
Unknown hydrocarbon 11.96 1	mg/l.
Toluene 14.07 11	mg/L
Ethylbenzene 16.62 1.1	mg/L
m,p-Xylene 16.80 5.5	mg/L
o-Xylene 17.42 1.9	mg/L

Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	ng the party particles and management and an articles and a second and a second and a second and a second and a
1,2-Dichloroethane-d4	104	
Toluene-d8	101	
Bromofluorobenzene	94	

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Third Edition, November 1986.

Toxicity Characteristic Leaching Procedure, Final Rule, Federal Register, 40 CFR 261-302, Part V, Environmental Protection Agency, Vol. 55, No. 128, June 29, 1990.

Rule Warf

1160 Research Drive Bozeman, Mantana 59715

TOXICITY CHARACTERISTIC LEACHING PROCEDURE HSL VOLATILE COMPOUNDS

Client:	TIERRA ENVIRONMENTAL		
Sample ID:	1,2,3 (Composite)	Date Reported:	04/13/93
Project ID:	Hwy 64 - East Blanco	Date Sampled:	04/07/93
Laboratory ID:	B933567	Date Received:	04/08/93
Sample Matrix:	Soil	Date Extracted TCLP:	04/12/93
Preservation:	Cool	Date Analyzed:	04/13/93
Condition:	Intact	Date Extracted VOA:	04/13/93

Parameter	Analytigal Result (mg/li)	Paterdana Lindon Ones	Regulatory Umlt mg/L)
1,1-Dichloroethene	ND	0.2	0.7
1,2-Dichloroethane	ND	0.2	0.5
2-Butanone	ND	1.0	200
8enzene	1.1	0.2	0.5
Carbon Tetrachtoride	ND	0.2	0.5
Chlorobenzene	ND	0.2	100
Chloroform	NĎ	0.2	6
Tetrachloroethene	ND	0.2	0.7
Trichloroethene	ND	0.2	0.5
Vinyl Chloride	ND	0.2	0.2

ND - Compound not detected at stated Detection Limit.

J - Moots identification criteria, below Detection Limit.

B - Compound detected in Method Blank.



ENVIRONMENT DEPARTMENT

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOŜA SECRETARY

RON CURRY DEPUTY SECRETARY

April 28, 1993

Mr. R. Griffer Onsite Technologies Limited P.O. Box 2606 Farmington, New Mexico 87499 OIL CON. DIV. \ DIST. 3

Contaminated Soil - Tierra Environmental Subject: (INCIDENT #1423)

Dear Mr. Griffer;

I am in receipt of your April 26, 1993 fax reflecting analysis of the contaminated soil which is stock piled at the TIERRA ENVIRONMENTAL facility and is the result of the cleanup activities from a wreck on US 64 on April 6, 1993.

Based on the analysis presented in your April 26, 1993, fax it appears as through this material is not hazardous waste and therefore does not fall within RCRA jurisdiction.

If there are any questions please contact me at (505) 827-4308.

Sincerely,

Edward L. Horst Program Manager

Hazardous and Radioactive Materials Bureau

ELH:sl

Farth Graves, Dist. Manager

√Roger Anderson, OCD Glenn Saums, SWQB

file

Approval to Spread.
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	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxx				
1.	RCRA Exempt: Non-Exempt:	4. Generator				
	Verbal Approval Received: Yes No D PCM Roger Anderson 5/3/93	Steere Tanklines				
2.	Destination ()	5. Name of Originating Site				
<u> </u>	Tierra Landfarm Crouch Mesa	M.P. 84 Hwy 64				
3.	Address of Facility Operator	6. Name of Transporter				
	909 West Apache, Farmington, NM	Doug Foutz/Diamond D				
7.	Location of Material (Street Address or ULSTR)	8. State				
<u> </u>	420 County Rd. 3100 San Juan County	New Mexico				
9.	9. <u>Check One</u>					
0,	A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.					
1	B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.					
	C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.					

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

JP-4 Contaminated soils as a result of a vehicle accident (Tanker roll over) Lab reports to follow

Estimated Volume3_	.000 .	y Known Volume (to	be entered by the operator at t	the end of the haul):	3600	су
Thereby certify that the information of the second state of the second sec	ition above is true and com	plete to the best of my knowle	edge and belief.		DATE	73/93
TYPE OR PRINT NAME	Phillip C.	Nobis		_ TELEPHONE NO	325-092	4
(This space for State Use) APPROVED BY	emy 2.	Fourt TI	TLE Goole	sist	DATE _S	76/93
APPROVED BY		TI	TLE		DATE	
CONDITIONS OF APPROVAL, I	FANY: firmed	hy Roser	Anders	on 5/6,	193	2',30PM



State of New Mexico

ENVIRONMENT DEPARTMENT

Harold Runnels Bulding 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505).827-2850

JUDITH M. ESPINOSA

RON CURRY
DEPUTY SECRETARY

April 6, 1993

Mr. Phil Nobis, Landfarm Operator Tierra Environmental Farmington, NM

Dear Mr. Nobis:

SUBJECT: Letter of Authorization

The New Mexico Environment Department hereby authorizes transport and temporary storage of contaminated soil at Tierra Environmental. The Hazardous and Radioactive Materials Bureau allows the shipment of the material to the landfarm providing the following conditions are met:

- 1. The contaminated soil will be stored in an isolated area on the landfarm.
- 2. The contaminated soil will be stored on plastic (10 ml liner), and bermed (18 inches).
- 3. The contaminated soil will be kept slightly moist to keep the soil from blowing.
- 4. The landfarm facility will run a TCLP analysis for characterization of hazardous waste contaminants.
- 5. The operator will dispose of the waste as soon as possible in an appropriate manner based on the analytical results.

If you have any questions, please feel free to contact me at (505)827-4358 or Michael Le Scouarnec at (505) 827-4308.

Sincerely,

Benito J. Garcia, Chief

Hazardous and Radioactive Materials Bureau

cc: Roger Anderson, OCD
John Geddie, Office of the Secretary

Edward Horst, RCRA Enforcement



CLIENT I.D....:

DATE SAMPLED..... 04/15/93 TIME SAMPLED....: 15:00

WORK DESCRIPTION ... : 0068 SPT COMPOSITE

CORE LABORATORIES

LABORATORY TESTS RESULTS

04/21/93

CONTICHER ONS ITE TECHNOLOGIES LINITED. ATTN: DAVE CON

LABORATORY 1.D...: 930934-0001

DATE RECEIVED 04/16/93

TIME RECEIVED 11:30

REMARKS SAMPLED BY: T.W.

TEST DESCRIBITION	FINAL RESULT	CIMITS/POILLITIEN	UNITE OF REASURE	JEST HETHOU	OATE	TECH
Metals Digest on Extracted Sample	N/A			EPA 50-846 3010	N/A	N/A
Zero Needspace Extraction-Volatile	Completed			EPA SW-846 1311	04/19/93	SEB
•						
·						

1733 WORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408

PAGE: 2

708



CORE LABORATORIES

LABORATORY TERTS RESULTS

JOS MANBERY \$30934 ATTN: DAVE COX

CLIENT 1.D....:

DATE SAMPLED: 04/15/93

TIME SAMPLED 15:00

WORK DESCRIPTION ...: 0068 SPT COMPOSITE

LABORATORY I.D...: 930934-0001 DATE RECEIVED: 04/16/93

TIME RECEIVED: 11:30

REMARKS..... SAMPLED BY: T.W.

EST DESCRIPTION	FINAL RESULT	LIMITETION	UNITS OF MEASURE	TEST NETHOD	DATE	YECHN
CLP Semivolatiles	N/A	1		EPA SW-846 8270	N/A	N/A
CLP Valutiles	{	*10		EPA SW-846 8260	04/21/93	BJH
8enzene_	<50	50	ug/L	EPA 64-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SV-846 8260	ł	
Chi orobenzene	450	50 \$0	lug/L	EPA 54-846 8260	1	
Chioroform 2-Butanone	<50 <100	100	lug/L lug/L	EPA SW-846 8260 EPA SW-846 8260		
Irichlorgethene	₹ 50	50	ug/L	EPA SW-846 8260	}	
Vinyl chloride	<50	50	ug/L	EPA EN-846 8260		
1,2-Dichlorosthane	<50	50	ug/L	EPA 14-846 8260		
Tetrachioroethene	<50	50	Ug/L	EPA 54-846 8260		
1,1-Dichloroethene	50	50	ug/L	EPA 84-846 8260	ļ	
extraction - TCLP Semivolatiles	N/A			EPA 8W-846 3520	N/A	H/A
less Jar Extraction for Metals	N/A			EPA 5W-846 1311	N/A	N/A
Slass Jar Extraction-Semivolatiles	N/A			EPA SU-846 1311	N/A	N/A
Arsenic (AS), extractable TCLP	N/A	0.05	mg/L	EPA 54-846 6010	N/A	N/A
Harlum (Ba), extractable TCLP	N/A	0.05	mg/L	EPA 54-846 6010	H/A	N/A
Cadmium (Cd), extractable TCLP	N/A	0.05	rg/L	EPA SN-846 6010	N/A	H/A
Chromium (Cr), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Lead (Fb), extractable TCLP	N/A	0.05	ng/L	EPA \$W-846 6010	N/A	N/A
Selenium (Se), extractable TCLP	N/A	0.05	ma/L	EPA SH-846 6010	W/A	H/A
Si(ver (Ag), extractable TCLP	W/A	0.05	mg/L	EPA 5W-846 6010	K/A	N/A
Lammability Potential Screening	Negative		+ or -	ASTM 04982-89	04/16/93	RAD
anide, Reactive (CN)	N/A	5	mg/kg	EPA SW-846 7.3.3.2	N/A	N/A
prrosivity by pH	N/A	0.10	pH units	EPA SW-846 9040	N/A	N/A
lfide, Reactive	N/A	10	mg/kg	EPA SW-846 7.3.4.2	M/A	N/A
reury (Hg), extractable, TCLP	N/A	0.002	mg/L	EPA 5W-846 7470	M/A	N/A

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 189-2673

PAGE:1



CORE LABORATORIES

2 T 8 3 T LABORATORY RESULTS

04/21/93

JOE HUMBER: 930934 STRETCHER: ONSITE TECHNOLOGIES INTED. ATTN: DAVE CON

CLIENT 1.D..... DATE SAMPLED.....: 04/15/93 TIME SAMPLED...... 15:00 WORK DESCRIPTION...: 0048 SPT COMPOSITE

LABORATORY I.D...: 930934-0001 DATE RECEIVED ...: 04/16/93

TIME RECEIVED: 11:30

REMARKS..... SAMPLED BY: T.W.

JEST DESCRIPTION	FINAL RESULT	LIMITSTEDILLTICA	UNITS OF HEASURE	TEST HETHOD	DATE	Jech
TCLP Semivolatiles	N/A	1		EPA \$V-846 8270	N/A	N/A
TCLP Valatiles		*10		EPA SW-846 8260	04/21/93	BJK
Senzene	<50	50	ug/L	EPA SV-846 8260		
Carbon Tetrachloride	<50	50	us/i.	EPA SV-846 8260	1	
Chilarobenzene	<50	50	ug/L	EPA SW-846 8260		
Chloroform	<50	50	ug/L	EPA SN-846 8260]	
2-Butanone	<100	100	ug/L	EPA SN-846 8260		
Trichloroethana	<50	50	un/L	1 122 - 123	1	
Vinyt chloride	<50	50	, w.	EPA SW-846 8260	Ť	
1,2-Dichloroethane			LIG/L	EPA SW-846 8260	.1	
Tetrachloroethene	<50	50	ug/L	EPA SW-846 8260	1	
	<50	50	ug/L	EPA \$4-846 8260	1	
1,1-Dichlorpethane	<50	50	ug/L	EPA 84-846 8260		
Extraction - TCLP Semivolatiles	N/A			EPA 94-846 3520	N/A	K/A
Blass Jan Extraction for Metals	N/A			EPA \$4-846 1311	H/A	N/A
Glass Jar Extraction-Semivolatiles	N/A			EPA SU-846 1311	N/A	H/A
Arsenic (As), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	K/A
Barium (Ba), extractable TCLP	N/A	0.05	mg/L	EPA SM-846 6010	N/A	N/A
Cadmium (Cd), extractable TCLP	N/A	0.05	ng/L	EPA SU-846 6010	N/A	N/A
Chromium (Cr), extractable TCLP	H/A	0.05	mg/L	EPA \$4-846 6010	N/A	H/A
Lead (Pb), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Selenium (Se), extractable TCLP	N/A	0.05	ma/L	EPA SN-846 6010	N/A	N/A
Hilver (Ag), extractable TCLP	M/A	0,05	mg/L	EPA 5W-846 6010	N/A	N/A
lammability Potential Screening	Negative]	+ or -	ASTM 04982-89	04/16/93	RAD
yanide, Reactive (CN)	N/A	5	mg/kg	EPA SW-646 7.3.3,2	N/A	N/A
corresivity by pH	H/A	0.10	pH units	EPA SH-846 9040	N/A	N/A
ulfide, Reactive	M/A	10	mg/kg	EPA SW-846 7.3.4.2	M/A	N/A
ercury (Hg), extractable, TCLP	N/A	0.002	mg/L	EPA SU-846 7470	W/A	N/A

1733 HORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (\$12),289-2673

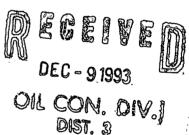
	·				
REQUEST FOR APF L TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
1. RCRA Exempt: □ Non-cxempt: ☆	. Generator				
Verbal Approval Received: Yes ☑ No ☐	Steer Tank Line				
2. Destination	5. Name of Originating Site				
Tierra Crouch Mesa Land Farm	MP 73 N.M. Hwy. 64				
3. Address of Facility Operator	6. Name of Transporter				
909 West Apache, Farmington, NM 87401	Steer Tank Lines				
7. Location of Material (Street Address or ULSTR)	8. State				
MP 73, N.M. Hwy. 64, Blanco, San Juan County	New Mexico				
9. Check One					
A. All requests for approval to accept diffield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.					
D B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New					
Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous					
and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.					

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with JP-8 fuel as a result of tanker accident rollover and subsequent spill involving approximately 1,000 gallons.

Blanco School



DIST. 3

		Dis CC	17. 3 OIV.]
Estimated Volume 800		be entered by the operator at the end of the	haull:cv
SIGNATURE	true and complete to the best of My know	Vice President	DATE 10-13-93
TYPE OR PRINT NAME Phill	lip C. Nobis	TELEPHO	DNE NO. (505) 325-0924
(This space for State Use) APPROVED BY Derry	2. Fourt	TLE Geolog 13t	DATE 12/9/93
APPROVED BY XXIII	Brown_T	TLE Geologist	DATE 12/13/53
CONDITIONS OF APPROVAL, IF ANY:	Note page 5	ignitability	RECEINED DEC1 41993
			OIL CON. DIV

	·				
REQUEST FOR APP _ TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
1. √RCRA Exempt: □ Non-⊏xempt: □	4. Generator				
Verbal Approval Received: Yes ☑ No □	Steer Tank Line				
2. Destination	5. Name of Originating Site				
Tierra Crouch Mesa Land Farm	MP 73 N.M. Hwy. 64				
3. Address of Facility Operator	6. Name of Transporter				
909 West Apache, Farmington, NM 87401	Steer Taņk Lines				
7. Location of Material (Street Address or ULSTR)	8. State				
MP 73, N.M. Hwy. 64, Blanco, San Juan County	New Mexico				
9. <u>Check One</u>					
A. All requests for approval to accept diffield exempt wastes will be accompanied by a certification of waste, from	the Generator; one certificate per job.				
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste s					
Mexico Environment Department or other appropriate government agency; two certificates per job.					

C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with JP-8 fuel as a result of tanker accident rollover and subsequent spill involving approximately 1,000 gallons.



Estimated Volume			be entered by the operator at t	he end of the haul);	cv
I hereby certify that the inform	ation above by true and	complete to the best of My know	Vice President		DATE 10-13-93
TYPE OR PRINT NAME	Phillip C.	Nobis		_ TELEPHONE NO	(505) 325-0924
(This space for State Use) APPROVED BY	my G.	Fault TI	TLE <u>Geologis</u>	st	DATE <u>12/9/93</u>
APPROVED BY		Т	TLE		DATE
CONDITIONS OF APPROVAL.	IF ANY: Note	page 5 19ni	tabily		

Originating



TIERRA ENVIRONMENTAL CORPORATION

Site: (Include Name, Section, Township, Range, 1/4, etc.)

CORFORATE OFFICE 6846 S. Canton, Suits 100 Tuke, OK 74126 918-496-3200

RECIONAL OFFICE 909 W. Apecha Parmington, NM 87401 505-325-0924

CERTIFICATE (OF WASTE	STATUS
NON-EXEMPT	OILFIELD	WASTE

New Mexico		54; Bianco, Jan Duan County,
Source: Tanker Jet Fuel		nd resulting spill of JP-8
Destination: Tie	crea Environmental Cor Crouch Mesa Land SE 1/4, Section 2 NMPM, San Juan County,	dfarm Facility 2, Township 29 North, Range 12 West
I Gregory Musq	• • • • • • • • • • • • • • • • • • • •	representative
for <u>Steera Tani</u>	k Lines	
The appropriate d	locumentation is hereto	attached,
Letter from	LP Analysis etals y, Ignitability, Renotivi m Out of State Regulate ertify that there has be als stored / used at the	
Signature Admir	ABBEL to Safe	
Date 12/8/9		
1		



State of New Mexico ENVIRONMENT DEPARTMENT

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOSA SECRETARY

> RON CURRY DEPUTY SECRETARY

October 13, 1993

Mr. Phil Nobis Tierra Environmental Corporation 909 W. Apache Farmington, New Mexico 87502

RE: STEER TANK LINES ACCIDENT BLANCO, NEW MEXICO

Dear Mr. Nobis:

The New Mexico Environment Department is in receipt of your October 13, 1993, letter concerning the handling of approximately 500 cubic yards of soil contaminated with JP-8 fuel. It is our understanding that this soil contamination was a result of a trucking accident that occurred on October 12, 1993.

Review of your letter has been completed and the New Mexico Hazardous and Radioactivo Materials Bureau (MRME) grants permission for Tierra Environmental Corporation to receive the JP-8 fuel contaminated soil at their facility under the conditions stipulated in Tierra Environmental Corporation's letter. HRMB does require that all efforts to isolated this material from further contaminating the environment and to insure protection to human health and safety be made, until such time as this material has been determined not to be regulated as hazardous waste.

Once results from the sampling and analytical work has been completed and received, HRMB is requesting Tierra Environmental Corporation provide a copy of the results to them.

If there are any questions please contact me at 827-4308.

Sincerely,

Edward L. Horst/Program Manager RCRA Inspection/Enforcement Section

cc: Roger Anderson, OCD

2506 W. Main Street Farmington, New Mexico 87401

December 3, 1993

Tierra Environmental 909 West Apache Farmiington, NM 87401

Dear Dan:

On November 22, 1993, Inter-Mountain Laboratories - Farmington received a soil sample, labelled "Blanco - J8". The sample were logged in, as per the accompanying chain of custody form, requesting Ignitability. Analysis was done by our Sheridan, WY facility.

Results for the sample are included in this analytical package. If you should have any questions regarding the enclosed reports, feel free to call.

Sincerely,

Dr. Denise A. Bohemier Organic Lab Supervisor

2506 W. Main Street Farmington, New Mexico 87401

WASTE OIL CHARACTERIZATION

CLIENT:

TIERRA ENVIRONMENTAL

Project:

Blanco - J8

Sample ID:

Blanco - J8

Laboratory ID:

4241

Sample Matrix:

Soil

Report Date:

12/03/93

Preservative:

None

Date Sampled:

11/22/93

Condition:

Intact

Date Received:

11/22/93

Parameter	Result	Units	Regulatory Limit
Ignitability	> 140	°F	must exceed 100

COMMENTS:

REFERENCE:

Method 1010: Pensky Martens Closed Cup Method for Determining Ignitability

Reviewed

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name		-		Proje	ct Location	1		7	7					,	· ·
Tierra Eny	ironmer	ntal	·							ANA	LYSES	S/PAF	RAMETERS	\$ ·	,a
Sampler: (Signature)	. //	, ,	Chair	of Cus	stody Tape				/_		7	7	Part		
Wan Has	m Var	ry H			•		. UU	M =	19	/	/		Rema		
Sample No./ Identification	Date	Time	Lab Nun	nber	- (Matrix	. " U	No. of E	TSNI FIOM						
BLANCO-J8	11-21-3	1:30	4241		te	Joll		1							
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											<u> </u>				
Belinquished by: (Signature)					Date	Time	Received	by: (Sign	ature	//	/			Date /) .
Wan Le	une	~			11-22-3	1:30	1 hi	ind	fly	the			•	11/23/93	13:30
Relinquished by: (Signature)					Date	Time	Macewed	by: (Sign	ature)					/ Date	Time
										•					
Relinquished by: (Signature)	l degar				Date	Time	Received	by labor	etory: (S	lgnature)			Date	Time
			Inter	-Moi	untain l	Labora	tories.	Inc.							
1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	1714 Phillips C Gillette, Wyomi Telephone (30)	ing 82716	2506 West M Farmington, I Telephone (5	ain Stree NM 8740	et 1160 1 Boze	Research Dr man, Montan phone (406) 5	a 59715	11183 S College	Station,	TX 77845 776-894	5 Coll		re Drive on, TX 77845 09) 774-4999	163	82



PRIORITY POLLUTANTS / AROMATIC VOLATILE ORGANICS

Attn: Cindy Gray

Date:

10/27/93

Company:

Steere Tank Lines c/o On Site Technologies

Lab ID: Sample ID: 1300 #0642

Address: 3005 Northridge, Ste.F City, State: Farmington, NM 87499

Job No.

4-1038

Project Name:

Steere Tank Lines / Blanco Job No. 4-1038

Project Location:

Initial Composite

Sampled by:

GL

Date: Date: 10/18/93 10/27/93 Time:

1100

Analyzed by: Sample Matrix:

DC Soil

Aromatic Volatile Organics

Component	* *Measured Concentration mg/kg								
Panana.		6.4							
Benzene		6.4							
Toluene		254.4							
Chlorobenzene		<i>25.5</i>							
Ethylbenzene	• .	115.1							
m,p-Xylene		246.0							
o-Xylene		121.4							
1,3-Dichlorobenzene		50.6							
1,4-Dichlororbenzene		59.4							
1,2-Dichlorobenzene		6.5							
	TOTAL	885.3 mg/kg							

ND - Not Detectable

** - Method Detection Limit, 2.0 ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:

ON SITE TECHNOLOGIES LIMITED

CHAIN OF CUSTODY RECORD

Date: _____(C/1 = 2 - 2)

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Page		of/		_

Nº 1300

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

													.,				
Purchas	se Order No.:	Reference No.:			0	Name							Title			·	
	Name STRAY				RT	Company											
	Company		Dept.		I 등 등	Mailing	Addre	ss									
SEND INVOICE TO	Address				RESULTS TO	City, S	tate, Zij	0									
	City, State, Zip					Teleph	Telephone No. Telefax No.										
Special Instructions:					ANALYSIS REQUESTED												
					er of iners		/	/	/	$\overline{/}$	/	/	$\overline{/}$		$\overline{/}$	/	///
Sampler:					Number of Containers							/ / /					
	SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES			<i>)</i> (Rem (m	marks natrix)
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Relinquished by: Date/Time				Rece	ived by:	~~							Date/Tin	<u>ne</u>			
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Method	of Shipment:				Rush		1	5 Worki	ng Days	10	Working	Days	Samp	oling Loc	ation:		}
Authoriz	zed hv		Date														
Adillonz	(Client Signature Must Acco	mpany Request)]												
Distribution: White - On Site Yellow - LAB					Pink – S	Sampler	Golder	arod – Cl	ient				L				



TOTAL PETROLEUM HYDROCARBONS

Attn:

Cindy Gray

Date:

10/27/93

Company: Red Willow c/o On Site Technologies

Lab ID:

1296

Address:

Sample No.

#0640

City, State: Farmington, NM 87499

3005 Northridge Ste. F

Job No.

4-1038

Project Name:

Steere Tank Lines / Blanco Job No. 4-1038

Project Location:

Tierra Environmental - Blanco Berm Composite

Sampled by:

TW

Date:

10/14/93 Time:

1115

Analyzed by:

DC

Date:

10/15/93

Type of Sample:

Soil

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Steere Tank Lines / Blanco Job No. 4-1038	
0640-1296	Tierra Environmental - Blanco Berm Comp.	. 56 ppm wt.

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/27/53 Date:

TECHNOLOGIES LIMITED

CHAIN OF CUSTODY RECORD

	1		1	
Page .		of	<u></u>	•

No

1296

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

																
Purchas	se Order No.:	Reference No.:			و ا	Name					·		Title	<u>. </u>		·
111	Name 🦸			· · · · · · · · · · · · · · · · · · ·	RT	Compa	any									
SEND INVOICE TO	Company January Faller of	- STECLE	Dept.		RESULTS TO	Mailing	Addre	ss								
SE	Address			;	RESI	City, S	tate, Zi	р								
_	City, State, Zip] "-	Teleph	one No).				Т	elefax	No.		
Special	Instructions:					ANALYSIS REQUESTED										
	I wa white				er of iners									/ / .		
Sample	r.				Number of Containers		/ .X/	/ ***/	3/,	\\			/	/ /	/ /	
	SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES				3/1	3/3		//	/				Remarks (matrix)
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			D. 1.	11: 12.2	1		}									
Authoria	zed by: (Client Signature <u>Must</u> Accom	npany Request)	_ Date	111 / P	1	-										
		21.10		Vollow LAD				CI					<u> </u>			



CORE LABORATORIES ANALYTICAL REPORT

> Job Number: 932469 Prepared For:

ONSITE TECHNOLOGIES LIMITED DAVE COX 657 W. MAPLE FARMINGTON, NM 87401

Date: 10/26/93

Name: Chip Meador

Title: Regional Manager

CORE LABORATORIES

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408



LABORATORY

TESTS

RESULTS

10/26/93

JOB NUMBER: 932469

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D..... 0640-1298 DATE SAMPLED....: 10/14/93 TIME SAMPLED....: 11:15

DATE RECEIVED...: 10/15/93 TIME RECEIVED...: 10:00

WORK DESCRIPTION...: 0640-1298

LABORATORY I.D...: 932469-0001

REMARKS..... SAMPLED BY: T.W.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
TCLP Semivolatiles		*1		EPA SW-846 8270	10/22/93	GEF
1,4-Dichlorobenzene	<10	10	lug/L	EPA SW-846 8270		
2,4-Dinitrotoluene	<10	10	ug/L	EPA SW-846 8270		
Kexach Lorobenzene	<10	10	ug/L	EPA SW-846 8270		
Kexachlorobutadiene	<10	10	ug/L	EPA SW-846 8270		
Hexachloroethane	<10	10	ug/L	EPA SW-846 8270		
Nitrobenzene	<10	10	ug/L	EPA SW-846 8270		
Pentachlorophenol	<50	50	ug/L	EPA SW-846 8270		
2,4,5-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270		
2,4,6-Trichtorophenol	<10	10	ug/L	EPA SW-846 8270	1	
Pyridine	<10	10	lug/L	EPA SW-846 8270	1	
Cresols (Total)	<30	30	ug/L	EPA SW-846 8270		
TCLP Volatiles		*10		EPA SW-846 8260	10/22/93	ВЈН
ßenzene	<50	50	ug/L	EPA SW-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260		
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260		
Chloroform	<50	50	ug/L	EPA SW-846 8260	ŀ	
2-Butanone	<100	100	ug/L	EPA SW-846 8260	1	
Trichloroethene	< 50	50	ug/L	EPA SW-846 8260	l	
Vinyl chloride	<40	40	ug/L	EPA SW-846 8260		
1,2-Dichloroethane	< 50	50	ug/L	EPA SW-846 8260		
Tetrachloroethene	<50	50	ug/L	EPA SW-846 8260	i	
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 3520	10/20/93	SEB
Glass Jar Extraction for Metals	Completed	ļ		EPA SW-846 1311	10/18/93	RAD
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	10/18/93	RAD
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Barium (Ba), extractable TCLP	1.30	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Lead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Selenium (Se), extractable TCLP	0.06	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM



LABORATORY

TESTS RESULTS

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D...... 0640-1298 DATE SAMPLED.....: 10/14/93 TIME SAMPLED....: 11:15

WORK DESCRIPTION...: 0640-1298

DATE RECEIVED...: 10/15/93 TIME RECEIVED...: 10:00

LABORATORY I.D...: 932469-0001

REMARKS..... SAMPLED BY: T.W.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Silver (Ag), extractable TCLP	0.06	0.05	mg/L	EPA SW-846 6010	10/22/93	JEM
Flammability Potential Screening	Negative		+ or -	ASTM D4982-89	10/19/93	DC
Corrosivity by pH	7.9	0.1	pH units	EPA SW-846 9045	10/19/93	GCC
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	10/22/93	JJP
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	10/18/93	СН
Zero Headspace Extraction-Volatile	Completed			EPA SW-846 1311	10/18/93	RAD
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CORPUS CHRISTI, TX 78408

(512) 289-2673

OB NUMBER:	932469			erection or acceptance of						
		CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANAL	YSIS		DUPL	ICATES	REFERENC	E STANDARDS		MATRIX SPIKE	S
	ANALYSIS SUB-TYPE	ANALYSIS	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
ARAMETER:Fla EPORTING LIM	mmability F HT/DF:	Potential Scr UNITS:+ or			NALYZED:10/19 RENCE :ASTN		1	1	QC BATCH N	UMBER:9476 CHNICIAN:D
UPLICATE	MD	932467-1	Positive	Positive	0					
ARAMETER:COR		/ pH UNITS:pH u			NALYZED:10/19 RENCE :EPA S		1		QC BATCH N	UMBER:94772 Chnician:go
TANDARD	ICV CCV MD	1,81,16 1,81,16 932469-1	6.98 6.99 7.88	7.91	0	7.00 7.00	100			
		extractable, 02 UNITS:mg/L	(\$10.00 to \$10.00 to \$1.00 to		IALYZED:10/22 RENCE :EPA S	a i distributa di Paris di Par		l		J UMBER:94786 CHNICIAN:J.
TANDARD PIKE	MB RS MS MD	DI H20 WP1085 932467-1 932467-1	<0.002 0.021 0.052 <0.002	<0.002	NC	0.020	105	<0.002	0.050	104
ARAMETER:Ars EPORTING LIM	enic (As), LT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	IALYZED:10/22 ENCE :EPA S	2/93 13:27 5W-846 6010	1		QC BATCH N	UMBER:94787 CHN1CIAN:JE
TANDARD TANDARD PIKE	MB CCV ICV MS MD	3010 86080 9C19N 932467-001 932467-001	<0.05 4.98 0.98 0.48 <0.05	<0.05	NC	5.00 1.00	100 98	<0.05	0.50	96
ARAMETER:SIL EPORTING LIM	ver (Ag), e IT/DF: 0.05	extractable To UNITS:mg/L			I IALYZED:10/22 ENCE :EPA S			J	QC BATCH NI	.1 JMBER:94787 CHNICIAN:JE
TANDARD TANDARD PIKE	MB CCV ICV MS MD	3010 86080 QC-7 932467-001 932467-001	<0.05 4.85 0.98 1.87 <0.05	<0.05	NC	5.00 1.00	97 98	<0.05	2.00	94
		xtractable T UNITS:mg/L			ALYZED:10/22 ENCE :EPA S			I	QC BATCH N	I JMBER:94787 CHNICIAN:JE
TANDARD TANDARD PIKE	MB CCV ICV MS MD	3010 86080 QC-7 932467-001 932467-001	<0.05 5.00 1.00 1.01 0.53	0.53	0	5.00 1.00	100	0.53	0.50	96

PAGE:3



<u>da Cidana da M</u> ili									ac actions and an		
UB NUMBER:	932469	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAV	E COX			
	ANA	LYSIS		DUPL	ICATES	REFERENC	E STANDARDS	MATRIX SPIKES			
NALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	
ARAMETER:(EPORTING L	admium (Cd), IMIT/DF: 0.0	extractable 5 UNITS:mg/L	TCLP		NALYZED:10/2 RENCE :EPA					UMBER:9478 CHNICIAN:J	
LANK	мв	3010	<0.05			T					
TANDARD	CCV	B6080	5.03	ł	1	5.00	101		1	1	
TANDARD	ICV	QC19N	1.01	i		1.00	101	1	0.50	1	
PIKE JPLICATE	MS MD	932467-001 932467-001	0.53 <0.05	<0.05	NC NC	ì		<0.05	0.50	106	
DELICATE	IND	932487-001	\ \0.03	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	NC						
		, extractable			NALYZED:10/2		orana kusto-ng sada Kabupatèntah Pada		QC BATCH N	angrahananangan barawasa	
EPORTING L	IMIT/DF: 0.0	5 UNITS:mg/L		METHOD REFE	RENCE :EPA	SW-846 6010			TE	CHNICIAN:J	
LANK	мв	3010	<0.05			Υ					
TANDARD	ccv	B6080	5.05	Ì	Ì	5.00	101	1	j	Ì	
TANDARD	ICV	QC19N	1.02		ł	1.00	102			1	
IKE	MS	932467-001	0.49					<0.05	0.50	98	
JPLICATE	MD	932467-001	<0.05	<0.05	NC		<u> </u>	J			
ARAMETER: L EPORTING L	ead (Pb), ex IMIT/DF: 0.0	tractable TCL 5 UNITS:mg/L	P		NALYZED:10/2 RENCE :EPA		1		QC BATCH N	UMBER:9478 CHNICIAN:J	
. A LIST	1										
	MB	3010	<0.05	i				İ	1		
TANDARD	CCV	B6080	5.02]		5.00	100				
TANDARD TANDARD	CCV	B6080 QC19N	5.02 1.00			5.00 1.00	100 100	<0.05	0.50	102	
LANK TANDARD TANDARD PIKE UPLICATE	CCV	B6080	5.02	<0.05	NC			<0.05	0.50	102	
TANDARD TANDARD PIKE UPLICATE ARAMETER:S	CCV ICV MS MD	B6080 QC19N 932467-001 932467-001	5.02 1.00 0.51 <0.05	I DATE/TIME A	NALYZED:10/2	1.00		<0.05	QC BATCH N	UMBER:9478	
TANDARD TANDARD PIKE UPLICATE ARAMETER:S	CCV ICV MS MD	B6080 QC19N 932467-001 932467-001	5.02 1.00 0.51 <0.05	I DATE/TIME A		1.00		<0.05	QC BATCH N		
TANDARD TANDARD PIKE UPLICATE ARAMETER:S EPORTING:L LANK	CCV ICV MS MD Setenium (Se) IMIT/DF: 0.0	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L	5.02 1.00 0.51 <0.05 TCLP	I DATE/TIME A	NALYZED:10/2	1.00 2/93 13:27 5W-846 6010	100	<0.05	QC BATCH N	UMBER:9478	
TANDARD TANDARD PIKE JPLICATE ARAMETER:S EPORTING:L LANK TANDARD	CCV ICV MS MD Setenium (Se) IMIT/DF: 0.0	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080	5.02 1.00 0.51 <0.05 TCLP	I DATE/TIME A	NALYZED:10/2	1.00 2/93 13:27 5W-846 6010 5.00	99	<0.05	QC BATCH N	UMBER:9478	
TANDARD TANDARD PIKE JPLICATE ARAMETER:S EPORTING:L LANK TANDARD TANDARD	CCV ICV MS MD Setenium (Se) IMIT/DF: 0.0 MB CCV ICV	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00	I DATE/TIME A	NALYZED:10/2	1.00 2/93 13:27 5W-846 6010	100		QC BATCH N	UMBER:9478 CHNICIAN:	
TANDARD TANDARD PIKE UPLICATE ARAMETER:S EPORTING:L LANK TANDARD TANDARD PIKE	CCV ICV MS MD Setenium (Se) IMIT/DF: 0.0	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080	5.02 1.00 0.51 <0.05 TCLP	I DATE/TIME A	NALYZED:10/2	1.00 2/93 13:27 5W-846 6010 5.00	99	<0.05	QC BATCH N	UMBER:9478	
ANDARD ANDARD ANDARD ARAMETER:S PORTING:I ANK ANDARD ANDARD ANDARD	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
ANDARD ANDARD PIKE IPLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD PIKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9470 CHNICIAN:	
ANDARD ANDARD IKE PLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD IKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:947	
ANDARD ANDARD IKE PLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD IKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9470 CHNICIAN:	
ANDARD ANDARD PIKE IPLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD PIKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
ANDARD ANDARD IKE PLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD IKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
ANDARD ANDARD ANDARD ARAMETER:S PORTING:I ANK ANDARD ANDARD ANDARD	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
TANDARD TANDARD PIKE UPLICATE ARAMETER:S EPORTING I	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
TANDARD TANDARD PIKE UPLICATE ARAMETER:S EPORTING:L LANK TANDARD TANDARD PIKE	CCV ICV MS MD MD Getenium (Se) IMIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:9478 CHNICIAN:	
TANDARD TANDARD PIKE JPLICATE ARAMETER:S EPORTING:L LANK TANDARD TANDARD PIKE	CCV ICV MS MD MD MIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:947	
ANDARD ANDARD ANDARD ARAMETER:S PORTING:I ANK ANDARD ANDARD ANDARD	CCV ICV MS MD MD MIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:947 CHNICIAN:	
ANDARD ANDARD IKE PLICATE RAMETER:S PORTING:I ANK ANDARD ANDARD IKE	CCV ICV MS MD MD MIT/DF: 0.0 MB CCV ICV MS	B6080 QC19N 932467-001 932467-001 , extractable 5 UNITS:mg/L 3010 B6080 QC19N 932467-001	5.02 1.00 0.51 <0.05 TCLP <0.05 4.95 1.00 0.56	DATE/TIME A METHOD REFE	NALYZED: 10/2 RENCE : EPA	1.00 2/93 13:27 5W-846 6010 5.00	99		QC BATCH N	UMBER:947 CHNICIAN:	

(512) 289-2673

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408



QUALITY ASSURANCE REPORT

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:33 METHOD: EPA SW-846 8270

QC NUMBER:947927

TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I D	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	LINITS OF MEASUR
		 		ANALIZED TALUE	 	
1,4-Dichlorobenzene	MB	10/20/93	1 1	<10	10	ug/l
2,4-Dinitrotoluene	МВ	10/20/93	1.	<10	10	ug/l
Hexachlorobenzene Hexachlorobutadiene	MB	10/20/93	1 1	<10	10	ug/l
Hexachloroputadiene Hexachloroethane	MB MB	10/20/93	1 1	<10	10	ug/l
Nitrobenzene	MB	10/20/93 10/20/93	1 1	<10 <10	10	ug/l ug/l
Pentachlorophenol	MB	10/20/93	1	<50	50	ug/l
2,4,5-Trichlorophenol	МВ	10/20/93	l i	<10	10	ug/l
2,4,6-Trichlorophenol	МВ	10/20/93	i	<10	10	ug/l
Pyridine	MB	10/20/93	i	<10	10	ug/l
Cresols (Total)	МВ	10/20/93	1	<30	30	ug/L
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TCLP SEMIVOLATILES

CORE LABORATORIES

ASSURANCE QUALITY REPORT

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:33 METHOD: EPA SW-846 8270

QC NUMBER:947927

TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
2-Fluorophenol	RS	B285.86.13	1	220	200	110	10	ug/l
Phenol-d6	RS	B285.86.13	1 1	230	200	115	10	ug/l
Nitrobenzene-d5	RS	B285.86.13	1	119	100	119	10	ug/l
2-Fluorobiphenyl	RS	B285.86.13	1 1	120	100	120	10	ug/l
2,4,6-Tribromophenol	RS	8285.86.13	1 1	220	200	110	10	ug/l
Terphenyl-d14	RS	8285.86.13	1	110	100	110	10	ug/l
1,4-Dichlorobenzene	RS	B285.86.13	l i	110	100	110	10	ug/l
2,4-Dinitrotoluene	RS	B285.86.13	i	110	100	110	10	ug/l
Hexachlorobenzene	RS	B285.86.13	l i	80	100	80	10	ug/l
Hexachlorobutadiene	RS	B285.86.13	i	120	100	120	10	ug/l
Hexachloroethane	RS	B285.86.13	i	110	100	110	10	ug/l
litrobenzene	RS	B285.86.13	i	116	100	116	10	ug/t ug/t
Pentachlorophenol	RS	B285.86.13	l i	90	100	90	50	ug/l
2,4,5-Trichlorophenol	RS	B285.86.13	1 1	120	100	120	10	ug/t ug/t
2,4,6-Trichlorophenol	RS	B285.86.13	1	120	100	120	10	ug/l ug/l
Pyridine	RS .	8285.86.13		120	100	120	10	
Cresols (Total)	RS	B285.86.13	1 1	340	300	113	30	ug/l
Liesots (locat)	lk2	10203.00.13	'	340	300	113	30	ug/L



TCLP SEMIVOLATILES

CORE LABORATORIES

QUALITY ASSURANCE REPORT

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:33 METHOD: EPA SW-846 8270 QC NUMBER:947927

EST	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	ORIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
DESCRIPTION	SUB-TYPE	I. D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY	LIMITS	MEASURE
?-Fluorophenol	МВ	932467-00	1	70	0	200	35	10	ug/l
·	ss	932467-1	1	70	l 0	200	35	10	ug/l
	ss	932467-2	1	120	0	200	60	10	ug/l
	ss	932469-1] 1	60	0	200	30	10	ug/l
henol-d6	МВ	932467-00	1	110	1 0	200	55	10	ug/l
	ss	932467-1	1	120	0	200	60	10	ug/l
	ss	932467-2	1	140	l o	200	70	10	ug/l
	ss	932469-1	1	90	١٥	200	45	10	ug/l
litrobenzene-d5	МВ	932467-00	1	60	0	100	60	10	ug/l
	ss	932467-1	1	70	0	100	70	10	ug/l
	SS	932467-2	1 1	70	Ŏ	100	70	10	ug/l
	ss	932469-1	1	60	0	100	60	10	ug/l
?-Fluorobiphenyl	МВ	932467-00	1	50	Ö	100	50	10	ug/l
· · ·	ss	932467-1	1	70	o	100	70	10	ug/l
	ss	932467-2	1	80	Ō	100	80	10	ug/l
	ss	932469-1	1	50	0	100	50	10	ug/l
,4,6-Tribromophenol	МВ	932467-00	1 1	120	lo	200	60	10	ug/l
	ss	932467-1	1	150	Ó	200	75	10	ug/l
	SS	932467-2	1 1	140	0	200	70	10	ug/l
	ss	932469-1	1	100	lo	200	50	10	ug/l
erphenyl-d14	МВ	932467-00	1	60	0	100	60	10	ug/l
	SS	932467-1	1 1	70	l o	100	70	10	ug/l
	SS	932467-2	l i	70	l o	100	70	10	ug/l
	ss	932469-1	1	60	Ŏ	100	60	10	ug/l
.4-Dichlorobenzene	MS	932467-1	l i	160	l ŏ	250	64	10	ug/l
,,	MS	932467-2	l i	180	١٥	250	72	10	ug/l
	MS	932469-1	i	180	Ö	250	72	10	ug/l
	MSD	932469-1	1	170	l ö	250	68	10	ug/l
.4-Dinitrotoluene	MS	932467-1	li	160	lő	250	64	10	ug/l
•	MS	932467-2	1	190	lö	250	76	10	ug/l
	MS	932469-1	1	170	ĺŏ	250	68	10	ug/l
•	MSD	932469-1	1	150	ا ٥	250	60	10	ug/l
lexachtorobenzene	MS	932467-1	l i	190	ŏ	250	76	10	ug/l
	MS	932467-2	1	210	l ŏ	250	84	10	ug/l
	MS	932469-1	i	210	l ŏ	250	84	10	ug/l
	MSD	932469-1	i	200	lŏ	250	80	10	ug/l
exachlorobutadiene	MS	932467-1	1	200	١٥	250	80	10	ug/l
	MS	932467-2	1	200	l ŏ	250	80	10	ug/l
	MS	932469-1	i	210	l ŏ	250	84	10	ug/l
	MSD	932469-1	l i	190	0	250	76	10	ug/l
exachloroethane	MS	932467-1	li	180	l ŏ	250		10	ug/l
	MS	932467-2	l i	180	ŏ	250	72	10	ug/l
	MS	932469-1	li	180	ŏ	250	72	10	ug/l
	MSD	932469-1	i	170	Ŏ	250	68	10	ug/l
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QUALITY ASSURANCE REPORT

10/26/93

CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX JOB NUMBER: 932469

TCLP SEMIVOLATILES

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:33 METHOD: EPA SW-846 8270

QC NUMBER:947927

EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
	MS	932467-2	1	330	0	250	132	10	ug/l
	MS	932469-1	i	220	Ö	250	88	10	ug/l
	MSD	932469-1	i	200	ŏ	250	80	10	ug/l
entachlorophenol	MS	932467-1	i	530	ő	750	71	50	ug/l
circumitor opiniono	MS	932467-2) i	510	Ŏ	750	68	50	ug/l
	MS	932469-1	1	390	Ö	750	52	50	ug/l
	MSD	932469-1	i	290	Ŏ	750	39	50	ug/l
.4,5-Trichlorophenol	MS	932467-1	1 1	580	a	750	77	10	ug/l
	MS	932467-2	1	650	0	750	87	10	ug/l
	MS	932469-1	1	580	Ŏ	750	77	10	ug/l
	MSD	932469-1	1	540	Ö	750	72	10	ug/l
2,4,6-Trichlorophenol	MS	932467-1	1	210	0	250	84	10	ug/l
•	MS	932467-2	1	230	Ŏ	250	92	10	ug/l
	MS	932469-1	i	200	Ö	250	80	10	ug/l
	MSD	932469-1	1	180	0	250	72	10	ug/l
Pyridine	MS	932467-1	1	350	0	500	70	10	ug/l
•	MS	932467-2	1 1	340	0	500	68	10	ug/l
	MS	932469-1	1 1	380	0	500	76	10	ug/l
	MSD	932469-1	1 1	380	0	500	76	10	ug/l
resols (Total)	MS	932467-1	1	570	0	750	76	30	ug/L
	MS	932467-2	1	650	0	750	87	30	ug/L
	MS	932469-1	1	560	0	750	75	30	ug/L
	MSD	932469-1	1	570	0	750	76	30	ug/L
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QUALITY ASSURANCE REPORT

10/26/93

JOB NUMBER: 932469 CUSTOMER: DNSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:10 METHOD: EPA SW-846 8260 QC NUMBER:947972

EST DESCRIPTION	ANALY SUB-TYP	E ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASUR
/inyl chloride	мв	10/18/93	1	<5	5	ug/l
,1-Dichloroethene	MB MB	10/21/93 10/18/93	1.	<5 <5	5	ug/l ug/l
.,. • • • • • • • • • • • • • • • • • •	МВ	10/21/93	i	<5	5	ug/l
2-Butanone	MB	10/18/93	1	<10	10	ug/l
Chloroform	MB MB	10/21/93 10/18/93	1	<10 <5	10	ug/l ug/l
	MB	10/21/93	1 1	<5	5	ug/l
arbon Tetrachloride	МВ	10/18/93	1	<5	5	ug/l
,2-Dichloroethane	MB MB	10/21/93 10/18/93	1	<5 <5	5	ug/l ug/l
1,2-prentor bethane	MB	10/21/93	1	√5 <5	5	ug/l
Benzene	MB	10/18/93	i	< 5	5	ug/l
	MB	10/21/93	1	<5	5	ug/l
richloroethene	MB MB	10/18/93 10/21/93	1 1	<5 <5	5 5	ug/l ug/l
etrachloroethene	MB	10/18/93	1	<5	5	ug/l
	MB	10/21/93	1 1	<5	5	ug/l
Chlorobenzene	МВ	10/18/93	1	<5	5	ug/l
	МВ	10/21/93	1	< 5	5	ug/l
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TCLP Volatiles

CORE LABORATORIES

QUALITY ASSURANCE REPORT

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:10 METHOD: EPA SW-846 8260 QC NUMBER:947972

REFERENCE STANDARDS

EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION	UNITS OF MEASURE
ibromofluoromethane	RS	B285.52.12	1	51	50	102	5	ug/l
oluene d-8	RS	B285.52.12	1 1	49	50	98	5	ug/l
-Bromofluorobenzene	RS	B285.52.12	1	55	50	110	5	ug/l
inyl chloride	RS	B285.52.12	1 1	120	100	120	5	ug/l
,1-Dichloroethene	RS	B285.52.12	1	108	100	108	5	ug/l
-Butanone	RS	B285.52.12]]	89	100	89	10	ug/l
hloroform	RS	B285.52.12	1	61	1 100	01	5	ug/l
arbon Tetrachloride	RS	8285.52.12	1 1	106	100	106	5	ug/t
,2-Dichloroethane	RS	B285.52.12	1	99	100	99	5	ug/l
enzene	RS	8285.52.12	1	101	100	101	5	ug/l
richloroethene	RS	B285.52.12	1	104	100	104	5	ug/l
etrachloroethene	RS	B285.52.12	1	123	100	123	5	ug/l
hlorobenzene	RS	B285.52.12	1	119	100	119	5	ug/l
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TCLP Volatiles

CORE LABORATORIES

QUALITY ASSURANCE REPORT

DATE ANALYZED: 10/22/93 TIME ANALYZED: 09:10 METHOD: EPA SW-846 8260

10/26/93

JOB NUMBER: 932469 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

QC NUMBER:947972

ibromofluoromethane BS 932467-00	EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
\$\begin{array}{c ccccccccccccccccccccccccccccccccccc	ibromofluoromethane	BS	932467-00	1	530	0	500	106	5	ug/l
SS 932467-2 1 540 0 500 108 5 ug/l SS 932469-1 1 510 0 500 102 5 ug/l SS 932502-00 1 2560 0 2500 102 5 ug/l SS 932502-1 1 2740 0 2500 110 5 ug/l SS 932503-1 1 2810 0 2500 110 5 ug/l SS 932504-1 1 590 0 500 118 5 ug/l SS 932504-1 1 590 0 500 96 5 ug/l SS 932467-0 1 480 0 500 96 5 ug/l SS 932467-1 1 470 0 500 98 5 ug/l SS 932467-2 1 490 0 500 98 5 ug/l SS 932469-1 1 490 0 500 98 5 ug/l SS 932502-1 1 2490 0 2500 100 5 ug/l SS 932503-1 1 2490 0 2500 98 5 ug/l SS 932503-1 1 2490 0 2500 98 5 ug/l SS 932503-1 1 2490 0 2500 98 5 ug/l SS 932503-1 1 2490 0 2500 98 5 ug/l SS 932503-1 1 2490 0 500 98 5 ug/l SS 932504-1 1 500 98 5 ug/l SS 932504-1 1 500 98 5 ug/l SS 932504-1 1 500 0 500 98 5 ug/l SS 932504-1 1 560 0 500 98 5 ug/l SS 932504-1 1 560 0 500 112 5 ug/l SS 932467-2 1 570 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932467-1 1 560 0 500 112 5 ug/l SS 932502-1 1 2910 0 2500 116 5 ug/l SS 932503-1 1 2910 0 2500 116 5 ug/l SS 932503-1 1 2910 0 2500 116 5 ug/l		ss	932467-1	1 1	520	i o		104		-
SS 932469-1 1 510 0 500 102 5 ug/t			932467-2	1	540	0	500	108	5	
SS		ss	932469-1	1	510	0	500	102	5	
SS 932503-1 1 2810 0 2500 112 5 ug/l 18		BS	932502-00	1	2560		2500	102	5.	
SS		ss	932502-1	1	2740	0	2500	110	5	ug/l
BS 932467-00 1 480 0 500 96 5 ug/l ss 932467-1 1 470 0 500 98 5 ug/l ss 932467-1 1 490 0 500 98 5 ug/l ss 932502-00 1 2490 0 2500 100 5 ug/l ss 932502-1 1 2440 0 2500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932467-00 1 560 0 500 98 5 ug/l ss 932467-01 1 550 0 500 112 5 ug/l ss 932467-1 1 530 0 500 112 5 ug/l ss 932467-1 1 530 0 500 114 5 ug/l ss 932467-1 1 560 0 500 114 5 ug/l ss 932467-1 1 560 0 500 114 5 ug/l ss 932467-1 1 560 0 500 114 5 ug/l ss 932502-0 1 2830 0 2500 113 5 ug/l ss 932502-0 1 2830 0 2500 113 5 ug/l ss 932502-1 1 2910 0 2500 116 5 ug/l ss 932502-1 1 2910 0 2500 116 5 ug/l ss 932503-1 1 2910 0 2500 116 5 ug/l ug/l		SS	932503-1	1 1	2810			112	5	ug/l
oluene d-8 BS		ss	932504-1	1	590	0	500	118	5	ug/l
SS 932467-2 1 490 0 500 98 5 ug/l ss 932502-00 1 2490 0 2500 100 5 ug/l ss 932503-1 1 2440 0 2500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932504-1 1 490 0 500 98 5 ug/l ss 932467-00 1 560 0 500 98 5 ug/l ss 932467-1 1 530 0 500 112 5 ug/l ss 932467-1 1 530 0 500 112 5 ug/l ss 932467-1 1 530 0 500 106 5 ug/l ss 932467-1 1 550 0 500 114 5 ug/l ss 932467-1 1 560 0 500 114 5 ug/l ss 932469-1 1 560 0 500 114 5 ug/l ss 932502-0 1 2830 0 2500 113 5 ug/l ss 932502-1 1 2910 0 2500 116 5 ug/l ss 932502-1 1 2910 0 2500 116 5 ug/l ss 932503-1 1 2670 0 2500 107 5 ug/l	oluene d-8			1	480		500		5	ug/l
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SS 932504-1 1 490 0 500 98 5 ug/l BS 932467-00 1 560 0 500 112 5 ug/l SS 932467-1 1 530 0 500 106 5 ug/l SS 932467-2 1 570 0 500 114 5 ug/l SS 932469-1 1 560 0 500 112 5 ug/l SS 932502-00 1 2830 0 2500 113 5 ug/l SS 932502-1 1 2910 0 2500 116 5 ug/l SS 932503-1 1 2670 0 2500 107 5 ug/l			932502-1	1	2450		2500	98	5	ug/l
-Bromofluorobenzene BS 932467-00 1 560 0 500 112 5 ug/l ss 932467-1 1 530 0 500 106 5 ug/l ug/l ss 932467-2 1 570 0 500 114 5 ug/l ug/l ss 932469-1 1 560 0 500 112 5 ug/l ug/l ss 932502-00 1 2830 0 2500 113 5 ug/l ss 932502-1 1 2910 0 2500 116 5 ug/l ss 932503-1 1 2670 0 2500 107 5 ug/l		ss	932503-1	1	2440	0	2500	98	5	
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SS			932467-1	1 1	530	0	500	106	5	ug/l
SS 932502-00 1 2830 0 2500 113 5 ug/l		ss	932467-2	1	570	0	500	114		ug/l
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ss 932503-1 1 2670 0 2500 107 5 ug/l	•		932502-00	1	2830	0	2500	113		ug/l
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QUALITY ASSURANCE FOOTER 10/26/93

Standard Methods for the Examination of Water and Wastewater, 17th Ed. APHA, AWWA, WPCF. USEPA SW-846 3rd. Edition, Test Methods for the Evaluation of Solid Waste EPA-600/4-79-020, Methods for the Analysis of Water and Wastes, March 1983 Federal Register, Friday, October 26, 1984 (40 CFR Part 136). EPA-600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils.

Quality control acceptance criteria are method dependent.

GCMS tuning criteria meet EPA CLP Statement of Work OLMO1.0.

All data reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

NC = Not Calculated due to value at or below detection limit.

NOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.

The "TIME ANALYZED" in the QA Report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "DATE ANALYZED" is the actual date of analysis.



QC SAMPLE IDENTIFICATION

1. BLANKS	Method or Method / Type	MB or MB / type [^]
	Reagent	RB
_	Initial Calibration	ICB
	Continuing Calibration	ССВ
	Storage	SB
2. STANDARDS	Laboratory Control	LCS
	Reference	RS
	Initial Calibration	ICV
·	Continuing Calibration	CCV
3. SPIKES	Matrix	MS
	Blank	BS
	Surrogate	SS
	Post Digestion Spike	PDS
	Matrix Spike Duplicate	MSD
4. DUPLICATES	Matrix	MD
	Post Digestion Duplicate	PDD

[^] In the event that several different method blanks are analyzed, the blank type will be designated by the preparation method, i.e., ZHE, TCLP, 3010, 3050, etc.

Subcontracted Analysis Codes

Anaheim	*AN
Aurora	*AU
Casper	*CA
Houston	*HP
Lake Charles	*LC
Long Beach	*LB
Other Laboratories	*XX

^{*} The asterisk in the "TECHN" column signifies that the analysis was performed by a subcontract laboratory.

ON SITE TEGRNOLOGIESTUMITED

CHAIN OF CUSTODY RECORD

Date: 10/14/22

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Page		01_		7

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

Purchas	se Order No.:	Reference No.:	1298			Name	Da	VE	Cox				Title	100	Alle	Bygge
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L <u>.</u>		Dietribu	tion: White - On S	ite Yellow – LAB	Pink - 9	Samoler	Golde	nrod – Cl	lingt							

REQUEST FOR APP L TO ACCEPT SOLID WASTE 1. RCRA Exempt: 4. Generator ₫ ' Verbal Approval Received: Yes Gary Energy/Bloomfield Refinit 5. Name of Originating Site 2. Destination RECEIVED Mile Post 287, Highway 84 Tierra Crouch Mesa LandFarm Rio Arriba Count 3. Address of Facility Operator 6. Name of Transporter 909 West Apache, Farmington, New Mexico 87401 Site Reclamation 7. Location of Material (Street Address or ULSTR) 8. State Mile Post 287, Highway 84, Rio Arriba County New Mexico 9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. BRIEF DESCRIPTION OF THE MATERIAL: Tanker spill resulting in approximately 132 Cubic yards of soil, brush and debris contaminated with crude oil. NOVI 61993 OIL COM DA DEC - 9 1993 OIL CON. DIV. OIST, 3 Known Volume (to be entered by the operator at the end of the haul): TITLE Vice-President TYPE OR PRINT NAME Phillip C. Nobis TELEPHONE NO. (505) 325-0924 (This space for State Use TITLE Resubmitted 12/8/93 CONDITIONS OF APPROVAL, IF ANY: New ignitability ANAlysis

POM

DIST '

Sp. + 1216/03

REQUEST FOR APPR AL TO ACCEPT SOLID WASTE 1. , RCRA Exempt: Non-Exempt: KX Verbal Approval Received: Yes V No	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
2. Destination Tierra Croucn Mesa LandFarm	5. Name of Originating Site Mile Post 287, Highway 84 Rio Arriba County				
3. Address of Facility Operator 909 West Apache, Farmington, New Mexico 87401	6. Name of Transporter Site Reclamation				
7. Location of Material (Street Address or ULSTR) Mile Post 287, Highway 84, Rio Arriba County	8. State New Mexico				
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste of B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste of Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyse and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.	from the Generator; one certificate per job. ste status from the Generator and the New les to prove the material is non-hazardous				

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Tanker spill resulting in approximately 132 Cubic yards of soil, brush and debris contaminated with crude oil.



OIL CON. DIV

		dist	. 3	
Estimated Volume	/32 ov	Known Volume (to be ente	red by the operator at the end of the	haul):cv
		ete to the best of my knowledge an		
SIGNATURE	Phillip C.	TITLE VICE	e-President	DATE 11-16-93
TYPE OR PRINT NAM	Phillip C. Nob	is	TELEPHO	NE NO.(505) 325-0924
(This space for State Use)				
APPROVED BY	eny J. A	TITLE TITLE	Geologist	DATE 12/9/93
APPROVED BY	V			DATE
CONDITIONS OF APPROVA	AL, IF ANY: Re	submitted	12/8/93 0	vith
			ity Analy.	
ent/2/9/93		v	POM	

Sent /2/9/93



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

CERTIFICATE OF WASTE STATUS NON-EXEMPT OILFIELD WASTE

Originating
Site: (Include Name, Section, Township, Range, 1/4, etc.)
Mile Post 287, Highway 84, Rio Arriba County, New Mexico
Source: Tanker Spill - Crude oil
Destination: Tierra Environmental Corporation
Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 Wes
NMPM,
San Juan County, New Mexico
I Chris Hawley representative
I Chris Hawley representative for Bloomfield Refining, P.O. Box 159, Bloomfield, New Mexico
do hereby certify that the waste described above is non-exempt, according to the Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification.
The appropriate documentation is hereto attached.
Check appropriate line(s)
MSDS Information
MSDS InformationRCRA TCLP Analysis
RCRA Metals
Corrosivity, Ignitability, Reactivity
Letter from Out of State Regulatory Agency
I further certify that there has been no change in the processes employe
or chemicals stored / used at the facility generating the waste
since
Signature OmbHowen
Title Environmental Manager
DateNovember 16, 1993

2506 W. Main Street Farmington, New Mexico 87401

December 1, 1993

Tierra Environmental 909 West Apache Farmiington, NM 87401

Dear Dan:

On November 19, 1993, Inter-Mountain Laboratories - Farmington received a soil sample, labelled "C - Oil". The sample were logged in, as per the accompanying chain of custody form, requesting Ignitability. Analysis was done by our Sheridan, WY facility.

Results for the sample are included in this analytical package. If you should have any questions regarding the enclosed reports, feel free to call.

Sincerely,

Dr. Denise A. Bohemier Organic Lab Supervisor

2506 W. Main Street Farmington, New Mexico 87401

WASTE OIL CHARACTERIZATION

CLIENT:

TIERRA ENVIRONMENTAL

Project:

Chromo

Sample ID:

C - Oil

Laboratory ID:

4211

Sample Matrix:

Soil

Report Date:

12/01/93

Preservative:

None

Date Sampled:

11/19/93

Condition:

Intact

Date Received:

11/19/93

Parameter	Result	Units	Regulatory Limit
Ignitability	> 140	°F	must exceed 100

COMMENTS:

REFERENCE:

Method 1010: Pensky Martens Closed Cup Method for Determining Ignitability

Paviewed



Client/Project Name

CHAIN OF CUSTODY RECORD

FILE COPY

Project Location

ANALYSES / PARAMETERS

Sampler: (Signature)

Chain of Custody Tape No.

Remarks

Sample No./ Identification

Date Time

Lab Number

Matrix

3060

ished by: (Signature)

shed by: (Signature)

Date

Date

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by: (Signatu

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Received by:

Received by laboratory: (Signature)

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Inter-Mountain Laboratories, Inc.

1633 Terra Avenue Sheridan, Weoming 82801 Telephone (307) 672-8945

1714 Phillips Circle Gillette, Wyoming 82716 Telephone (307) 682-8945

2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737

910 Technology Blvd. Suite B Bozeman, Montana 59715 Telephone (406) 586-8450

Route 3, Box 256 College Station, TX 77845 Telephone (409) 776-8945

3304 Longmire Drive College Station, TX 77845 Telephone (409) 774-4999 10661



1 November 1993

Phil Nobis
Tierra Environmental Corporation
909 W Apache St.
Farmington, NM 87499

Dear Phil,

Enclosed you will find the TCLP Analysis from the composite sample taken on the 9th of October 1993 at the Bloomfield Refinery Spill on Hwy 84, 6 miles North of Hwy 64 Junction. The appropriate sample identification is Core Laboratories CLIENT ID 0625-1282.

If you have any questions please give me a call. Thank you for your consideration and patience.

Sincerely,

Dave Cox



CORE LABORATORIES ANALYTICAL REPORT

Job Number: 932445 Prepared For:

ONSITE TECHNOLOGIES LIMITED DAVE COX
657 W. MAPLE
FARMINGTON, NM 87401

Date: 10/22/93

Signature

Name: Chip Meador

Title: Regional Manager

CORE LABORATORIES

1733 NORTH PADRE ISLAND DRIVE

CORPUS CHRISTI, TX 78408



LABORATORY

TESTS RESULTS

10/22/93

JOB NUMBER: 932445

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D...... 0625-1282

DATE SAMPLED.....: 10/09/93

TIME SAMPLED.....: 12:30
WORK DESCRIPTION...: 0625-1282

LABORATORY I.D...: 932445-0001 DATE RECEIVED...: 10/13/93 TIME RECEIVED...: 11:20

REMARKS..... SAMPLED BY: D.C.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTIO	UNITS OF MEASURE	TEST METHOD	DATE	TECH
TCLP Semivolatiles		*1		EPA SW-846 8270	10/21/93	GEF
1,4-Dichlorobenzene	<10	10	ug/L	EPA SW-846 8270		
2,4-Dinitrotoluene	<10	10	ug/L	EPA SW-846 8270		
Hexachlorobenzene	<10	10	ug/L	EPA SW-846 8270		
Hexachlorobutadiene	<10	10	ug/L	EPA SW-846 8270		
Hexachloroethane	<10	10	ug/L	EPA SW-846 8270		
Nitrobenzene	<10	10	ug/L	EPA SW-846 8270	\$	
Pentachlorophenol	<50	50	ug/L	EPA SW-846 8270		
2,4,5-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270		
2,4,6-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270		
Pyridine	<10	10	ug/L	EPA SW-846 8270		
Cresols (Total)	<30	30	ug/L	EPA SW-846 8270		
TCLP Volatiles		*10		EPA SW-846 8260	10/15/93	ВЈН
Benzene	<50	50	ug/L	EPA SW-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260		
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260		
Chloroform	<50	50	ug/L	EPA SW-846 8260		
2-Butanone	<100	100	ug/L	EPA SW-846 8260		
Trichloroethene	<50	50	ug/L	EPA SW-846 8260		
Vinyl chloride	<40	40	ug/L	EPA SW-846 8260		
1,2-Dichloroethane	<50	50	ug/L	EPA SW-846 8260		
Tetrachloroethene	<50	50	ug/L	EPA SW-846 8260	•	
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 3520	10/18/93	SEB
Glass Jar Extraction for Metals	Completed			EPA SW-846 1311	10/14/93	RAD
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	10/14/93	RAD
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Barium (Ba), extractable TCLP	0.59	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Lead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Selenium (Se), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM



LABORATORY TESTS RESULTS

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D.....: 0625-1282

DATE SAMPLED....: 10/09/93

LABORATORY I.D...: 932445-0001 DATE RECEIVED...: 10/13/93

TIME SAMPLED.....: 12:30
WORK DESCRIPTION...: 0625-1282

TIME RECEIVED...: 10/13/

REMARKS..... SAMPLED BY: D.C.

	,			•		
TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
Silver (Ag), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/21/93	JEM
Flammability Potential Screening	Negative		+ or -	ASTM D4982-89	10/19/93	DC
рН, solid/waste	7.5	0.1	pH units	EPA SW-846 9045 1:2	10/19/93	GCC
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	10/18/93	JJP
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	10/14/93	СН
Zero Headspace Extraction-Volatile	Completed			EPA SW-846 1311	10/14/93	RAD
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				LITY	10/22/93		PORT			
OB NUMBER:			R: ONSITE T	T		1	ATTN: DAVE	1		-
	ANAL	YSIS		DUPL	ICATES	REFERENCE	STANDARDS	<u> </u>	MATRIX SPIKE	s -
NALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SP1KE ADDED	PERCENT RECOVERY
	ercury (Hg), IMIT/DF: 0.00				NALYZED:10/18 RENCE :EPA S				a a constituit de la constituit de la constituit de la constituit de la constituit de la constituit de la cons	UMBER:94763 CHNICIAN:JJ
LANK TANDARD PIKE UPLICATE	MB RS MS MD	DI H20 WP1085 932444-1 932444-1	<0.002 0.022 0.052 <0.002	<0.002	NC	0.020	110	<0.002	0.050	104
ARAMETER:F EPORTING L	lammability P IMIT/DF:	otential Scr UNITS:+ or			NALYZED:10/19 RENCE :ASTM					UMBER:94766 CHNICIAN:DC
UPLICATE	MD	932467-1	Positive	Positive	0					
	H, solid/wast IMIT/DF: 0.1			kura (kili kata da bata da bata da bata da bata da bata da bata da bata da bata da bata da bata da bata da bat	NALYZED:10/19 RENCE :EPA S	ngga garagang ng mga daga	nod			UMBER:94772 CHNICIAN:GC
STANDARD STANDARD DUPLICATE	I CV CCV MD	1,81,16 1,81,16 932444-1	6.97 6.99 7.91	8.03	2	7.00 7.00	100 100			
	rsenic (As), IMIT/DF: 0.05				NALYZED:10/2° RENCE :EPA S		1		li ili ili dala dala kanana kanana kanana kanana kanana kanana kanana kanana kanana kanana kanana kanana kanan	UMBER:94780 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE DUPLICATE	MB ICV CCV MS MD	3010 qc19N B6079 932444-001 932444-001	<0.05 1.00 5.01 0.52 <0.05	<0.05	NC	1.00 5.00	100	<0.05	0.50	104
PARAMETER:S	ilver (Ag), e IMIT/DF: 0.05	xtractable T UNITS:mg/L	CLP		, NALYZED:10/2° RENCE :EPA S		1			UMBER:94780 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE DUPLICATE	MB 1CV CCV MS MD	3010 qc-7 B6079 932444-001 932444-001	<0.05 1.01 4.93 1.85 <0.05	<0.05	NC	1.00	101	<0.05	2.00	92
	arium (Ba), e IMIT/DF: 0.05				NALYZED:10/2 RENCE :EPA :		<u> </u>			UMBER:94780 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE DUPLICATE	MB ICV CCV MS MD	3010 QC-7 B6079 932444-001 932444-001	<0.05 1.05 5.11 2.08 1.60	1.64	2	1.00	105 102	1.60	0.50	96
							1733 NORTH	PADRE ISLA	ND DRIVE	



1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

(\$560 LL) 100000 ; 100000000000000	736443	CUSTOME	N. UNDIIL	ECUNOLOG1E2	FINTIED		ATTN: DAVE	CUA		
	ANAI	LYSIS		DUPLICATES		REFERENCE STANDARDS		MATRIX SPIKES		
NALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
		extractable 5 UNITS:mg/L			NALYZED:10/2 RENCE :EPA :		1			IUMBER:94780 CHNICIAN:JE
LANK TANDARD TANDARD	MB ICV CCV	3010 QC19N B6079	<0.05 0.98 4.96			1.00	98 99			
PIKE UPLICATE	MS MD	932444-001 932444-001	0.48 <0.05	<0.05	NC			<0.05	0.50	96
		, extractable 5 UNITS:mg/L	TCLP	DATE/TIME A METHOD REFE	NALYZED:10/2 RENCE :EPA	1/93 11:18 SW-846 6010				JUMBER:94780 CHNICIAN:JE
LANK TANDARD TANDARD PIKE UPLICATE	MB ICV CCV MS MD	3010 QC19N B6079 932444-001	<0.05 0.99 4.94 0.49 <0.05	<0.05	NC	1.00	99 99	<0.05	0.50	98
ARAMETER:L	MB MB	tractable TCL 5 UNITS:mg/L 3010	P <0.05	I Date/Time a	NALYZED:10/2 RENCE :EPA	sw-846 6010		1 1	didiciones de la companie de la comp	IUMBER:9478
STANDARD STANDARD SPIKE SUPLICATE	ICV CCV MS MD	QC19N B6079 932444-001 932444-001	0.99 4.99 0.46 <0.05	<0.05	NC	1.00 5.00	99	<0.05	0.50	92
ARAMETER:S EPORTING L	elenium (Se) IMIT/DF: 0.0	, extractable 5 UNITS:mg/L	TCLP		NALYZED:10/2 RENCE :EPA				Ç Şiridi deliye dayatırının de, yardıldır.	IUMBER:94780 CHNICIAN:JI
BLANK STANDARD STANDARD SPIKE SUPLICATE	MB ICV CCV MS MD	3010 QC19N B6079 932444-001 932444-001	<0.05 1.02 5.07 0.47 <0.05	<0.05	NC	1.00 5.00	102 101	<0.05	0.50	94
	1									

PAGE:4



QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP Volatiles DATE ANALYZED: 10/15/93 TIME ANALYZED: 13:40 METHOD: EPA SW-846 8260

QC NUMBER:947629

TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASURE
/inyl chloride	МВ	10/12/93	1	<5	5	ug/l
•	мв	10/14/93	1	< 5	5	ug/l
	MB2	10/14/93	1	<5	5	ug/l
I,1-Dichloroethene	MB	10/12/93	1	<5	5	ug/l
	MB	10/14/93	1	< <u>5</u>	5	ug/l
	MB2	10/14/93	1	<5	5	ug/l
2-Butanone	MB	10/12/93	1	<10	10	ug/l
	MB	10/14/93	1 1	<10	10	ug/l
Chloroform	MB2 MB	10/14/93	1 1	<10	10	ug/l
into oronii	MB	10/12/93 10/14/93	\	<5 <5	5 · 5	ug/l
	MB2	10/14/93		<5	5	ug/l ug/l
Carbon Tetrachloride	MB	10/12/93		<5	5	ug/l
an barrier admit of rac	МВ	10/14/93	l i	< 5	5 .	ug/l
	MB2	10/14/93	l i	< 5	5	ug/l
1,2-Dichloroethane	MB	10/12/93	1 1	<5	5	ug/l
.,-	мв	10/14/93	1 1	<5	5	ug/l
	MB2	10/14/93	1	<5	5	ug/l
Benzene	МВ	10/12/93	1	<5 <5	5	ug/l
	MB	10/14/93	1	<5	5	ug/l
	MB2	10/14/93	1	< 5	5	ug/l
Trichloroethene	MB	10/12/93	1	<5	5	ug/l
	MB	10/14/93	1	<5	5	ug/l
	MB2	10/14/93	1	<5	5.	ug/l
Tetrachloroethene	MB	10/12/93	1	<5 	5	ug/l
	MB MB2	10/14/93	1	<5 -5	5 5	ug/l
Chlorobenzene	MB	10/14/93 10/12/93	1 1	<5 <5	5	ug/l
	MB	10/14/93	i	<5	5	ug/l ug/l
	MB2	10/14/93	i	<5	5	ug/l
	INDE	10/ 14/ 73	1			ug/ t
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QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 10/15/93 TIME ANALYZED: 13:40 METHOD: EPA SW-846 8260

QC NUMBER:947629

EST ESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
ibromofluoromethane	СС	B285.80.21	1	50	50	100	5	ug/l
oluene d-8	lcc	B285,80.21	1	53	50	106	5	ug/l
-Bromofluorobenzene	cc	B285.80.21	1	55	50	110	5	ug/l
invl chloride	cc	B285.80.21	1 1	103	100	103	5	ug/l
,1-Dichloroethene	cc	B285.80.21	1	112	100	112	5	ug/l
-Butanone	cc	B285.80.21	1	102	100	102	10	ug/l
hloroform	cc	B285.80.21	l i	132	100	132	5	ug/l
arbon Tetrachloride	cc	B285.80.21	i	98	100	98	5	ug/l
,2-Dichloroethane	cc	B285.80.21	l i	133	100	133	5	
enzene	CC		i					ug/l
enzene richloroethene		B285.80.21	1	114	100	114	5	ug/l
	CC	B285.80.21	1	110	100	110	5	ug/l
etrachloroethene	CC	B285.80.21	1	100	100	100	5	ug/l
hlorobenzene	cc	B285.80.21	1	116	100	116	5	ug/l
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TCLP Volatiles

CORE LABORATORIES

QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

DATE ANALYZED: 10/15/93 TIME ANALYZED: 13:40 METHOD: EPA SW-846 8260

QC NUMBER:947629

TEST	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	ORIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
DESCRIPTION	SUB-TYPE	I. D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY		MEASURE
ibromofluoromethane	BS	932435-00	1	500	0	500	100	5	ug/l
	SS	932435-1	1	2500	. 0	2500	100	5	ug/l
	SS	932436-1] 1	510) 0	500	102	5	ug/l
	SS	932437-1	1	2440	0	2500	98	5	ug/l
	SS	932439-1	1	520	0	500	104	5	ug/l
	BS	932444-00	1	490	0	500	98	5	ug/l
	SS	932444-1	1	490	0	500	98	5	ug/l
	SS	932445-1	1	500	0	500	100	5	ug/l
	SS	932447-1	1	500	0	500	100	5 -	ug/l
	ss	932448-1	1	2490	0	2500	100	5	ug/l
	BS	932449-00	1	2220	0	2500	89	5	ug/l
	SS	932249-1	1 1	2230	0	2500	89	5	ug/l
	SS	932451-1	1	450	0	500	90	5	ug/l
	BS	932450-00	1 1	2360	0	2500	94	5	ug/l
	ss	932450-1] 1	2420	0	2500	97	5	ug/l
oluene d-8	BS	932435-00	1	480	0	500	96	5 5	ug/l
	SS	932435-1	1	2520	0	2500	101	5	ug/l
	SS	932436-1	1	500	0	500	100	5	ug/l
	SS	932437-1	1	2530	0	2500	101	5	ug/l
	SS	932439-1	1 1	510	0	500	102	5	ug/l
	BS	932444-00	1	500	0	500	100	5	ug/l
	SS	932444-1	1	500	0	500	100	5	ug/l
	SS	932445-1	1	500	0	500	100	5	ug/l
	SS	932447-1	1 1	520	0	500	104	5	ug/l
	SS	932448-1	1	2520	0	2500	101	5	ug/l
	BS	932449-00	1	2460	0	2500	98	5	ug/l
	SS	932449-1	1	2430	0	2500	97	5	ug/l
	SS	932451-1	1 1	480	0	500	96	5	ug/l
	BS	932450-00	1	2410	0	2500	96	5	ug/l
Bromofluorobenzene	SS	932450-1	1	2460	0	2500	98	5 5	ug/l
-Bromot Luorobenzene	BS	932435-00	1	490	1	500	98	5	ug/l
	SS	932435-1 932436-1	1 1	2510 490	0	2500 500	100 98	5	ug/l
	SS	932430-1		2540	0	2500	102	5	ug/l
	SS	932437-1	;	500	0	500	102	5	ug/l
	BS	932444-00		510		500	100	5	ug/l
	SS	932444-1	1	510	0	500	102	5	ug/l ug/l
	SS	932445-1	1	500	Ö	500	102	5	ug/l
	SS	932447-1	i	510	Ŏ	500	102	5	ug/l
	ss	932448-1	l i	2590	0	2500	104	5	ug/l
	BS	932449-00	i	2380	0	2500	95	5	ug/l
	ss	932449-1	1	2340	Ö	2500	94	5	ug/l
	ss	932451-1	i	450	Ö	500	90	5	ug/l
	BS	932450-00	i	2360	0	2500	94	5	ug/l
	SS	932450-1	1 1	2290	0	2500	92	5	ug/l



QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 10/15/93 TIME ANALYZED: 13:40 METHOD: EPA SW-846 8260

QC NUMBER:947629

Vinyl chloride MS 932449-1 1 4160 0 5000 83 5 0 1,1-Dichloroethene MS 932449-1 1 4150 0 5000 83 5 0 2-Butanone MS 932449-1 1 4190 0 5000 84 10 0 Chloroform MS 932449-1 1 2450 0 5000 49 5 0 Carbon Tetrachloride MS 932449-1 1 5130 0 5000 103 5 0 1,2-Dichloroethane MS 932449-1 1 3800 0 5000 76 5 0 Benzene MS 932449-1 1 4600 0 5000 92 5 0 Trichloroethene MS 932449-1 1 4530 0 5000 91 5 0 Tetrachloroethene MS 932449-1 1 4770 0 5000 95 5 0	MEASURE
1-Dichloroethene	
-Butanone MS 932449-1 1 4190 0 5000 84 10 u hloroform MS 932449-1 1 2450 0 5000 49 5 u hloroform arbon Tetrachloride MS 932449-1 1 5130 0 5000 103 5 u hloroform MS 932449-1 1 3800 0 5000 76 5 u hloroform MS 932449-1 1 4600 0 5000 92 5 u hloroforethene MS 932449-1 1 4530 0 5000 91 5 u hloroforethene MS 932449-1 1 4770 0 5000 95 5 u hloroforethene	ug/l
hloroform MS 932449-1 1 2450 0 5000 49 5 u arbon Tetrachloride MS 932449-1 1 5130 0 5000 103 5 u ,2-Dichloroethane MS 932449-1 1 3800 0 5000 76 5 u enzene MS 932449-1 1 4600 0 5000 92 5 u richloroethene MS 932449-1 1 4530 0 5000 91 5 u etrachloroethene MS 932449-1 1 4770 0 5000 95 5 u	ug/l
arbon Tetrachloride MS 932449-1 1 5130 0 5000 103 5 0 ,2-Dichloroethane MS 932449-1 1 3800 0 5000 76 5 0 enzene MS 932449-1 1 4600 0 5000 92 5 0 richloroethene MS 932449-1 1 4530 0 5000 91 5 0 etrachloroethene MS 932449-1 1 4770 0 5000 95 5 0	ug/l
,2-Dichloroethane MS 932449-1 1 3800 0 5000 76 5 u enzene MS 932449-1 1 4600 0 5000 92 5 u enzene etrachloroethene MS 932449-1 1 4530 0 5000 91 5 u etrachloroethene MS 932449-1 1 4770 0 5000 95 5 u	ug/l
enzene MS 932449-1 1 4600 0 5000 92 5 u richloroethene MS 932449-1 1 4530 0 5000 91 5 u etrachloroethene MS 932449-1 1 4770 0 5000 95 5 u	ug/l
richloroethene MS 932449-1 1 4530 0 5000 91 5 u etrachloroethene MS 932449-1 1 4770 0 5000 95 5 u	ug/l
trachloroethene MS 932449-1 1 4770 0 5000 95 5 u	ug/l
	ug/l
	ug/l
olorobenzene MS 932449-1 1 4570 0 5000 91 5 u	ug/l



QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles DATE ANALYZED: 10/15/93 TIME ANALYZED: 13:40 METHOD: EPA SW-846 8260 QC NUMBER:947629

		D	UPLICA	T E S				
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride 1,1-Dichloroethene 2-Butanone Chloroform Carbon Tetrachloride 1,2-Dichloroethane Benzene Trichloroethene Tetrachloroethene Chlorobenzene	MD MD MD MD MD MD MD MD	932449-1 932449-1 932449-1 932449-1 932449-1 932449-1 932449-1 932449-1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<5 <5 <10 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 <5 <10 <5 <5 <5 <5 <5 <5	NC NC NC NC NC NC NC NC	5 5 10 5 5 5 5 5 5 5	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l



QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/21/93 TIME ANALYZED: 14:42 METHOD: EPA SW-846 8270

QC NUMBER:947789

EST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASUR
1,4-Dichlorobenzene	МВ	10/18/93	1	<10	10	ug/l
2,4-Dinitrotoluene	MB	10/18/93	1 .	<10	10	ug/l
lexach lorobenzene	МВ	10/18/93	1	<10	10	ug/l
lexachlorobutadiene	MB	10/18/93	1	<10	10	ug/l
Hexachloroethane Hitrobenzene	MB MB	10/18/93	1	<10	10	ug/l
rentachlorophenol	MB	10/18/93 10/18/93	1 1	<10	10	ug/t
4,4,5-Trichlorophenol	MB	10/18/93	1	<50 <10	50 10	ug/l
2,4,6-Trichlorophenol	MB	10/18/93	1 1	<10	10	ug/l ug/l
yridine	MB	10/18/93	1	<10	10	ug/l
resols (Total)	MB	10/18/93	i	<30	30	ug/i
	1	1.0, 1.0, 1.0	,	130	30	ag, c
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QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/21/93 TIME ANALYZED: 14:42 METHOD: EPA SW-846 8270

QC NUMBER:947789

TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION	ANALYZED	TRUE	PERCENT	DETECTION	
JESCRIFTION	308-11PE	I. D.	FACTOR	VALUE	VALUE	RECOVERY	LIMITS	MEASURE
2-Fluorophenol	RS	B285.86.13	1	220	200	110	10	ug/l
Phenol-d6	RS	B285.86.13	1	220	200	110	10	ug/l
Nitrobenzene-d5	RS	B285.86.13	1	120	100	120	10	ug/l
2-Fluorobiphenyl	RS	B285.86.13	1	110	100	110	10	ug/l
2,4,6-Tribromophenol	RS	B285.86.13	1	220	200	110	10	ug/l
Terphenyl-d14	RS	B285.86.13	1	100	100	100	10	ug/l
1,4-Dichlorobenzene	RS	B285.86.13	1	110	100	110	10	ug/l
2,4-Dinitrotoluene	RS	B285.86.13	1	100	100	100	10	ug/l
Hexachlorobenzene	RS	B285.86.13	l i	80	100	80	10	ug/l
Hexachlorobutadiene	RS	8285.86.13] i	110	100	110	10	ug/l
Hexachloroethane	RS	B285.86.13	l i	110	100	110	10	ug/l
Nitrobenzene	RS	B285.86.13	l i	110	100	110	10	ug/l
Pentachlorophenol	RS	8285.86.13	l i	100	100	100	50	ug/l
2,4,5-Trichlorophenol	RS	B285.86.13	i	120	100	120	10	ug/l
2,4,6-Trichlorophenol	RS	B285.86.13	1	120	100	120	10	ug/l
Pyridine	RS	B285.86.13	1	120	100	120	10	ug/l ug/l
Cresols (Total)	RS	B285.86.13	l i	330	300	110	30	ug/ t
cresors (rotal)	N3	16203.00.13	i '	330	300	110	30	ug/L
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QUALITY ASSURANCE

10/22/93

JOB NUMBER: 932445 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

REPORT

TCLP SEMIVOLATILES

DATE ANALYZED: 10/21/93 TIME ANALYZED: 14:42 METHOD: EPA SW-846 8270

QC NUMBER:947789

TEST	ANALYSIS	ANALYSIS	DILUTION	ANALYZED	ORIGINAL	SPIKE	PERCENT	DETECTION	UNITS OF
DESCRIPTION	SUB-TYPE	I. D.	FACTOR	VALUE	VALUE	ADDED	RECOVERY		MEASURE
2-Fluorophenol	мв	932439-00	1	50	0	200	25	10	ug/l
	SS	932439-1	1	420	0	2000	21	10	ug/l
	SS	932444-1	1	130	0	200	65	10	ug/l
	SS	932445-1	1	90	0	200	45	10	ug/l
	SS	932447-1	1	370	0	2000	18	10	ug/l
	SS	932448-1	1	610	0	2000	30	10	ug/l
	SS	932449-1	1	480	0	2000	24	10	ug/l
	SS	932450-1	1	900	0	2000	45	10	ug/l
	SS	932451-1	1 1	930	0	2000	46	10	ug/l
henol-d6	МВ	932439-00	1	90	0	200	45	10	ug/l
	SS	932439-1] 1	810	0	2000	40	10	ug/l
	SS	932444-1	1	140	Ò	200	70	10	ug/l
	SS	932445-1	1	120	Ŏ	200	60	10	ug/l
	SS	932447-1	1	710	Ŏ	2000	36	10	ug/l
	SS	932448-1	1	810	l ŏ	2000	40	10	ug/l
	ss	932449-1	1	870	0	2000	44	10	ug/l
	SS	932450-1	1 1	1200	0	2000	60	10	ug/l
	ss	932451-1	1 1	1200	0	2000	60	10	ug/l
itrobenzene-d5	MB	932439-00	1	50	Ö	100	50	10	ug/l
	SS	932439-1	1	620	0	1000	62	10	ug/l
	SS	932444-1	1	50.	Ö	100	50	10	ug/l
	SS	932445-1	1	70	Ö	100	70	10	ug/l
	SS	932447-1	1 1	570	Ö	1000	57	10	ug/l
	ss	932448-1	ì i	870	Ö	1000	87	10	ug/l
	SS	932449-1	l i	450	ŏ	1000	45	10	ug/l
	SS	932450-1	1 1	620	ŏ	1000	62	10	ug/l
	ss	932451-1	li	650	Ö	1000	65	10 1	ug/l
-Fluorobiphenyl	МВ	932439-00	i	40	Ŏ	100	40	10	ug/l
1 tuoi obi pheny t	SS	932438-1	li	480	Ö	1000	48	10	ug/l
	ss	932444-1	l i	80	Ö	100	80	10	ug/l
	ss	932445-1	li	50	lő	100	50	10	ug/l
	ss	932447-1	li	500	ìŏ	1000	50	10	ug/l
	ss	932448-1	li	450	ŏ	1000	45	10	ug/l
	ss	932449-1	i	390	Ŏ	1000	39	10	ug/l
	ss	932450-1	li	680	ŏ	1000	68	10	ug/l
	ss	932451-1	li	490	Ŏ	1000	49	10	ug/l
.4.6-Tribromophenol	MB	932439-00	l i	90	ŏ	200	45	10	ug/l
, 4,0 11 for omopheriot	ss	932439-1	l i	920	Ö	2000	46	10	ug/l
	ss	932444-1	l i	170	0	200	85	10	ug/l
	ss	932445-1	li	130	0	200	65	10	ug/l
	SS	932447-1	;	740	0	2000	37	10	ug/l ug/l
	SS	932448-1	li	890	0	2000	44	10	ug/l
	SS	932449-1	1	1100	0	2000	55	10	ug/t ug/t
	SS				0	2000	80	10	ug/l ug/l
	SS	932450-1 932451-1		1600 1500	0	2000	75	10	
	၂၁၁	732431-1	I •	11200	, v	12000	/3	10	ug/l



QUALITY

ASSURANCE 10/22/93

REPORT

JOB NUMBER: 932445

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/21/93 TIME ANALYZED: 14:42 METHOD: EPA SW-846 8270

QC NUMBER:947789

EST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP1KE ADDED	PERCENT RECOVERY	DETECTION	UNITS OF MEASURE
DESCRIPTION	308-1175	1. 0.	PACTUR	VALUE	VALUE	ADDED	RECOVERT	LIMIIS	MEASURE
erphenyl-d14	МВ	932439-00	1	60	0	100	60	10	ug/l
	SS	932439-1	1	630	0	1000	63	10	ug/l
	SS	932444-1	1	90	0	100	90	10	ug/l
	SS	932445-1	1	60	0	100	60	10	ug/l
	SS	932447-1	1	620	0	1000	62	10	ug/l
	SS	932448-1	1	480	0	1000	48	10	ug/l
	ss	932449-1	1	550	O	1000	55	10	ug/l
	ss	932450-1	1	1200	Ò	1000	120	10	ug/l
	SS	932451-1	1	700	O	1000	70	10	ug/l
.4-Dichlorobenzene	MS	932439-1	1	1300	lò	2500	52	10	ug/l
,, , , , , , , , , , , , , , , , , , , ,	MSD	932439-1	l i	1200	l ŏ	2500	48	10	ug/l
	MS	932444-1	1	170	Ö	250	68	10	ug/l
	MS	932445-1	1	160	ìŏ	250	64	10	ug/l
	MS	932449-1	ĺi	860	l ŏ	2500	34	10	ug/l
.4-Dinitrotoluene	MS	932439-1	li	1800	Ö	2500	72	10	ug/l
, , , , , , , , , , , , , , , , , , , ,	MSD	932439-1	l i	1300	Ö	2500	52	10	ug/l
	MS	932444-1	i	110	Ĭŏ	250	44	10	ug/l
	MS	932445-1	l i	140	ő	250	56	10	ug/l
	MS	932449-1	1	1500	l ŏ	2500	60	10	- ·
exachlorobenzene	MS	932439-1	1	2200	0	2500	88	10	ug/l
nexactivoi obelizene	MSD	932439-1	1 1	1700	0	2500	68	10	ug/l
	MS			I			1	1	ug/l
	1	932444-1	1	220	0	250	88	10	ug/l
	MS	932445-1	1	210	0	250	84	10	ug/l
	MS	932449-1	1 1	2100	0	2500	84	10	ug/l
exachlorobutadiene	MS	932439-1	1	1900	0	2500	76	10	ug/l
	MSD	932439-1	[1	1600	0	2500	64	10	ug/l
	MS	932444-1	1	210	0	250	84	10	ug/l
	MS	932445-1	1	190	0	250	76	10	ug/l
	MS	932449-1	1	1400	0	2500	56	10	ug/l
exachloroethane	MS	932439-1	1	1300	0	2500	52	10	ug/l
	MSD	932439-1	1	1200	0	2500	48	10	ug/l
	MS	932444-1	1	140	0	250	56	10	ug/l
	MS	932445-1	1	150	0	250	60	10	ug/l
	MS	932449-1	1	790	0	2500	32	10	ug/l
i trobenzene	MS	932439-1	1	2000	0	2500	80	10	ug/l
	MSD	932439-1	1	1600	0	2500	64	10	ug/l
	MS	932444-1	1	210	0	250	84	10	ug/l
	MS	932445-1	1	200	0	250	80	10	ug/l
	MS	932449-1	1	2000	0	2500	80	10	ug/l
entachlorophenol	MS	932439-1	1	3200	0	7500	43	50	ug/l
	MSD	932439-1	1	1100	0	7500	15	50	ug/l
	MS	932444-1	1	410	0	750	55	50	ug/l
	MS	932445-1	1	400	0	750	53	50	ug/l
	MS	932449-1	1 1	3300	0	7500	44	50	ug/l
.4.5-Trichlorophenol	MS	932439-1	1	3600	Ŏ	7500	48	10	ug/l



QUALITY ASSURANCE REPORT

10/22/93

JOB NUMBER: 932445

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/21/93 TIME ANALYZED: 14:42 METHOD: EPA SW-846 8270

QC NUMBER:947789

TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
	MSD	932439-1	1	3700	0	7500	49	10	ug/l
	MS	932444-1	i	590	0	750	79	10	
	MS	932445-1] i	530	Ö	750	71	10	ug/l ug/l
	MS	932449-1	1	4000	ŏ	7500	53	10	ug/l
2,4,6-Trichlorophenol	MS	932439-1	i	1100	ŏ	2500	44	10	ug/l ug/l
z, +, o // fortor opironot	MSD	932439-1	} i	1100	ŏ	2500	44	10	ug/l
	MS	932444-1	i	210	ŏ	250	84	10	ug/l
	MS	932445-1	i	200	l ŏ	250	80	10	ug/l
	MS	932449-1	i	1300	ŏ	2500	52	10	ug/l
Pyridine	MS	932439-1) i	3800	ŏ	5000	76	10	ug/l
,	MSD	932439-1	l i	3100	l o	5000	62	10	ug/l
	MS	932444-1	i	300	l ŏ	500	60	10	ug/l
	MS	932445-1	i	330	Ŏ	500	66	10	ug/l
	MS	932449-1) i	3400	ìŏ	5000	68	10	ug/l
Cresols (Total)	MS	932439-1	l i	4700	ŏ	7500	63	30	ug/L
	MSD	932439-1	l i	4500	ŏ	7500	60	30	ug/L
	MS	932444-1	\ i	630	Ö	750	84	30	ug/L
	MS	932445-1	l i	560	Ŏ	750	75	30	ug/L
	MS	932449-1	l i	5300	l ŏ	7500	71	30	ug/L
	1	/52.117	'	13300		7300	''	50	ug/ L
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QUALITY ASSURANCE FOOTER 10/22/93

Standard Methods for the Examination of Water and Wastewater, 17th Ed. APHA,AWWA,WPCF. USEPA SW-846 3rd. Edition, Test Methods for the Evaluation of Solid Waste EPA-600/4-79-020, Methods for the Analysis of Water and Wastes, March 1983 Federal Register, Friday, October 26, 1984 (40 CFR Part 136). EPA-600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils.

Quality control acceptance criteria are method dependent.

GCMS tuning criteria meet EPA CLP Statement of Work OLM01.0.

All data reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

NC = Not Calculated due to value at or below detection limit.

NOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.

The "TIME ANALYZED" in the QA Report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "DATE ANALYZED" is the actual date of analysis.



QC SAMPLE IDENTIFICATION

1. BLANKS	Method or Method / Type	MB or MB / type [^]
	Reagent	RB
	Initial Calibration	ICB
	Continuing Calibration	CCB
	Storage	SB
2. STANDARDS	Laboratory Control	LCS
	Reference	RS
	Initial Calibration	ICV
	Continuing Calibration	CCV
3. SPIKES	Matrix	MS
	Blank	BS
	Surrogate	SS
	Post Digestion Spike	PDS
	Matrix Spike Duplicate	MSD
4. DUPLICATES	Matrix	MD
	Post Digestion Duplicate	PDD

[^] In the event that several different method blanks are analyzed, the blank type will be designated by the preparation method, i.e., ZHE, TCLP, 3010, 3050, etc.

Subcontracted Analysis Codes

Anaheim	*AN
Aurora	*AU
Casper	*CA
Houston	*HP
Lake Charles	*LC
Long Beach	*LB
Other Laboratories	*XX

^{*} The asterisk in the "TECHN" column signifies that the analysis was performed by a subcontract laboratory.

ON'S E TECHNOLOGIES LIMITED

CHAIN OF CUSTODY RECORD

Date: $\frac{14\sqrt{2}\sqrt{95}}{}$

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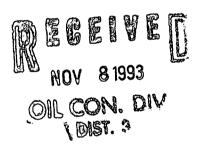
657 W. Maple • P. O. Box 2606 • Farmington, NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchas	se Order No.:	Reference No.:	· (*	-10.6			Name	En t	116	201	47.7	-G		Title				
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SEND INVOICE TO	Address					REPORT ESULTS TO	Mailing Address 969 to A (MCH) 87 City, State, Zip E A P 1 M 6 7 P M 8 9 9 9 9											
=	City, State, Zip					₹	<u> </u>	hone No).				7 1	Telefax	No.			
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		the state of the second of the second state authorized	1	nsvic i	10155		ANALYSIS REQUESTED											
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Sampler:					Number of Containers	/	[/ 2 c\		/ /	/ /	/	/ /	/	/ /		
	SAMPLE IDENTIFICATION	DATE/T SAMPL	ME ED	COMPOSITE/ GRAB	PRESERVATIVES		4	<i>i</i> ~/	-/ 4	ولي كريا								emarks (matrix)
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	Method of Shipment:					77				3 1-		6 6 P	. – , -					
Authoriz	ced by: (Client Signature Must Acc	company Request)	Margaman a	_ Date			ı. ·		,	> .		April 2						
L	Distribution: White - On Site Vallow - LAR																	

REQUEST FOR APPRO TO ACCEPT SOLID WASTE	kxxxxxxxxxxxxxxxxxxx									
. 1. RCRA Exempt: 从 Non-Exempt: □	4. Generator									
Verbal Approval Received: Yes □ No □	El Paso Natural Gas Company									
2. Destination	5. Name of Originating Site									
Tierra Environmental Corporation Crouch Mesa Landfarm, NM	SEE ATTACHED LIST									
3. Address of Facility Operator	6. Name of Transporter									
 	Yucca Welding									
7. Location of Material (Street Address or ULSTR)	8. State									
SEE ATTACHED LIST	New Mexico									
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.										

BRIEF DESCRIPTION OF THE MATERIAL:

 $\gamma_{ar}ious$ dehydrator and drip pits. No other material from any other locations will be mixed with this material.



Estimated Volume	cy Know	n Volume (to be entered	d by the operator at t	he end of the haul):	578 500
SIGNATURE	Stion above is true and complete to the best	TITLE Vice			DATE 11-5-93
TYPE OR PRINT NAME _	Phillip C. Nobis			_ TELEPHONE NO	325-0924
APPROVED BY		TITLE	Geol Geol		DATE <u>11/9/93</u> DATE <u>11-8-93</u>



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

CERTIFICATE OF WASTE STATUS EXEMPT OILFIELD WASTE

Originating
Site: (Include Name, Section, Township, Range, 1/4, etc.)
A list of pit closure sites is attached. No other material from any other locations will be mixed with this material.
any other rectarions high se mixed intervals.
This material originated:
XX In The State of New Mexico
From the State of Letter from the Regulatory
Agency having jurisdiction therefore is attached.
Source: Various dehydrator and drip pits.
Destination: Tions Environmental Composition
Destination: Tierra Environmental Corporation Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 West
NMPM
San Juan County, New Mexico
I Anu Pundari
representative for El Paso Natural Gas Company
do hereby certify that the waste described above is material that is exempted from
regulation by the Resource Conservation and Recovery Act (RCRA) and is considered non-hazardous oilfield waste. I further certify that to the best of my
knowledge, no other material has been commingled with the exempt waste that
would otherwise cause the waste to be classified as "hazardous" by RCRA or any
other Federal, State or Local law, regulation or ordinance.
Signature and Pundan
Title Senior Compliance Engineer
11 D O Poy 1000 Farmington NM 97/100
Addres P.O. Box 4990, Farmington, NM 87499
Date October 29, 1993
Date octored ci 1110

Well Name or Lateral/Trunk	Meter Code	Operator Name	TN	Cool RG	rdinate SC	es Q	Type of Pit	Pit Size	GW Area	Land Type
or Lateral/Trunk	Code	Name	114	NG	30	u	OFFI	FR 3126	Vied	
Dur Nambar 00	••••								•	
Run Number 02 New Mexico A CM #1	73497	Meridian	29	12	16	Н	DEHY	14 x 14	Outside	Sti
		Meridian Meridian	29	12	16	. D	DEHY	21 x 21	Outside	C' -
New Mexico A CM #1E DK			29	12	16	L	DEHY	14 x 14	Outside	St: 2
Gallegos CU CM C #144	14041	Amoco Production	29	12	10	_	DENT	14 & 14	Outside	St:
Run Number 43									•	St
Rowland GC #1E DK	95328	Amoco Production	30	12	25	M	DEHY	12 x 12	Outside	Fé
New Mexico CM N #1	75439	Meridian	30	12	36	E	DEHY	12 x 12	Expanded	Fe
								•	•	Fe
Run Number 31										· [
Stanolind A #2	73883	Amoco Production	31	12	29	0	DEHY	15 x 15	Expanded	S
Stanolind A #1A MV	95122	Amoco Production	31	12	29	0	DEHY	24 x 24	Expanded	F
State GC BD #1	75042	Amoco Production	31	12	32	K	DEHY	15 x 15	Outside	S
Maddox B Fed CM #1	75241	Arco Oil and Gas	30	13	13	N	DEHY	15 x 15	Outside	F
Seven of Diamonds #2	94843	Dugan Production	30	13	2	1	LOC.	24 x 24	Outside	S
Maddox A Fed CM #1	75237	Meridian	30	13	11	М	DEHY	15 x 15	Expanded	Fee
State GC BE #1E	94380	Amoco Production	30	13	16	D	DEHY	24 x 24	Original	State
State GC BI #1E DK	94307	Amoco Production	30	13	16	Α	DEHY	24 x 24	Outside	State
State GC BE #1	73832	Amoco Production	30	13	16	N	DEHY	15 x 15	Original	State
State GC M #1A	90003	Amoco Production	31	12	16	1	DEHY	24 x 24	Expanded	State
Lateral 5A-4 Line Drip	N/A	EPNG	30	13	14	K	LINE	20 x 20	Expanded	Fee
State GC BI #1	75424	Amoco Production	30	13	16	F	DEHY	15 x 15	Expanded	State
		•								•
Run Number 22	:									
Jacquez Com #1	71899	Snyder Oll Corp.	31	13	2	K	DEHY	12 x 12	Original	Fee
Jacquez Com #1A	90183	Snyder Oil Corp.	31	13	2	F	DEHY	12 x 12	Original	Fee
Montoya #1	71900	Snyder Oil Corp.	32	13	35	E	DEHY	14 x 14	Original	Fee
Run Number 23										
Mesa CPD	02643	Conoco-Mesa Operating	30	14	33	0	LOC	15 x 09	Expanded	Fee 🎖
Mesa CM #2	90381	Conoco-Mesa Operating	29	14	2	Ā	LOC	15 x 15	Expanded	State
Mesa CM #1E	90887	Conoco-Mesa Operating	29	. 14	2	A	LOC	12 x 12	Expanded	State
Lateral 5A-11	N/A	EPNG	30	14	35		LINE	09 x 09	Expanded	Fee 🗵
Mesa Twin Mounds CM #3	95104	Walsh Engineering	30	14	30	L	LOC	12 x 12	Expanded	Fee
Mesa Twin Mounds 3D #1	03560	Walsh Engineering	30	14	30	D	DEHY	10 x 10	Outside	Fee
Lateral 5A-3	N/A	EPNG	30	13	19	P				
				Propo	sed P	it Clos	ures <i>Y</i>	Duster Pu	nd Touce	Fee # E 9/15/93
•		•		F	•		\mathcal{L}	injum "	04. 201	

Donny F. Phil 18 14 i TREALA EN VIRAN MENTAL JOB # 93043 EL PASO / BURLINGTE RINNING LOCATION TOT GARDAGE TICKETS DATE LOCATION CONT CONT BACK D Acre BACK (1) DUGAN PROD. CORP. COM # 1E 40 50 11-8-93 50 40 50 11-9-13 (2) 60 50 50 60 100 100 MAY BE SAM to cold Maine MESA CPD___ 11-10-93 (3) 100 100 100 100 200 200 1665 THRU 1668 11-10-93 (4) 20 20 220 2.00 LAD 5A-11 DICOLDINA VA (5) 80 80 80 300 280 11-11-93 80 STATE 2CB1 #1 1671 THAU 1674 W 1675 11-15-93 (6) 80 80 80 380 360 80 1580 THEU 1582 STATE 9438 390 408 (7) 28 28 30 MADDOX 30 1583 - 1584 11-15-93 498 480 11-16-93 90 90 90 90 (8) STANDOLIND AIA 95122 1585-1584 11-17-93 60 70 558 550 (9) 70 60 STANBOUND 1587 THE 1590 598 50 50 11-18-93 (10) 40 1591-1592 40 NEW MEXICO COM W/ (11) (12) (13) (14) NOTE: ALL LOCATIONS LISTED ABOVE (15) ARE PER DRIVERS REPORTING, AND (11) ARE AS SHOWN ON COAD TICKETS. MAR 2 2 1994 (11) DIV JON. (M) dist. 2 (11) (50) (21) (22) (23) (24) 3-16-94 (25) (26) 27 (Z8) (21)







OIL CON. DIV.

To: Denny Foust

Date: 3-25-94

From: Ricky Cosby

RE: Locations of Pilot Pit Closure Study with Soil taken to Tierra Environmental for Land Farming From EPNG's Kutz Pipeline District

	Well Name	Operator Name	Q	SC	TN	RG
40cy	New Mexico Com N #1	Meridian Oil	E	36	30	12
40cy	Stanolind A#2	Amoco	0	29	31	12
90cy	Stanolind A#1A	Amoco	0	29	31	12
28cY	Maddox A Fed Com #1	Meridian Oil	M	11	30	13
2867 8004	State GC BE #1E	Amoco	0	16	30 .	13
80CY	State GC BI #1	Amoco	F	16	30	13
100cy	Mesa CPD	Dugan	0	33	30	14
4004	Com #1E	Dugan	Α	2	29	14
80cy	Lateral 5A-11	EPNG		35	30	14

If you have any further questions please contact me at 599 - 2158.

Rily luly

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	I xxxxxxxxxxxxxxxxxxxxxxxxxxxx				
1. RCRA Exempt: 口 Verbal Approval Received: Yes 口 No 四	4. Generator Sunterra Gas Processing Co.				
2. Destination Tierra Environmental Corp Crouch Mesa Landfarm Facility - SE ¹ / ₄ SEc.2-T29N R12W	5. Name of Originating Site Kutz Plant Sec.13 T28N R11W				
3. Address of Facility Operator 909 West Apache Farmington, NM 87401	6. Name of Transporter Owner - Client Transports				
7. Location of Material (Street Address or ULSTR) Section 13 - T28N - R11W San Juan County	8. State New Mexico				
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.					

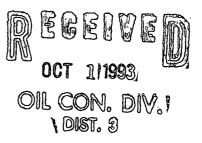
C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

CONDITIONS OF APPROVAL, IF ANY:

Cooling Tower Basin Mud and Iron Sponge Waste Blow Down



Estimated Volumecv Known Volume (to be entered by the operator at the end	of the haull:69
I hereby certify that the information above to true and complete to the best of my knowledge and belief.	
SIGNATURE Stilly C. Yol TITLE Vice President	DATE 09-30-93
TYPE OR PRINT NAME Phillip C. Nobis TEL	EPHONE NO. (505) 325-0924
(This space for State Use)	
APPROVED BY Demy J. Fourt TITLE GeologIST	DATE 10-1-93
APPROVED BY Since Breed TITLE Geof	DATE <u>/0-1-9'3</u>



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

CERTIFICATE OF WASTE STATUS EXEMPT OILFIELD WASTE

Site: (Include Name, Section, Township, Range, 1/4, etc.)
SUNTERRA GAS PROCESSING CO
1MIRA 36-42-11N 107-59-24W
KUTZ PLANT SI3-T28XI-RIIW
This material originated:
In The State of New Mexico
From the State of . Letter from the Regulatory
Agency having jurisdiction therefore is attached.
Source: COO/149 TOWER BASIN MUD & TRON
Sponge Waste Mow Down
Destination: Tierra Environmental Corporation
Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 West
NMPM
San Juan County, New Mexico
I DEHVER BEARDEN
1 1/0170010 1/16/1/2017
representative for SUNTIFRA GIAS WARRESTHO (0)
representative for SUNTERRA GAS PROCESSING CO.
representative for SUNTERRA GAS PROCESSING Co.
representative for SUNTERRA GAS PROCESSING CO.
do hereby certify that the waste described above is material that is exempted from
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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1. RCHA Exempt: Non-Exempt:	4. Generator
Verbal Approval Received: Yes COMSERVA NONDOIVISION	
RECE VED	Williams Field Services
2. Destination '93 AUS 19 AM 8 53	5. Name of Originating Site
Tierra Crouch Mesa Landfarm	32-9 Central Delivery Point
3. Address of Facility Operator	6. Name of Transporter
188 Co. Road 4900, Bloomfield, NM 87413	C, F & M
7. Location of Material (Street Address or ULSTR)	8. State
Section 15, T31N, R10W, San Juan County	New Mexico

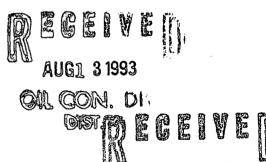
9. Check One

- a. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
- 8. All requests for approval to accept non-cilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.
- C. All requests for approvel to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil and drip, condensate, hydrocarbons. Lab analysis and generator certification letter attached.



SEP 2 8 1993

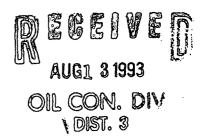
Estimated Volume	12	y Known Volume (to	be entered by the operator at	the end of the haul):	7 /	IL CON. DIV
SIGNATURE	ation above is true and com	plate to the best of my know	Nice President		DA ⁻	те_8-13-93
TYPE OR PRINT NAME	Phil Nobis			TELEPHONE NO.	325-0	924
(This space for State Use) APPROVED BY	my 2	, Found TI	TLE <u>Geol</u>	os ist	DATI	8/16/93
A PROPOVED BY	$P(P(C_{-}))$	71	TIE COOPE	15	DAT	· 8/27/93

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxxx				
1. PCRA Exempt: D Non-Exempt: D	4. Generator				
Verbal Approval Received: Yes □ No ☒					
	Williams Field Services				
2. Destination	Name of Originating Site				
Tierra Crouch Mesa Landfarm	32-9 Central Delivery Point				
3. Address of Facility Operator	6. Name of Transporter				
188 Co. Road 4900, Bloomfield, NM 87413	C, F & M				
7. Location of Material (Street Address or ULSTR)	8. State				
Section 15, T31N, R10W, San Juan County	New Mexico				
9. <u>Check One</u>					
A All requests for approval to accept cilifield exempt wastes will be accompanied by a cartification of wester from	om the Generator, one partificate partial				
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BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil and drip, condensate, hydrocarbons. Lab analysis and generator certification letter attached.



Estimated volume	.2		ed by the operator at the end of the haul):	су
SIGNATURE	tion above is true and co	TITLE Vice	President	DATE 8-13-93
TYPE OR PRINT NAME	Phil Nobis		TELEPHONE NO.	325-0924
(This space for State Use)				·
APPROVED BY		TITLE		DATE
APPROVED BY		TITLE	·	DATE



MANZANARES DISTRICT 188 ROAD 4900 P.O. BOX 215 BLOOMFIELD, NM 87413 505-632-4630 FAX: (505) 632-4781

August 11, 1993

June 24, 1993

Tierra Environmental Corporation Landfarm Division 909 W. Apache Farmington, NM 87401

RE: Disposal of Contaminated Materials from 32-9 Central Delivery Point, Section 15, T31N, R10W, NMPM, San Juan County, New Mexico

Gentlemen:

Attached hereto are the analytical testing results from On Site Technologies, LTD. laboratory for materials removed from the gathering station at the 32-9 Central Delivery Point east of Farmington, New Mexico.

Per the regulations of the New Mexico Oil Conservation Commission, these materials have been laboratory tested for hazardous characteristics; ignitability, corrosivity, reactivity, and toxicity and found to be nonhazardous. The materials should be considered as non-hazardous oilfield waste and not subject to the restrictions placed upon listed on characteristic hazardous wastes.

If you have any questions, please contact me at (505) 632-4630.

Sincerely.

Jim West Superintendent, Manzanares District

Williams Field Services

encl.



TOTAL PETROLEUM HYDROCARBONS

Attn:

Mr. Wayne Strong

Company: Address:

Williams Field Service

P.O. Box 215

City, State: Bloomfield, N.M. 87413

Hart Canyon Compressor Station

Project Name: Project Location:

Spill Site

Sampled by:

GL

GL

Date: Date: 6/23/93 6/23/93 Time:

Date:

Lab ID:

Sample ID:

1010

6/23/93

1170

#0360

Analyzed by: Type of Sample:

Soil

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Hart Canyon Compressor Station	
0360-1170	Spill Site	44400 ppm

EPA 418.1 Total Petroleum Hydrocarbons Method -



PRIORITY POLLUTANTS / AROMATIC VOLATILE ORGANICS

Attn:

Mr. Wayne Strong

Date:

6/23/93

Company:

Williams Field Service

Lab ID:

1170

Address:

P.O. Box 215

Sample ID:

#0361

City, State: Bloomfield, NM 87413

Project Name:

Sampled by:

Hart Canyon Compressor Station

Project Location:

Spill Site

GL

Date: Date: 6/23/93 6/23/93

Time:

1011

Analyzed by: Sample Matrix: DC Soil

Arometic Volatile Organics

Component	**Measured Concentration ug/L			
Benzene	ND			
Toluene	17			
Chlorabenzene	ND			
Ethylbenzene	14			
m,p-Xylene	28			
o-Xylene	333			
1,3-Dichlorobenzene	31			
1,4-Dichlororbenzene	ND			
1,2-Dichlorobenzene	2883			
	TOTAL 3306			

ND - Not Detectable

** - Method Detection Limit, 4.0 ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography



TCLP - PRIORITY POLLUTANTS / METALS

Attn:

Phil Nobis

Company:

Tierra Environmental Corporation

Date:

7/6/93

Address:

909 West Apache

Lab ID:

1179

City, State: Farmington, NM 87401

Sample ID:

Time:

#0397

Project Name:

Hart Canyon Compressor Station Soil - Composite

Project Location:

Tierra Landfarm

Sampled by:

DC

Date: Date: 6/30/93

1340

Analyzed by:

Type of Sample:

TW Soil 7/6/93

Analyte		Measured Concentration	Detection Limit	
Barium	Ва	<0.03 ppm wt.	0.03 ppm wt.	
Cadmium	Cd	<0.03 ppm wt.	0.03 ppm wt.	
Chromium	Cr	<0.08 ppm wt.	0.08 ppm wt.	
Lead	Pb	<0.20 ppm wt:	0.20 ppm wt.	
Silver	Ag	<0.05 ppm wt.	0.05 ppm wt.	
Arsenic	As	<5 ppm wt.	5 ppm wt.	
Mercury	Hg	<0.5 ppm wt.	0.5 ppm wt.	
Selenium	Se	<5 ppm wt.	5 ppm wt.	

SW-846 EPA Test Methods for Evaluating Solid Waste / Metallic Analytes Method -Method 1311 Toxicity Characteristic Leaching Procedure

> Approved by: Date:

FAX: (505) 327-1496 • 24 HR. - (505) 327-7105 • OFF.; (505) 325-8786 3005 NORTHRIDGE DRIVE - SUITE F - P. O. BOX 2606 - FARMINGTON, NEW MEXICO 87499



SOIL ANALYSIS

Attn:

Phil Nobls

Date:

7/19/93

Company: Tierra Environmental Corporation

Lab iD:

1179

Address:

909 W Apache

Sample ID:

#0397

City, State: Farmington, NM 87401

Project Name:

Tierra Landfarm

Project Location:

Williams Field Service Hart Canyon 32-9 C.D.P.

Sampled by:

DC

Date:

6/30/93 Time:

1340

Analyzed by:

Core

Date:

7/15/93

Type of Sample:

Soil

Laboratory Analysis

Test Description	Result	Limits/ Dilution	Units of Measure	Test Method
Flammability Potential Screening	Positive		+ or -	ASTM D4982-89
Cyanide, Reactive (CN)	<5	5	mg/kg	EPA SW-846 7.3.3.2
Corrosivity by pH	8.6	0.1	pH units	EPA SW-846 9040
Sulfide, Reactive	<10	10	mg/kg	EPA SW-846 7.3.4.2



2 September 1993

Mr. Phil Nobis Tierra Environmental Corporation 909 W Apache Farmington, NM 87401

Dear Mr. Nobis,

Enclosed you will find the revised report for Sample ID# 0397-1179, Williams Field Service Hart Canyon 32-9 CDP. The Flammability Potential Screening method ASTM D4982-89 was corrected and replaced with EPA SW-846 Method 1010, Pensky-Martins Closed-Cup Method for Determining Ignitability.

Thank you for your patience in resolving this matter. If you have any other questions or problems please feel free to call me.

Sincerely,

David Cox



SOIL ANALYSIS.

Attn:

Phil Nobis

Date:

7/19/93

Company:

Tierra Environmental Corporation

Lab ID:

1179

Address:

909 W Apache

Sample ID:

#0397

City, State: Farmington, NM 87401

Project Name:

Tierra Landfarm

Project Location:

Williams Field Service Hart Canyon 32-9 C.D.P.

Sampled by:

DC

Date:

6/30/93 Time:

1340

Analyzed by:

Core

Date:

7/15/93

Type of Sample:

Soil

Laboratory Analysis

Test Description	Result	Limits/ Dilution	Units of Measure	Test Method
Flammability Potential Screening	Positive		+ or -	EPA SW-846 1010
Cyanide, Reactive (CN)	<5	5	mg/kg	EPA SW-846 7.3.3.2
Corrosivity by pH	8.6	0.1	pH units	EPA SW-846 9040
Sulfide, Reactive	<10	10	mg/kg	EPA SW-846 7.3.4.2

Approved by:

Date: 12/2/9

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1. RCRA Exempt: XX Non-Exempt: □	4. Generator
Verbal Approval Received: Yes	Nassau Resources
2. Destination	5. Name of Originating Site
Crouch Mesa Landfarm, Tierra Environmental Corporation	John A. Brimhall #1
3. Address of Facility Operator	6. Name of Transporter
909 West Apache, Farmington, NM 87401	Armenta
7. Location of Material (Street Address or ULSTR)	8. State
Sec 10, T29, R15W (NE-NE), San Juan County	New Mexico

9. Check One

- XIX A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
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All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

CONDITIONS OF APPROVAL, IF ANY:

Soil contaminated with crude oil, online production pit and line leak near wellhead.

DEGETVED SEP281993 OIL CON. DIV.'

Estimated Volume 500 cy Known	Volume (to be entered by the operator at th	ne end of the haul):	1722 a
SIGNATURESIGNATURE	of my knowledge and belief. TITLE <u>Vice President</u>		DATE 9-27-93
TYPE OR PRINT NAME Phillip C. Nobis		TELEPHONE NO	(505) 325-0924
APPROVED BY Jenny 3. Found	TITLE <u>Geologi</u>	st	DATE <u>9/28/93</u> DATE <u>9/28/93</u>



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

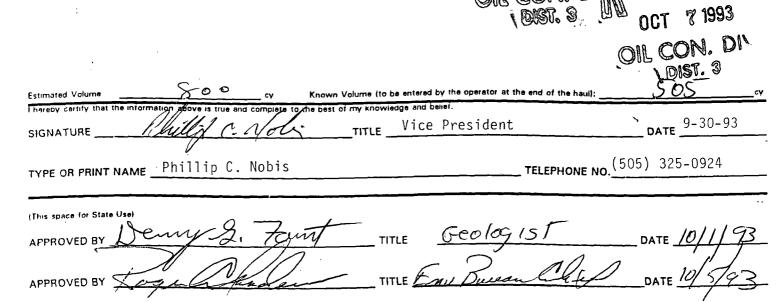
CERTIFICATE OF WASTE STATUS EXEMPT OILFIELD WASTE

This material originated: In The State of New Mexico From the State of	Son.	Luan Cour	ec 10=17 2	****		*. •
In The State of New Mexico From the State of			<u>'</u> .		<u> </u>	
From the State of	This material or	riginated:				
From the State of		v				
Agency having jurisdiction therefore is attached. Source: Destination: Tierra Environmental Corporation Crouch Mesa Landfarm Facility SE 1/4, Section 2, Township 29 North, Range 12 We NMPM San Juan County, New Mexico I Mark Brasel representative for Dassac Resource do hereby certify that the waste described above is material that is exempted fro regulation by the Resource Conservation and Recovery Act (RCRA) and considered non-hazardous oilfield waste. I further certify that to the best of n knowledge, no other material has been commingled with the exempt waste th would otherwise cause the waste to be classified as "hazardous" by RCRA or an other Federal, State or Local law, regulation or ordinance. Signature Much Brand Title	$\underline{\hspace{1cm}}$ In The St	ate of New Me	exico			
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Title Pro Superintendent	I Murphy representative for	NMPM San Juan	County, New M	exico		12 We
	do hereby certif regulation by t considered non- knowledge, no would otherwise	NMPM San Juan Resource y that the waste he Resource Chazardous oilfi other material cause the wast	e described above Conservation and eld waste. I further to be classified	is material the Recovery After certify the gled with the as "hazardou	at is exempt at to the best exempt with	ted from and st of maste that
	do hereby certif regulation by t considered non-knowledge, no would otherwise other Federal, Signature	y that the waste he Resource Chazardous oilfingther material state or Local length.	e described above Conservation and eld waste. I furth has been comminte to be classified aw, regulation or	is material th Recovery A ner certify the gled with the as "hazardou ordinance.	at is exempt at to the best exempt with	ted from

Koger A	levson				
REQUEST FOR APP. AL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxx				
	4. Generator				
Verbal Approval Received: Yes OIL (Nov SERVATION DIVISI	NRed Willow				
2. Destination	5. Name of Originating Site				
Crouch Mésa Landfarm, Tierra Environmental Corporation 9 01	Florida Mesa, Red Willow . Compressor Station #2				
3. Address of Facility Operator	6. Name of Transporter				
909 West Apache, Farmington, NM 87401	Site Reclamation Services				
7. Location of Material (Street Address or ULSTR)	8. State				
NW 1/4 NW 1/4 of Section 14, T33N, R9W, La Plata County	Colorado				
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.					
B. All requests for approval to accept non-cilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.					
All transporters must certify the wastes delivered are only those consigned for transport.					

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil, which has been exempted by characteristic analysis lab restuls, TCLP-Vol., Semi-Vol., metals, ignitibility, corrosivity, reactivity, Certificate of Waste Status signed by Generator, and letter from BIA, attached.



CONDITIONS OF APPROVAL, IF ANY:

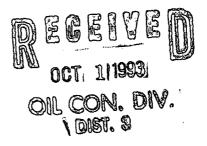
Note Flamability = talk to Bill olson OCRD

REQUEST FOR APPL AL TO ACCEPT SOLID WASTE 1. RCRA Exempt: Non-Exempt: Verbal Approval Received: Yes No No No No No No No N	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX					
2. Destination Crouch Mésa Landfarm, Tierra Environmental Corporation	5. Name of Originating Site Florida Mesa, Red Willow . Compressor Station #2					
 Address of Facility Operator 909 West Apache, Farmington, NM 87401 Location of Material (Street Address or ULSTR) NW 1/4 NW 1/4 of Section 14, T33N, R9W, La Plata County 	6. Name of Transporter Site Reclamation Services 8. State Colorado					
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job. C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.						

All transporters must certify the westes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil, which has been exempted by characteristic analysis lab restuls, TCLP-Vol., Semi-Vol., metals, ignitibility, corrosivity, reactivity, Certificate of Waste Status signed by Generator, and letter from BIA, attached.



		the the coerstor of	the end of the health
Estimated Volume Thereby certify that the information of the second seco	ation adove is true and complete to	Known Volume (to be entered by the operator at the best of my knowledge and ballet. TITLE Vice President	\ A AD AT
	Phillip C. Nobis		TELEPHONE NO. (505) 325-0924
(This space for State Use) APPROVED BY		TITLE	DATE
APPROVED BY		TITLE	DATE

CONDITIONS OF APPROVAL, IF ANY:

Sent Sunta Fe 10/1/93

CERTIFICATE FROM OUT OF STATE AGENCY

AUTHORIZING REMOVAL OF RCRA EXEMPT OILFIELD WASTE

FROM THEIR JURISDICTION TO NEW MEXICO

Red Willow Compressor Station No. 2 is non-hazardous and therefore exempt from regulation by Recovery Act (RCRA) and my jurisdictions rules, regulation of	and do	agree that urse Con	it the material	
The material is exempt from regulation because it is clawaste by definition.	assified as	non-haza	urdous oilfield	
XX The material is exempt from regulation by characteristic	ic analysi	s.	1	
The material is exempt from regulation by product idea	ntification	n .		
As a representative for Colorado 011 & Gas Commission objections to the material being removed to New Mexico.	•		have no	ı
Name: Jim Kenney	Title:	Sr. Peta 3 & Com	Heurn Engin Tration Commi	
Signature	Date_	SEP 3	v 1939	
Agency Colorado Oil & Gas Commission				
Address 1580 Logan, Suite 380, Denver, CO 80203				
Phone (303) 894-2100		•		٠.



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924 September 22, 1993

Mr. Jim Kinney Colorado Oil and Gas Commission 1580 Logan, Suite 380 Denver, Colorado 80203

RE: CLEAN UP OF COMPRESSOR STATION NO. 2 RED WILLOW OPERATING COMPANY, IGNACIO, COLORADO

Dear Mr. Kinney:

Enclosed please find a RCRA TCLP analysis taken from soil contaminated with compressor oil and other hydrocarbons generated at the Red Willow Compressor Station No. 2 in Ignacio, Colorado, located on fee land. The site is being cleaned up by On-Site Technologies of Farmington, N.M. and they wish to dispose of approximately 400 cubic yards of soil at the Tierra Crouch Mesa Landfarm Facility in San Juan County, New Mexico. The landfarm is permitted by the New Mexico Oil Conservation Division (OCD) Order No.R-9772 to accept Non-Hazardous Oilfield waste as defined by the Resource Conservation and Recovery Act (RCRA) or oilfield waste that is exempt from RCRA by characteristic analysis.

The OCD requires approval from the agency having jurisdiction if the material is brought in from either an indian reservation or from another state.

I have enclosed for your convenience a form entitled "Certificate from Out of State Agency" and a stamped pre-addressed envelope. If you concur with the laboratory analysis, identifying the material as non-hazardous, I would appreciate your cooperation by signing the form and returning it to me a 909 West Apache, Farmington, New Mexico 87401 at your earliest opportunity.

Thank you for your fine assistance with this and other matters. If you have any questions or require more information please call me at (505) 325-0924.

Sincerely,

TIERRA ENVIRONMENTAL CORPORATION

Phillip C. Nobis Vice President

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IERRA ENVIRONMENTAL CORPORATION

Originating

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tuisa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

CERTIFICATE OF WASTE STATUS NON-EXEMPT OILFIELD WASTE

Site: (Include Name, Section, Township, Range, 1/4, etc.)
Florida Mesa Red Willow Compressor Station #2
in the NW Y4NW Y4 of Sec. 14 T33N, R9W
La Plata County, Colorada
Source: Soil under and surrounding removed
Compressor and building, Fee Land
Particular Plana Parimonantal Communication
Destination: Tierra Environmental Corporation
Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 West
NMPM,
San Juan County, New Mexico
for Res Window PRADULTAN CA.
TOTAL ANDEN BUDY
the banks and the tracte described above is non executing to the
do hereby certify that the waste described above is non-exempt, according to the
Resource Conservation and Recovery Act (RCRA), but has been identified as
non-hazardous by characteristic analysis or by product identification.
Miles and the decrease time is because attached
The appropriate documentation is hereto attached.
Charles annualists (Ing/e)
Check appropriate line(s)
14876 Information
MSDS Information
RCRA TCLP Analysis
RCRA Metals
Corrosivity, Ignitability, Reactivity
Letter from Out of State Regulatory Agency
I further certify that there has been no change in the processes employed
or chemicals, stored / used at the facility generating the waste
since // 5 / 5 / 5
Signature C
V Title A
Title 177524519W.
Dava = /33/ /23
Date 5/20/23



LABORATORY 2 7 2 3 T RESULTS

09/24/93

TOR AUBIENCE MISSIS COSTERIO) COSTERIO) COSTERIO COSTE SELECTOR COSTERIO CO

CLIENT \$.D...... 0547-1250

r description	FINAL MEDICAL	CIMITS/PD) WILLOW	UNITS OF NEASONE	THE MEDICO	DATE	TE
mmsebility Potential Screening	Regative		+ or -	EPA 1010	09/16/93	G(
rrosivity by pH	7.5	0.1	pH units	EPA 5M-846 9045	09/16/93	M
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1733 MORTE PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2473

PAGE:2

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LABORATORY TESTS RESULTS 09/17/93

JOB HUMBER! 932192 CUSTOMER: ONSITE TECHNOLOGIES LINITED

ATTN: DAVE COX

CLIENT 1.D 0528-1246 PLET WILL W DATE SAMPLED.....: 09/10/93
TIME SAMPLED.....: 08:00
WORK DESCRIPTION...: 0528-1246



LABORATORY I.D...: 932192-0001 DATE RECEIVED...: 09/13/93
TIME RECEIVED...: 10:30
REMARKS.....: SAMPLED BY: C.G.

EST DESCRIPTION	FINAL RESULT	LIMITS/*DICUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECI
CLP Semivolatiles		*1		EPA SW-846 8270	09/15/93	GEF
1,4-Dichlarobenzena	<10	10	ug/L	EPA SW-846 8270		
2,4-Dinitrotoluene	<10	10	ug/L	EPA SW-846 8270	1	
Hexach Lorobenzene	<10	10	ug/L	EPA SW-846 8270	}	
Hexachlorobutediene	<10	10	ug/L	EPA SW-846 8270	[
Hexach Loroethane	<10	10	ug/L	EPA SW-846 8270	{	
Mitrobenzene	<10	10	ug/L	EPA SU-846 8270	i	
Pentachlorophenol	<50	50	Ug/L	EPA SW-846 8270	}	
2,4,5-Trichtorophenol	<10	10	n8\r	EPA SW-846 8270	ì	
2,4,6-Trichlorophenol	<10	10	ug/L	EPA SW-846 8270	j	
Pyridine	<10	10	Ug/L	EPA SW-846 8270	ì	
Cresols (Total)	<30	30	ug/L	EPA SW-846 8270		
CLP Volatiles		*10		EPA SW-846 8260	09/15/93	811
Benzene	<50	50	ug/L	EPA SV-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260	1	
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260	1	
Chloroform	<50	50	ug/L	EPA SW-846 8260	1	
2-Butanone	<100	100	ug/L	EPA SW-846 8260	1	
Trichloroethene	<50	50	Ug/L	EPA SW-846 8260	1	
Vinyl chloride	<40	40	ug/L	EPA SW-846 8260		
1,2-Dichloroethane	<50	50	ug/L	EPA SW-846 8260	1	
Tetrachioroethene	<50	50	ug/L	EPA SW-846 8260	}	
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA 54-846 3520	09/15/93	SEB
Glass Jar Extraction for Metals	Completed		<u>.</u>	EPA SW-846 1311	09/13/93	DC
Glass Jan Extraction-Semivolatiles	Completed			EPA SU-846 1311	09/13/93	DC
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	09/15/93	1EH
Barium (Ba), extractable TCLP	0.82	0.05	mg/L	EPA SW-846 6010	09/15/93	JEN
Cedmium (Cd), extractable TCLP	0.10	0.05	mg/L	EPA SW-846 6010	09/15/93	JEN
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	09/15/93	1E)
ead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	09/15/93	JEH
Belenium (Se), extractable TCLP	<0.05	0.05	img/L	EPA SW-846 6010	09/15/93	JEN

TESIS LABORATORY RESULTS 09/17/93

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT 1.D.....: 0528-1246 RETS WILLOW SITE AID . 2DATE SAMPLED....: 09/10/93
TIME SAMPLED....: 08:00

PRELIMIT HORK DESCRIPTION ...: 0528-1246

LABORATORY I.D...: 932192-0001 DATE RECEIVED...: 09/13/93 TIME RECEIVED...: 10:30

REMARKS..... SAMPLED BY: C.G.

TEST DESCRIPTION	INAL RESULT		HEASURE	ést hethad		**
Silver (Ag), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	09/15/93	
Flammability Potential Screening	Positive		+ or -	ASTM 04982-89	09/13/93	(
Corrosivity by pH	7.5	0.1	pH units	EPA SW-846 9045	09/14/93	ML
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	09/14/93	1.
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	09/13/93	CH
Zero Meadspace Extraction-Volatile	Completed			EPA SW-846 1311	09/13/93	DC

TIERRA ENVIRONMENTAL CORPORATION

INCIDENT REPORT

DATE:

October 5, 1993

JOB NO.

93054

CLIENT:

On-Site Tec./Red Willow No. 1

NECEIVE D

OIL CON. DIV.

NATURE OF INCIDENT:

Leaking barrel of unknown gray semi-liquid deposited on Crouch Mesa Landfarm, mixed in with soils from Red Willow No. 1, delivered by Site Rec. Truck No. 9, 9:00 a.m., 10/5/93.

NARRATIVE:

On October 5, 1993, at about 9:30 a.m., Tierra Landfarm Operator, Larry Hunter notified me via telephone that he had discovered a leaking 55 gallon barrel in Cell 3 at the landfarm. According to Hunter, the barrel had been partially buried in soil that had been delivered to the landfarm at about 9:00 a.m. by Site Rec. Truck No.9 and was from the Red Willow No.1 project being managed by On-site Technologies, our client. Hunter discovered the barrel while he was spreading the load, hitting the barrel with the teeth of his loader, puncturing it and causing it to leak a gray semi-liquid substance. No label was visible on the barrel.

I instructed Hunter to place some plastic liner into the secure area located in Cell 5 and berm it, then remove the barrel, the soil on which the semi-liquid had been spilled and place it in the berm, pending disposition.

At about 9:45 a.m., I received a call from Roger Anderson, Bureau Chief OCD Santa Fe, advised him of the situation with the barrel and further advised him of what I had instructed Hunter to do with the barrel and spilled contents.

Anderson advised that the procedure had been correct. He further advised that On-Site Tec. would be required to take samples of the material in the barrel and have the samples analyzed for TPH, Metals and volatiles. In the meantime the barrel would remain in the secure area in Cell 5 pending the results of the analysis. He advised that it was not necessary to contact NMED Hazardous Materials Bureau at this time. However if the lab results identified the contents as hazardous they would have to be notified.

At about 9:50 a.m., I contacted Cindy Gray at On-Site Tec and advised her of the situation re: the barrel. She agreed to accompany me to the landfarm and conduct an inspection. At about 10:30 a.m. we arrived at the landfarm. I observed that the barrel and about two (2) cubic yards of stained soil had been removed by Hunter to the bermed area in Cell 5, placed on plastic liner and also bermed as instructed. The barrel was not labeled, bent in the center, and about a six (6) inch square hole was visible in the top. It appeared to contain about five (5) gallons of a gray semi-liquid. After conversing with Anderson (OCD) via mobile phone, Gray took a sample of the semi-liquid from the barrel. I accompanied her to On-Sites Laboratory in Farmington, where she delivered the sample for analysis at about 11:45 a.m. that same date.

According to Gray, after I had called her about the barrel, she had contacted her Project Supervisor on location at Red Willow No.1. He explained that the barrel had been found on location and set aside earlier. Before the supervisor had arrived on location their loader operator had inadvertently loaded the barrel on Truck 9 along with several cubic yards of soil. He was not made aware of the mistake until the truck had already left Red Willow No.1 enroute to the Tierra Crouch Mesa Landfarm. Tierra however was never notified by anyone that the barrel was on the truck. It was discovered by Hunter only after he struck it with his loader at the landfarm.

By,

TIERRA ENVIRONMENTAL CORPORATION

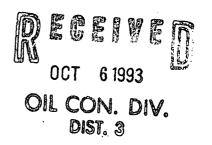
Phillip C. Nobis

Noger H	304				
REQUEST FOR APPARAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
1. RCRA Exempt: 口 Non-Exempt: 欧	4. Generator				
Verbal Approval Received: Yes OIL CONSERVATION DIVIS	ON Red Willow				
2. Destination	5. Name of Originating Site				
35 SE 75 VIII O	2Florida Mesa, Red Willow Compressor Station #1				
3. Address of Facility Operator	6. Name of Transporter				
909 West Apache, Farmington, NM 87401	Site Reclamation Services				
7. Location of Material (Street Address or ULSTR)	8. State				
NE 1/4, NE 1/4, Sec. 16, T33N, R9W, La Plata County	Colorado				
9. Check One					
A. All requests for approval to accept diffield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.					
B. All requests for approval to accept non-pilifield exempt wastes will be accompanied by a certification of waste status from the General and the blue					
Mexico Environment Department or other appropriate government agency; two certificates per job. XX C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.	1				
All transporters must certify the waster delivered					

All transporters must certify the wastes delivered are only those consigned for transpor

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil, which has been exempted by characteristic analysis lab results, TCLP-Vol., Semi-Vol., metals, ignitibility, corrosivity, reactivity, Certificate of Waste Status signed by Generator, and letter from BIA, attached.



				700	
Estimated Volume hereby certify that the informa	tion above is the and complete to the best of my	ne (to be entered by the operator at	the end of the haul):	350	cv
SIGNATURE		TLE <u>Vice President</u>		DATE _9-2	20-93
TYPE OR PRINT NAME	Phillip C. Nobis		_ TELEPHONE NO.	(505) 325-982	24
APPROVED BY	gellensen	TITLE GEOLO	_/	DATE <u>9/21</u>	1/93

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXX		
1. RCRA Exempt: ロ Non-Exempt: 以 Verbal Approval Received: Yes ロ No XX	4. Generator		
	Red Willow		
2. Destination Tierra Crouch Mesa Landfarm	5. Name of Originating Site Florida Mesa, Red Willow Compressor Station #1 6. Name of Transporter Site Reclamation Services 8. State Colorado		
3. Address of Facility Operator			
909 West Apache, Farmington, NM 87401			
7. Location of Material (Street Address or ULSTR)			
NE 1/4, NE 1/4, Sec. 16, T33N, R9W, La Plata County			
9. Check One			
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste state Mexico Environment Department or other appropriate government agency; two certificates per job. XX C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to pi	us from the Generator and the New		

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with compressor oil, which has been exempted by characteristic analysis lab results, TCLP-Vol., Semi-Vol., metals, ignitibility, corrosivity, reactivity, Certificate of Waste Status signed by Generator, and letter from BIA, attached.



Estimated Volume I hereby certify that the information above is to	rue and complete to the best	of my knowledge a	ered by the operator at the and belief.	e end of the haul):	
SIGNATURE	C. Noli.		ce President	0	ATE
TYPE OR PRINT NAME Philli	p C. Nobis			TELEPHONE NO. (505) 325-9824
This space for State Use) APPROVED BY	g. Four	TITLE	Geolog	ist DA	te <u>9/24/9</u> .
APPROVED BY		TITLE _		DA	TE

Sent Roger 9/27/93



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

SOUTHERN UTE AGENCY P.O. BOX 315 IGNACIO, COLORADO 81137

SEP 2 3 1993

Tierra Environmental Corporation Landfarm Division 909 W. Apache Farmington, NM 87401

> Re: Disposal of Contaminated Oilfield Materials from Florida Mesa Compressor Station #1, NENE Section 16, T33N-R9W, LaPlata County, Colorado

Gentlemen:

This letter is to authorize the removal and treatment of materials from the above referenced location operated by Red Willow Production Company, on the Southern Ute Indian Reservation.

Per the regulations of the New Mexico Oil conservation Commission, these materials have been laboratory tested for hazardous characteristics; ignitability, corrosivity, reactivity, and toxicity and found to be non-hazardous. The materials should be considered as non-hazardous oilfield waste and not subject to the restrictions placed upon listed or characteristic hazardous wastes.

All test data should be forwarded to the Southern Ute Environmental Office for their review. Your procedures for testing and handling of materials should comply with those currently outlined by BLM, New Mexico, regulations. You will also need to comply with any stipulations imposed by the Southern Ute Tribe.

If you have any questions, please contact our Realty Office (303) 563-4514.

Sincerely

-feting Superintendent

Eilen Candelaria



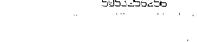
ENVIRONMENTAL CORPORATION

CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

CERTIFICATE OF WASTE STATUS NON-EXEMPT OILFIELD WASTE

Originating
Site: (Include Name, Section, Township, Range, 1/4, etc.)
Florida Mesa Red Willow Compressor Station #1
in the NEYU HEYU OF Sec. 16, TABN, R9W,
La Plata County, Colorado
Source: Soil under and surrounding removed
compressor and building, Southern Ute
Tribal hand
Destination: Tierra Environmental Corporation
Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 West
NMPM.
San Juan County, New Mexico
I Romanda T. En 19 Province representative
for RAD VILLEM REMOVEMENT OF
TRABAL ANALEX BLACK
do hereby certify that the waste described above is non-exempt, according to the
Resource Conservation and Recovery Act (RCRA), but has been identified as
non-hazardous by characteristic analysis or by product identification.
·
The appropriate documentation is hereto attached.
Check appropriate line(s)
MSDS Information
RCRA TCLP Analysis
RCRA Metals
Corrosivity, Ignitability, Reactivity
Letter from Out of State Regulatory Agency
I further certify that there has been no change in the processes employed
or chemicals stored, used at the facility generating the waste
since // f = 3
diameter of the state of the st
Signature 12
Title BARRATIONS MITE
1.1
Date 3/29/9 3







TESTS RESULTS LABORATORY

09/24/93

UCB HURBERY, 932218 CUSTCHERY, CHESTE TECHNOLOGIES SERIFED ATTN DAVE CON

CLIENT (.D.....: 0547-1250 DATE BAMPLED....: 09/15/93 TIME SAMPLED.....: 13:20 MORK DESCRIPTION...: 0547-1250

LABORATORY 1.0...: 932218-0002 DATE RECEIVED ...: 09/16/93 TIME RECEIVED: 09:15

REMARKS..... SAMPLED BY: D.C.

EST DESCRIPTION	FANAL REGULT	LIMITS/PDI LUTION	UNITE OF MEASURE	TEST HETHOS == 1	DATE
lammebility Potential Screening	Regative		+ or -	EPA 1010	09/16/93 00
corrocivity by pH	7.5	0.1	pH units	EPA 5H-848 9045	09/16/93 NL
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1733 HORTE PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2473

PAGE:2

108 HOMBER: 912218

CLIENT 1.D.

DATE SAMPLED.





CORE LABORATORIES

LABORATORY TESTS RESULTS 09/24/93

ALINA DAVE CON

LABORATORY I.D.: 93Z218-00D1 DATE RECEIVED...: 09/19/93 TIME RECEIVED...: 09:15

REMARKS SAMPLED BY: D.C.

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRIST!, TX 78408 (512) 289-2673

PLANS RESIDENCE PLANS RE
7.4 0.1 pH units BPA SH-846 9065 09/16/93 NLN

PAGE: 1



XOE HURBERY	912218	CONTON	R: O(SITE)	ECHWOLOGIES	LIMITED.	2000 Marie 10 10 10 10 10 10 10 10 10 10 10 10 10	ATTHE DAVE	con E	December 2009 1 40 CQ 27	Company of the second
	AHA	FA\$13			ICATES	RÉFERENCI	STANDARDS		MATRIX SPIKI	
TABE .	ANALYSIS SUS-TYPE	ANALYSIS L.D.	AMALYZED VALUE (A)	QUPLICATE VALUE (B)	RPD or ([A-B)	ANTINE ANTINE	PERCENT RECOVERY	ORIGINAL VALUE	ADDED	PERCENT RECOVERY
ARAMETER SE LEPORT I ROLL	gendility Bittof:	Patent (6) 5c: UNI 73:4 or	eenito	DATE/TIME N METHOD REFE	MAL 1760 18 97 16 Revice BPA 1	793 10:00 010		2000 2000 2000 2000 2000 2000 2000 200	SE DATCH	Leigh); 9464. Centclar: Si
UPLICATE	MD	932218-2	Megativa	Hegative	0					
ARAHETER CO	erorivity by Hinderori	P. UHATA:pH-u	olig:	DATE/TIME AI METHOD RETE	PALYZED D9/16 RENCE ÉPA S	/93 1150# GI-866 9940	Annual service of the control of the		og Batch	UMBER:96407 CRHICLANGE
itandard DPLICATE MPLICATE	KD KD ICV	1.81.16 932218-1 932218-1	7.0 7.4 7.5	7.4 7.4	0	7.0	100			
							:			

1733 MORTH PADRE ISLAMO DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

PAGE 23

is discerved one and moderial suspelled by the chieff for renote exclusive was confidently) see this report has been made. The interpretations or exercise exclusive exclusives with confident exclusives and confident exclu Of, assumed to remaining and copies as exercist as representation, as greece or implied, an by the productivity, proper operations, a predictioness or only oil, give, cold or The report of the region of th







TTIAND ASSURANCE FOOTER 09/24/93

Standard Mathods for the Examination of Nater and Maxtemator, 17th Ed. APHA,ANNA,MPCF. USEPA SN-846 3rd. Edition, Test Mothods for the Evaluation of Solid Meste EPA-600/4-79-020, Methods for the Analysis of Water and Wastes, March 1983 Federal Register, Friday, October 26, 1984 (40 CFR Part 136). EPA-600/2-78-054, Field and Laboratory Mathods Applicable to Overburdens and Minesolis.

Quality control acceptance critaria are method dependent. GCMS tuning criteria meat EPA CLP Statement of Work CLMD1.0. All data reported on sample "as received" unless noted, Sample IDs with a M-00H at the end indicate a blank apike or blank spike duplicate associated with the numbered sample. HC = Not Calculated dis to value at or below detection limit.

MOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.

The "TIME ANALYZED" in the DA Report refers to the start time of the enelytical batch which may not reflect the actual time of each enelysis. The "DATE AMALYZED" is the actual date of analysis.

> 1733 HORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

PAGE 14

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TCLP - PRIORITY POLLUTANTS / METALS

Attn:

Bob Zaradnick

Company:

Southern Ute Indian Tribe

Engrave Conserve a Division Trib

Date: Lab ID: 9/7/93

Address:

Energy Resource Division Tribal Annex Bldg.

Sample ID:

Time:

1239 #0519

P.O. Box 737 City, State: Ignacio, CO 81137

Project Name:

Red Willow Job No. 4-1010

Project Location:

Florida Compressor Station #1 Sec. 16 T33N R9W

Sampled by:

KH

Date:

9/1/93

1220

Analyzed by:

DC

Date:

9/3/93

Type of Sample:

Soil

	Measured	Detection
Analyte	Concentration	Limit
Barium Ba	1.2 ppm wt.	0.03 ppm wt.

Method - SW-846 EPA Test Methods for Evaluating Solid Waste / Metallic Analytes Method 1311 Toxicity Characteristic Leaching Procedure

Approved by: Date: 1/2/42



TCLP - PRIORITY POLLUTANTS / METALS

Attn:

Bob Zaradnick

Company:

Southern Ute Indian Tribe

Date:

9/7/93

Address:

Energy Resource Division Tribal Annex Bldg.

Lab ID:

1239

P.O. Box 737

City, State: Ignacio, CO 81137

Sample ID:

#0520

Project Name:

Red Willow Job No. 4-1010

Project Location:

Background - Florida Comp. Station #1 Sec. 16 T33N R9W

Date:

9/1/93

Time:

1230

Sampled by: Analyzed by: KH DC

Date:

9/3/93

Type of Sample:

Soil

Analyte		Measured Concentration	Detection Limit
Barium E	3a	1.1 ppm wt.	0.03 ppm wt.

Method -SW-846 EPA Test Methods for Evaluating Solid Waste / Metallic Analytes Method 1311 Toxicity Characteristic Leaching Procedure

FAX: (505) 327-1496 • 24 HR. -- (505) 327-7105 • OFF : (505) 325-8786

3005 NORTHRIDGE DRIVE • SUITE F. P. O. BOX 2606 • FARMINGTON, NEW MEXICO 87499

NOTE: ASTM D4982-89 is same as EPA Method 1010 P. William P. Phil

LABORATORY TESTS RESULTS

09/20/93

JOB NUMBER) 932218 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

CLIENT 1.D 0546-1250 RED WILLOW SITE NO. 1

DATE SAMPLED 09/15/93

TIME SAMPLED.....: 13:40 WORK DESCRIPTION...: 0546-1250

LABORATORY I.D...: 932218-0001

DATE RECEIVED ...: 09/16/93

TIME RECEIVED: 09:15

REMARKS..... SAMPLED BY: D.C.

ST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TEC
ammability Potential Screening	Negative		+ or -	ASTM 04982-89	09/16/93	GC
orrosivity by pH	7.4	0.1	pH units	EPA SW-846 9045	09/16/93	ML
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CORE LABORATORIES
ANALYTICAL REPORT

Job Number: 932027 Prepared For:

ONSITE TECHNOLOGIES LIMITED

DAVE COX
657 W. MAPLE
FARMINGTON, NM 87401

Date: 08/30/93

Signature Mygrax

8/30/93

Date:

Name: Chip Meador

CORE LABORATORIES

1733 NORTH PADRE ISLAND DRIVE

CORPUS CHRISTI, TX 78408

Title: Regional Manager



LABORATORY TESTS RESULTS

08/30/93

JOB NUMBER: 932027

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT 1.D...... 0472-1221 DATE SAMPLED: 08/12/93

TIME SAMPLED....: WORK DESCRIPTION ...: 0472-1221

LABORATORY I.D...: 932027-0001 DATE RECEIVED: 08/19/93 TIME RECEIVED: 10:15

REMARKS....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
TCLP Semívolatiles		*5		EPA SW-846 8270	08/27/93	GEF
1,4-Dichlorobenzene	<50	50	ug/L	EPA SW-846 8270		
2,4-Dinitrotoluene	<50	50	ug/L	EPA SW-846 8270	i	
Hexachlorobenzene	<50	50	ug/L	EPA SW-846 8270		
Hexachlorobutadiene	<50	50	ug/L	EPA SW-846 8270	1	
Hexachloroethane	<50	50	ug/L	EPA SW-846 8270	}	
Nitrobenzene	<50	50	ug/L	EPA SW-846 8270	}	
Pentachlorophenol	<250	250	ug/L	EPA SW-846 8270		
2,4,5-Trichtorophenot	<50	50	ug/L	EPA SW-846 8270	Ì	
2,4,6-Trichlorophenol	<50	50	ug/L	EPA SW-846 8270	Ì	
Pyridine	<50	50	ug/L	EPA SW-846 8270	j	
Cresols (Total)	<150	150	ug/L	EPA SW-846 8270		
CLP Volatiles		*10		EPA SW-846 8260	08/25/93	BJH
Benzene	<50	50	ug/L	EPA SW-846 8260	\	
Carbon Tetrachloride	<50	50	ug/L	EPA SW-846 8260	į.	
Chlorobenzene	<50	50	ug/L	EPA SW-846 8260	ł	
Chloroform	<50	50	ug/L	EPA SW-846 8260	ł	
2-Butanone	<100	100	ug/L	EPA SW-846 8260	j	
Trichloroethene	<50	50	ug/L	EPA SW-846 8260	1	
Vinyl chloride	<40	40	ug/L	EPA SW-846 8260	ļ	
1,2-Dichloroethane	<50	50	ug/L	EPA SW-846 8260	1	
Tetrachloroethene	<50	50	ug/L	EPA SW-846 8260		
1,1-Dichloroethene	<50	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 3520	08/25/93	SEB
Glass Jar Extraction for Metals	Completed			EPA SW-846 1311	08/19/93	DC
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	08/19/93	DC
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	08/26/93	JEM
Barium (Ba), extractable TCLP	1.11	0.05	mg/L	EPA SW-846 6010	08/26/93-	JEM
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	08/26/93	JEM
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	08/26/93	JEM
Lead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	08/26/93	JEM
Selenium (Se), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	08/26/93	JEM



LABORATORY TESTS RESULTS

08/30/93

JOB NUMBER: 932027

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D...... 0472-1221 DATE SAMPLED: 08/12/93

LABORATORY I.D...: 932027-0001 DATE RECEIVED: 08/19/93

TIME SAMPLED WORK DESCRIPTION ...: 0472-1221 TIME RECEIVED: 10:15

REMARKS.....

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILITION	UNITS OF MEASURE	TEST METHOD	DATE	TECHI
Silver (Ag), extractable YCLP		0.05		1 the graph to the second control of		
	<0.05]	mg/L	EPA SW-846 6010	08/26/93	JEM
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	08/26/93	JJP
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	08/19/93	CH
Zero Headspace Extraction-Volatile	Completed			EPA SW-846 1311	08/19/93	DC
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			u u A	LITY	08/30/93	N.CE RE	PORT			
JOB NUMBER:	932027	CUSTOME	R: ONSITE	TECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANA	TAS12		DUPL	ICATES	REFERENC	E STANDARDS		MATRIX SPIKE	E\$
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER:M REPORTING L	ercury (Hg), IMIT/DF: 0.0	extractable, 02 UNITS:mg/L	TCLP	DATE/TIME AN		26/93 15:44 SW-846 7470			a tana kata kata kata kata kata kata kat	UMBER:9450 CHNICIAN:J
BLANK STANDARD SPIKE DUPLICATE	MB RS MS MD	D1 H20 WP1085 932025-1 932025-1	<0.002 0.018 0.050 <0.002	<0.002	NC -	0.020	90	<0.002	0.050	100
PARAMÈTER:A REPORTING L	rsenic (As), IMIT/DF: 0.0	extractable UNITS:mg/L	TCLP			26/93 10:57 SW-846 6010	<u> </u>		나이 하는 이 사람들이 무슨	IUMBER:94505 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB CCV ICV MS MS MD	3010 B6079 QC19N 932002-004 932020-001 932020-001 932022-004	<0.05 4.82 0.92 0.46 0.50 <0.05	<0.05 <0.05	NC NC	5.00 1.00	96 92	<0.05 <0.05	0.50 0.50	92 100
\RAMETER:S	ilver (Ag), (MIT/DF: 0.0	extractable T UNITS:mg/L	CLP	DATE/TIME AN						UMBER:94505 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB CCV ICV PDS PDS MD PDD	3010 86079 0C-7 932002-004 932020-001 932020-001 932022-004	<0.05 4.87 0.98 1.64 2.19 <0.05 <0.05	<0.05 <0.05	NC NC	5.00 1.00	97 98	<0.05 <0.05	2.00	82 110
PARAMETER:88 REPORTING LI	rium (Ba), e MIT/DF: 0.05	extractable To UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER					 * * * * * * * * * * * * * * * * * * *	UMBER:94505 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE DUPLICATE	MB CCV ICV MS PDD	3010 B6079 QC-7 932002-004 932022-004	<0.05 4.99 1.00 2.92 2.46	2.49	1	5.00 1.00	100	2.46	0.50	92
PARAMETER:Ca	dmium (Cd), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	•				QC BATCH NU	 JMBER:94505 CHNIC#AN:JEI
BLANK STANDARD STANDARD SPIKE SPIKE	MB CCV ICV MS MS	3010 86079 9019N 932002-004 932020-001 932020-001	<0.05 5.04 1.01 0.46 0.49	<0.05	NC	5.00	101 101	<0.05 <0.05	0.50 0.50	92 98

PAGE:3

CORPUS CHRISTI, TX 78408

(512) 289-2673



JOB NUMBER:	932027	CUSTOME	R: ONSITE	TECHNOLOGIES	LIMITED		ATTN: DAVE	COX		A System
	ANAL	YS18		DUPL	ICATES	REFERENCE	STANDARDS	•	MATRIX SPIKE	
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER:Ca REPORTING LI	dmium (Cd), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	NALYZED:08/20		1			IUMBER:94505 CHNICIAN:JE
PARAMETER:Ch REPORTING LI	romium (Cr), MIT/DF: 0.05	extractable UNITS:mg/L	ŤCLP	DATE/TIME AN METHOD REFER	NALYZED:08/20 RENCE :EPA		I	1	the state of the state of the state of	UMBER:945058 CHNICIAN:JE
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB CCV ICV MS MS PDD	3010 86079 QC19N 932002-004 932020-001 932022-004	<0.05 5.05 1.00 0.45 0.45 <0.05 <0.05	<0.05 <0.05	NC NC	5.00 1.00	101 100	<0.05 <0.05	0.50 0.50	90 90
PARAMETER:Le	ad (Pb), ext MIT/DF: 0.05	ractable TCL UNITS:mg/L	P	DATE/TIME AN	NALYZED:08/20 RENCE :EPA :					UMBER:945059 CHNICIAN:JEN
PLANK ANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB CCV ICV MS MS MD PDD	3010 B6079 QC19N 932002-004 932020-001 932020-001 932022-004	<0.05 5.07 1.01 0.44 0.46 <0.05 <0.05	<0.05 <0.05	NC NC	5.00 1.00	101 101	<0.05 <0.05	0.50 0.50	88 92
PARAMETER:Se REPORTING LI	lenium (Se), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN			l	4	OCCOURT AND CONTRACT OF A STATE O	UMBER:945060 CHNICIAN:JEM
BLANK STANDARD STANDARD SPIKE SPIKE DUPLICATE DUPLICATE	MB CCV ICV MS MS MD PDD	3010 86079 0c19N 932002-004 932020-001 932020-001 932022-004	<0.05 5.04 1.04 0.47 0.42 <0.05 <0.05	<0.05 <0.05	NC NC	5.00 1.00	101 104	<0.05 <0.05	0.50 0.50	94 84
										-1

1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673

The artistytes represent enterpretations continued in this report are topical participated upon observations, and material supplied by the client for whose exclusive and confidential use this report has been made. The interpretations or opinion requirement from the first time transformation of the control of the production properties or implied to be the production properties, or productions and or interpretation of the control of the production production of the control of the production of the control of the



QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX-

TCLP Volatiles

DATE ANALYZED: 08/25/93 TIME ANALYZED: 14:34 METHOD: EPA SW-846 8260

QC NUMBER:945034

·		BLAN	l K S			
TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASURE
Vinyl chloride	MB	08/19/93	1	< 5	5	ug/l
	MB	08/20/93	1	<5	5	ug/l
	мв	08/25/93	1	<5 <5	5	ug/l
1,1-Dichloroethene	MB	08/19/93	1 1	l <5	5	ug/l
	МВ	08/20/93	1	<5	5	ug/l
9 B	мв	08/25/93	1 1	<5	5	ug/l
2-Butanone) мв	08/19/93	1	<10	10	ug/l
	MB	08/20/93	1 1	<10	10	ug/l
0h t	МВ	08/25/93	1 1	<10	10	ug/l
Chloroform	MB	08/19/93	1 1	< <u>5</u>	5	ug/l
	МВ	08/20/93	1 1	<5	5 5	ug/l
Canhan Yakasah (== 2 = 1	MB	08/25/93	1	<5	5	ug/l
Carbon Tetrachloride	MB	08/19/93	1	<5	<u>, 5</u>	ug/l
	MB	08/20/93	1	<5	5	ug/l
1,2-Dichloroethane	MB	08/25/93	1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5 5 5 5	ug/l
· , c-v rentor oethane	MB	08/19/93]	\ \S) 5 i	ug/l
	MB	08/20/93]	<5	5	ug/t
Benzene	MB	08/25/93	1	<5	5 5 5	ug/l
Benzene	MB	08/19/93]	<5	1 5	ug/l
	MB	08/20/93]]	(5)	2	lug/l
Trichloroethene	MB	08/25/93]	<5	5	ug/l
ii rentorbethene	MB	08/19/93]]) S	5	ug/l
	MB	08/20/93	1	<5	5	ug/l
Tetrachloroethene	MB	08/25/93]]	>	5	ug/l
retraciitorbethene	MB	08/19/93	1	5	5	ug/l
	MB	08/20/93		\	5	ug/l
Chlorobenzene	MB	08/25/93		\ \S	5	ug/l
CITOLOGENZENE	MB	08/19/93		(\(\)	5	ug/l
	MB	08/20/93] 1	<5 <5	5	ug/l
	МВ	08/25/93	'	>	5	ug/l
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QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 08/25/93 TIME ANALYZED: 14:34 METHOD: EPA SW-846 8260

QC NUMBER:945034

		REFERE	NCE ST	ANDARD	s			
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS 1. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
Dibromofluoromethane Toluene d-8 4-Bromofluorobenzene Vinyl chloride 1,1-Dichloroethene 2-Butanone Chloroform Carbon Tetrachloride 1,2-Dichloroethane Benzene Trichloroethene Tetrachloroethene Chlorobenzene	RS RS RS RS RS RS RS RS RS RS RS	B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12 B285.52.12		53 58 52 101 97 89 98 127 117 103 91 94	50 50 50 100 100 100 100 100 100 100 100	106 116 104 101 97 89 98 127 117 117 103 91 94	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
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REPORT ASSURANCE QUALITY

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 08/25/93 TIME ANALYZED: 14:34 METHOD: EPA SW-846 8260

QC NUMBER:945034

EST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION	ANALYZED VALUE	OR I GINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
Tetrachloroethene	MS MS MS	932033-1 932027-1 932033-1	1 1 1	1100 1030 930	0 0 0	1000 1000 1000	110 103 93	5 5 5	ug/l ug/l ug/l
Chlorobenzene	MS MS	932027-1 932033-1	1	1060 1030	0	1000	106 103	5 5	ug/l ug/l
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QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 08/25/93 TIME ANALYZED: 14:34 METHOD: EPA SW-846 8260

QC NUMBER:945034

		D	UPLICA	TES				
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS	DILUTION	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride 1,1-Dichloroethene 2-Butanone Chloroform Carbon Tetrachloride 1,2-Dichloroethane Benzene Trichloroethene Tetrachloroethene Chlorobenzene	MD MD MD MD MD MD MD	932032-1 932032-1 932032-1 932032-1 932032-1 932032-1 932032-1 932032-1	1 1 1 1 1 1 1 1 1	<5 <10 <5 <5 <5 <5 <5 <5	\$ \$10 \$ \$ \$ \$ \$ \$ \$ \$	NC NC NC NC NC NC	5 10 5 5 5 5 5 5 5	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
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ASSURANCE REPORT QUALITY

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

YCLP SEMIVOLATILES DATE ANALYZED: 08/27/93 TIME ANALYZED: 08:27 METHOD: EPA SW-846 8270 QC NUMBER:945098

	book	BLAI	1 K S			
TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS 1.D.	DILUTION FACTOR		DETECTION LIMIT	UNITS OF MEASUR
1,4-Dichlorobenzene	МВ	8/25/93	1	<10	10	ug/l
,4-Dinitrotoluene	MB .	8/25/93) 1	<10	10	ug/l
lexach l orobenzene	MB	8/25/93	1	<10	10	ug/l
lexachlorobutadiene	MB ·	8/25/93	1	<10	10	ug/l
lexachloroethane	MB	8/25/93	i	<10	10	
litrobenzene		0/25/93	· ·			ug/l
	MB	8/25/93	1	<10	10	ug/l
Pentachlorophenol	MB	8/25/93	1	<50	50	ug/l
2,4,5-Trichlorophenol	MB	8/25/93	1	<10	10	ug/l
2,4,6-Trichlorophenol	MB	8/25/93	1	<10	10	ug/l
yridine	MB	8/25/93	1	<10	10	ug/l
Cresols (Total)	MB	0/25/73	1	<30	30	
lesors (locar)	MB	8/25/93	'	\ \30	20	ug/L
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QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN:

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 08/27/93 TIME ANALYZED: 08:27 METHOD: EPA SW-846 8270

QC NUMBER:945098

		REFERE	NCE ST	ANDARD	\$			
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
2-Fluorophenol	RS	B285.57.16	1	180	200	90	10	ug/l
Phenol-d6	RS	B285.57.16	1	180	200	90	10	ug/l
Nitrobenzene-d5	RS	B285.57.16	(1	90	100	90	10	ug/l
2-Fluorobiphenyl	RS	8285.57.16	1	100	100	100	1 10	ug/l
2,4,6-Tribromophenol	RS	B285.57.16	1	210	200	105	10	ug/l
Terphenyl-d14	RS	B285.57.16	[1	100	100	100	10	ug/l
1,4-Dichlorobenzene	RS	B285.57.16	1	90	100	90	10	ug/l
2,4-Dinitrotoluene	RS	8285.57.16	[1	90	100	90	10	ug/l
Hexach Lorobenzene	RS	B285.57.16	[1	60	100	60	[10	ug/l
Hexachlorobutadiene	RS	8285.57.16	1	100	100	100	[10	ug/l
Hexachloroethane	RS	8285.57.16	1 1	80	100	80	10	ug/l
Nitrobenzene	RS	B285.57.16] 1	90	100	90	10	ug/l
Pentachlorophenol	RS	B285.57.16	1	80	100	80	50	ug/l
2,4,5-Trichlorophenol	RS	B285.57.16] 1	100	100	100	10	ug/l
2,4,6-Trichlorophenol	RS	B285.57.16] 1	110	100	110	10	ug/l
Pyridine	RS	B285.57.16) 1	90	100	90	10	ug/l
Cresols (Total)	RS	B285.57.16	1	250	300	83	30	ug/L
								· •
								ı :



QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES DATE ANALYZED: 08/27/93 TIME ANALYZED: 08:27 METHOD: EPA SW-846 8270

QC NUMBER:945098

			MATRIX	CDIV	E C			· · · · · · · · · · · · · · · · · · ·	
		· · · · · · · · · · · · · · · · · · ·	<u> </u>	SPIK	E 3	,	1 5 5 5		,
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP1KE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
2-Fluorophenol	МВ	932025-00	1	60	0	200	30	10	ug/l
	ss	932025-1	1 1	70	0	200	35	10	ug/l
	SS	932024-1	1	700	0	2000	35	10	ug/l
	SS	932027-1	1	70	0	200	35	10	ug/l
	SS	932032-1	1	90	0	200	45	10	ug/l
)	SS	932033-1	1	90) 0	200	45	10	ug/l
	SS	932034-1	1	110	0	200	55	10	ug/l
	SS	932035-1	1	90	0	200	45	10	ug/t
Į.	SS	932036-1	1	80	1 0	200	40	10	ug/l
Phenol-d6	MB	932025-00	1	90	0	200	45	10	ug/l
i ·	ss	932025-1	1	40	0	200	20	10	ug/l
	ss	932024-1	1	1100	0	2000	55	10	ug/l
	SS	932027-1	1	110	0	200	55	10	ug/l
•	SS	932032-1	1 1	120	0	200	60	10	ug/l
•	ss	932033-1	1 1	140	1 0	200	70	10	ug/l
_	ss	932034-1	1 1	140	1 0	200	70	10	ug/l
	ss	932035-1	1	120	0	200	60	10	ug/l
	SS	932036-1	1	120	0	200	60		ug/l
Nitrobenzene-d5	MB	932025-00	1	50	0	100	50		ug/l
	ss	932025-1] 1	80	lo	100	80		ug/l
ļ	ss	932024-1	1	640	. 0	1000	64		ug/l
	SS	932027-1	1 1	70	Ò	100	70		ug/l
Í	SS	932032-1	1	60	0	100	60		ug/l
	SS	932033-1	1	60	١٥	100	60		ug/l
	SS	932034-1	1 1	70	ا	100	70	10	ug/l
	SS	932035-1	1	60	1 0	100	60	10	ug/l
)	ss	932036-1	1 1	60	0	100	60	10	ug/l
2-Fluorobiphenyl	МВ	932025-00	l i	50	Ò	100	50		ug/l
, ,	SS	932025-1	1 1	80	lo	100	80	10	ug/l
	ss	932024-1	1 1	1100	0	1000	110	10	ug/l
•	ss	932027-1	1 1	70	0	100	70		ug/l
	ss	932032-1	1	70	0	100	70		ug/l
	SS	932033-1	1 1	90	0	100	90	10	ug/l
	ss	932034-1	1	70	0	100	70	10	ug/l
	ss	932036-1	1 1	60	lo	100	60	10	ug/l
2,4,6-Tribromophenol	мв	932025-00	1	110	1 0	200	55	10	ug/l
	ss	932025-1] 1	70	0	200	35	10	ug/l 🛥
ŕ	SS	932024-1	1	1400	0	2000	70	10	ug/l
1	ss	932027-1	1	140	0	200	70	10	ug/l
	SS	932032-1	1	120	0	200	60	10	ug/l
	ss	932033-1	1	160	0	200	80		ug/l
	ss	932034 - 1	1	150	0	200	75	10	ug/l
	ss	932035 - 1	1	120	0	200	60	10	ug/l
	ss	932036-1	1	140	0	200	70		ug/l
Terphenyl-d14	МВ	932025-00	1	60	0	100	60	10	ug/l
			}						[



QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN:

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 08/27/93 TIME ANALYZED: 08:27 METHOD: EPA SW-846 8270

QC NUMBER:945098

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EST ESCRIPTION	SUB-TYPE	ANALYSIS 1. D.	DILUTION	ANALYZED VALUE	ORIGINAL VALUE	SPIKE	PERCENT RECOVERY		UNITS OF MEASURE
	ss	932025-1	1	80	0	100	80	10	ug/l
	SS	932024-1	1 1	650	0	1000	65	10	ug/l
	SS .	932027-1	1	70	0	100	70	10	ug/l
	ss	932032-1	1	60) 0	100	60	10	ug/l
	ss	932033-1	1	70	0	100	70	10	ug/l
	SS	932034-1	1	80	0	100	80	10	ug/l
	ss	932035-1	1	60	0	100	60	10	ug/l
	ss	932036-1	1 1	60	0	100	60	10	ug/l
.4-Dichlorobenzene	MS	932025-1	1	90	0	250	36	10	ug/l
	MS	932024-1	li	1400	lo	2500	56	10	ug/l
	MSD	932024-1	\ i	920	lő	2500	37	10	ug/l
	MS	932027-1	1 i	140	٥	250	56	10	ug/l
	MS	932032-1		140	lő	250	56	10	ug/l
,4-Dinitrotoluene	MS] ;	200	Ö	250	80	10	ug/t
,4 Dim crococache	MS	932025-1		1800	0	2500	72	10	
		932024-1	1 1		0				ug/l
	MSD	932024-1	1 1	1700		2500	68	10	ug/l
	MS	932027-1	1 1	170	0	250	68	10	ug/l
A.A. Aranana	MS	932032-1	1 1	160	0	250	64	10	ug/t
exach l orobenzene	MS	932025-1	1	260	0	250	104	10	ug/l
	MS	932024-1	1	1900	0	2500	76	10	ug/l
	MSD	932024-1	1	2000	0	2500	80	10	ug/l
	MS	932027-1	1	190	0	250	76	10	ug/l
	MS	932032-1	1	170	0	250	68	10	ug/l
exachlorobutadiene	MS	932025-1	1	210	0	250	84	10	ug/l
	MS	932024-1	1	1800	0	2500	72	10	ug/l
	MSD	932024-1	1 1	1600	0	2500	64	10	ug/l
	MS	932027-1	1	190	1 0	250	76	1 10	ug/t
	MS	932032-1	1	180	0	250	72	10	ug/l
exachloroethane	MS	932025-1	1 i	70	0	250	28	10	ug/l
	MS	932024-1	1 1	1400	Ò	2500	56	10	ug/l
	- MSD	932024-1	1 i	890	Ö	2500	36	10	ug/l
	MS	932027-1	1 i	140	0	250	56	10	ug/l
	MS	932032-1	i	140	Ŏ	250	56	10	ug/l
itrobenzene	MS	932025-1) i	230	Ŏ	250	92	10	ug/l
Tel obenzene	MS	932024-1	1 1	1900	lő	2500	76	10	ug/l
•	MSD	932024-1	1 ;	1900	Ŏ	2500	76	10	ua/l
	MS			200	Ö	250	80	10	ug/t
	MS	932027-1	1	170		250	68	10	ug/t 🚤
entachlorophenol		932032-1	1	350	0	750	47	50	
encacintor optienot	MS	932025-1	1		0		51		ug/l
	MS	932024-1	1	3800		7500		50	ug/l
	MSD	932024-1	1 1	4100	0	7500	55	50	ug/l
	MS	932027-1	1	530	0	750	71	50	ug/l
	MS	932032-1	1	420	0	750	56	50	ug/l
,4,5-Trichlorophenol	MS	932025-1	1	710	0	750	95	10	ug/l
	l MS	932024-1	1 1	4700	0	17500	63	10	lug/l



QUALITY ASSURANCE REPORT

08/30/93

JOB NUMBER: 932027 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 08/27/93 TIME ANALYZED: 08:27 METHOD: EPA SW-846 8270

QC NUMBER:945098

			MATRI	K SPI	(ES			s de la company S years es	
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS 1. D.	DILUTION	ANALYZED VALUE	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
2,4,6-Trichlorophenol	MSD MS MS MS MS MSD MS MS	932024-1 932027-1 932032-1 932025-1 932024-1 932024-1 932027-1 932032-1	1 1 1 1 1 1 1	5000 530 530 270 1600 1900 210 210	0 0 0 0 0 0	7500 750 750 250 2500 2500 2500 250	67 71 71 108 64 76 84 84	10 10 10 10 10 10 10	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
Pyridine Cresols (Total)	MS MS MSD MS MS	932025-1 932024-1 932024-1 932027-1 932032-1	1 1 1 1 1 1	410 3600 2900 200 230	0 0 0	500 5000 5000 500	82 72 58 40 46	10 10 10 10 10	ug/l ug/l ug/l ug/l ug/l
(Total)	MS MS MSD MS MS	932025-1 932024-1 932024-1 932027-1 932032-1	1 1 1 1	530 5100 5100 560 460	0 0 0 0 0	750 7500 7500 7500 750 750	71 68 68 75 61	30 30 30 30 30 30	ug/L ug/L ug/L ug/L ug/L
	-								7 1
								·	



QUALITY ASSURANCE FOOTER 08/30/93

Standard Methods for the Examination of Water and Wastewater, 17th Ed. APHA, AWWA, WPCF. USEPA SW-846 3rd. Edition, Test Methods for the Evaluation of Solid Waste EPA-600/4-79-020, Methods for the Analysis of Water and Wastes, March 1983 Federal Register, Friday, October 26, 1984 (40 CFR Part 136). EPA-600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils.

Quality control acceptance criteria are method dependent.

GCMS tuning criteria meet EPA CLP Statement of Work OLM01.0.

All data reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

NC = Not Calculated due to value at or below detection limit.

NOTE: Data in QA report may differ from final results due to digestion and/or dilution of sample into analytical range.

The "TIME ANALYZED" in the QA Report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "DATE ANALYZED" is the actual date of analysis.



QC SAMPLE IDENTIFICATION

1. BLANKS	Method or Method / Type Reagent Initial Calibration Continuing Calibration Storage	MB or MB / type^ RB ICB CCB SB
2. STANDARDS	Laboratory Control Reference Initial Calibration Continuing Calibration	LCS RS ICV CCV
3. SPIKES	Matrix Blank Surrogate Post Digestion Spike Matrix Spike Duplicate	MS BS SS PDS MSD
4. DUPLICATES	Matrix Post Digestion Duplicate	MD PDD

[^] In the event that several different method blanks are analyzed, the blank type will be designated by the preparation method, i.e., ZHE, TCLP, 3010, 3050, etc.

Subcontracted Analysis Codes

Anaheim	*AN
Aurora	*AU
Casper	*CA
Houston	*HP
Lake Charles	*LC
Long Beach	*LB
Other Laboratories	*XX

^{*} The asterisk in the "TECHN" column signifies that the analysis was performed by a subcontract laboratory.

De analyses, operans or interpretations contained in this report are based upon observations and material supplied by the client for whose evolusive and confidential use this report has been made. The interpretations or opinions expressed represent the test publicated of Care Laboratories. Core Laboratories, however, assumed no organization of opinions was and or organizations express or implied to some productions, proper operations, or problems or opinions expressed representations.

	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
.T.	RCRA Exempt: Non-Exempt: Non-Exempt: Non-Exempt: No	4. Generator
`	Verbal Approval Received: Yes DIL CONSERVITON DIVISION RECEIVED	Williams Field Services
2.	Destination '93 SEP 13 AM 10 20	5. Name of Originating Site El Cedro Compressor
		Station
3.	Address of Facility Operator 909 West Aprich e P. O. Box 215 Plannfield NM 97/12 Farming ton 27/12	6. Name of Transporter
	P.O. Box 215, Bloomfield, NM 87413	Foutz Construction
7.	Location of Material (Street Address or ULSTR)	8. State
	Sec 31, T-29N, R-5W MP 101 Highway 64E, Rio Arriba Co.	New Mexico
9.	Check One	
	A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Go S. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status for Mexico Environment Department or other appropriate government agency; two certificates per job.	

C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with glycol that spilled from an open valve at a tank battery used to store glycol for the compressor station.



		Battana 3	
Estimated Volume 100	<u>) </u>	own Volume (to be entered by the operator at the end	of the haul): 45.5 cy
Thereby certify that the information SIGNATURE	nation above is true and complete to the b	TITLE Vice-President	DATE 8-30-93
TYPE OR PRINT NAME	Phillip C. Nobis	TEL	EPHONE NO. 325-0924
APPROVED BY APPROVED BY	_ //	TITLE Geologi.	
ROGER 9/	. IF ANY: 9/93 sen T		

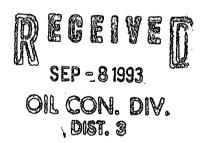
REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
1. *RCRA Exempt: D Non-Exempt: XX	4. Generator		
Verbal Approval Received: Yes □ No ☑	Williams Field Services		
2. Destination	5. Name of Originating Site El Cedro Compressor		
Tierra Crouch Mesa Landfarm	Station		
3. Address of Facility Operator	6. Name of Transporter		
P.O. Box 215, Bloomfield, NM 87413	Foutz Construction		
7. Location of Material (Street Address or ULSTR)	8. State		
Sec 31, T-29N, R-5W MP 101 Highway 64E, Rio Arriba Co.	. New Mexico		
9. Check One			
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from XB. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste a Mexico Environment Department or other appropriate government agency; two certificates per job.	tatus from the Generator and the New		

C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil contaminated with glycol that spilled from an open valve at a tank battery used to store glycol for the compressor station.



Estimated Volume 100cy Known Volume (to be entered by the operator at the	se end of the haulf:	су
SIGNATURE	DATE	8-30-93
TYPE OR PRINT NAME Phillip C. Nobis	TELEPHONE NO. 325	5-0924
APPROVED BY Deny g. Four TITLE Geologi	DATE	9/9/93
APPROVED BYTITLE	DATE	

CONDITIONS OF APPROVAL, IF ANY:

Roger 9/9/93 sent



CORPORATE OFFICE 6846 S. Canton, Suite 100 Tulsa, OK 74136 918-496-3200

REGIONAL OFFICE 909 W. Apache Farmington, NM 87401 505-325-0924

Date

TIERRA ENVIRONMENTAL CORPORATION

CERTIFICATE OF WASTE STATUS NON-EXEMPT OILFIELD WASTE

Originating
Site: (Include Name, Section, Township, Range, 1/4, etc.)
El Cedro Compressor Station
Section 31, Township 29 North, Range 5 West
Rio Arriba County, New Mexico
Source: Pull valve on a 300 bbl tank inadvertently left open and
Source: Pull valve on a 300 bbl tank inadvertently left open and 100-200 bbls of tri-ethylene glycol (TEG) spilled in containment
area but some TEG leaked onto the adjacent soil.
Destination: Tierra Environmental Corporation
Crouch Mesa Landfarm Facility
SE 1/4, Section 2, Township 29 North, Range 12 Wes
NMPM,
San Juan County, New Mexico
I Peter Kiech representative
for Williams Field Service
P. O. Box 215
Bloomfield, New Mexico 87413
do hereby certify that the waste described above is non-exempt, according to the
do hereby certify that the waste described above is non-exempt, according to the Resource Conservation and Recovery Act (RCRA), but has been identified a
Resource Conservation and Recovery Act (RCRA), but has been identified a
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification.
Resource Conservation and Recovery Act (RCRA), but has been identified a
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached.
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification.
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s)
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis RCRA Metals
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X_MSDS InformationRCRA TCLP AnalysisRCRA MetalsCorrosivity, Ignitability, Reactivity
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis RCRA Metals Corrosivity, Ignitability, Reactivity Letter from Out of State Regulatory Agency
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis RCRA Metals Corrosivity, Ignitability, Reactivity Letter from Out of State Regulatory Agency X I further certify that there has been no change in the processes employed
Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis RCRA Metals Corrosivity, Ignitability, Reactivity Letter from Out of State Regulatory Agency X I further certify that there has been no change in the processes employed or chemicals stored / used at the facility generating the waste
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Resource Conservation and Recovery Act (RCRA), but has been identified a non-hazardous by characteristic analysis or by product identification. The appropriate documentation is hereto attached. Check appropriate line(s) X MSDS Information RCRA TCLP Analysis RCRA Metals Corrosivity, Ignitability, Reactivity Letter from Out of State Regulatory Agency X I further certify that there has been no change in the processes employed or chemicals stored / used at the facility generating the waste since August 1992

WILLIAMS FIELD SERVICES COMPANY ONE OF THE WILLIAMS COMPANIES

SAN JUAN AREA OFFICE 186 ROAD 4900 P.O. BOX 215 BLOOMFIELD, NM 67413 505-632-4600 FAX: (505) 632-4781

August 25, 1993

Mr. Tony Tucker Tierra Environmental Corp. 909 West Apache Farmington, New Mex. 87401

Dear Tony:

Williams Field Services would like your assistance in the clean-up of a liquid spill at our El Cedro Compressor station. The pull valve on a 300 bbl tank containing tri-ethylene glycol (TEG) was inadvertently left open and an estimated 100-200 bbls of TEG leaked into the containment area. Some of the TEG escaped the containment berm onto the adjacent soil. All of the excess TEG has been vacuumed into a tank. The station is located in Rio Arriba County, New Mexico, at Section 31, Township 29 North, Range 5 West, milepost 101 on HWY 64 East.

Please provide a quote for washing the gravel inside the berm, cleaning contaminated soil beneath liner (if required), cleaning (or removal) of contaminated soil outside berm, and attaching liner to concrete walk.

Thank you for your assistance.

Sincerely,

Peter Kiech San Area Engineer

PK/pr

Williams Field Services # of pages ▶ 1

To lany Tucker From Peter Kiech

Co. Co. Williams Field Services

Dept. Phone #

Fax # 327 - 1471 Fax #

ERIAL SAFETY DATA SHEET

TRIETHYLENE GLYCOL 1 HMIS HEALTH HMIS FLAMMABILITY 0 HMIS REACTIVITY HMIS PERSONAL PROTECTION وي بيوريون بين ميروزيون على ما يراق والمراوز على المراوز المرا SECTION I - IDENTIFICATION DISTRIBUTED BY COASTAL CHEMICAL COMPANY, INC P.O. BOX 820 ABBEVILLE, LA 70511-0820 (318) 893-3862 EMERGENCY PHONE NUMBER... (318) 893-3862 OR CHEMTREC (800) 424-9300 EFFECTIVE DATE..... 02/26/90 MANUFACTURER'S NAME..... UNION CARBIDE DOW CHEMICAL . TEXACO DXY-FETROCHEMICAL TRADE NAME..... TRIETHYLENE GLYCOL CHEMICAL FAMILY..... POLYETHYLENE GLYCOL CAS NUMBER..... 112-27-6 CHEMICAL FORMULA..... C6H14O4 الإخلاق على الدائد العالمة من العلاقة المنافقة الم SECTION II - HAZARDOUS INGREDIENTS و بر بر الرباد الله و المواودة و الرباد الله و الرباد و الرباد الله و الرباد الله و الرباد الله و المواود و الرباد الله و المواود و الرباد و المواود و الرباد و المواو 'DOUS COMPONENTS TLV (Units) FROD. CAS # TRITETHYLENE 99 None 112-27-6 3LYCQL Established SECTION III - PHYSICAL DATA FREEZING POINT (F)..... -7 Deg. C., 19 Deg. F. VAPOR PRESSURE (mm Hg)... <1 mm μ APOR DENSITY (Air=1).... 5.2; air = 1 SOLUBILITY IN H20..... Completely soluble in all proportions APPEARANCE/ODOR...... Clear, colorless, viscous liquid with slight odor. SPECIFIC GRAVITY (H20=1). 1.1 @ 77 Deg. F., 25/25 Deg.C PH.......N/D و المراق والمراورة والمراو SECTION IV - FIRE AND EXPLOSION HAZARD DATA

LASH FOINT....... 350 Deg. F. LOWER FLAME LIMIT..... 0.9 TIGHER FLAME LIMIT..... 9.2 EXTINGUISH MEDIA..... Use water fog or spray, Alcohol Foam, Dry Powder, Carbon Dioxide (CO2). JNUSUAL FIRE MAZARD..... Containers may explode from internal pressure if confined to fire. Cool with water. Keep unnecessary people away. Approach fire from upwind side. Avoid breathing smoke ,fumes, mist or vapors on the downwind side.

MATERIAL SAFETY DATA SHEET TRIETHYLENE GLYCOL

SECTION V - HEALTH HAZARD DATA

BHOLD LIMIT VALUE.... Recommended 5 MG/M3 based on oil mist.

ROUTES OF ENTRY

INHALATION?

SKIN?

INGESTION?

Irritant

Mild irritant

Irritant

HEALTH HAZARDS..... ACUTE: Vapors or liquid may be irritating to skin. eyes, or mucous membranes. Avoid inhalation or skin/eye contact.

CARCINOGENICITY

MTP?

IARC MONDGRAPHS?

OSHA REGULATED

MO

NO

OVER EXPOSURE EFFECTS.... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.

FIRST AID PROCEDURES..... In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. If swallowed, do not induce vomiting, get immediate medical attention. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

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SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... Product is stable

CONDITIONS TO AVOID..... Heat may cause internal pressure which could rupture

container.

INCOMPATIBLE MATERIALS... Oxidizers or Oxidizing Materials.

DECOMPOSITION PRODUCTS... From fire; Smoke, Carbon dioxide, & Carbon Monoxide.

HAZARDOUS FOLYMERIZATION. Will not occur

FOLYMERIZATION AVOID.... None

SECTION VII - SPILL OR LEAK PROCEDURE

ور مورون و ورود ورود و FOR SPILL......... In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

WASTE DISPOSAL METHOD.... Industrial Waste. Follow Federal, State and Local

Laus-

SECTION VIII - SPECIAL PROTECTION

الله المالية الأعلام الأرام الترام الأرام الأرام الأرام الأرام الأرام الأرام الأرام الأرام الأرام الكرامة الأر

RESPIRATORY PROTECTION... When ventilation is not adequate, use of NIOSH approved organic vapor gas cartridge respirator is

recommended.

VENTILATION...... Required in closed areas

ME ANICAL EXHAUST..... Required in closed areas

LOURL EXHAUST..... Desired

PROTECTIVE GLOVES..... Wear impervious gloves

EYE PROTECTION....... Use chemical goggles or full face shield.

MATERIAL SAFETY DATA SHEET TRIETHYLENE GLYCOL

OTHER PROTECTIVE

EQUIFMENT..... Chemical type apron recommended

SECTION IX - SPECIAL HANDLING

HANDLING AND STORAGE.... Store away from oxidizers or materials bearing a yellow "DOT" label. Keep out of sun and away from heat. Clean up leaks immediately to prevent soil or

water contamination.

PRECAUTIONARY MEASURES... Avoid contact with skin, eyes, and clothing. After

handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in Section V. Use with adequate

ventilation.

MAZARD CLASS....... NON HAZARDOUS

DOT SHIPPING NAME..... CHEMICALS, NOS

REPORTABLE QUANTITY (RQ). None

UN NUMBER..... None

NA #..... None

PACKAGING SIZE........... N/A

SECTION X - REGULATORY

EPA IGNITABILITY..... NO

EPA REACTIVITY...... NO

EPA SUDDEN RELEASE OF

PRESSURE..... NO

CERCLA RQ VALUE..... None

SARA TPG..... None

SARA RQ..... None

SECTION 313................. No

EPA HAZARD WASTE #..... None

CLEANAIR...... Yes Section 111

CLEAN WATER..... No

FOOT NOTES N/A - not applicable N/D - no data available

< - means less than > - means greater than

App. - approximate Est. - estimated

PREPARED BY: Glen White, S.I.S., 817-560-4631

ERIAL SAFETY DATA SHEET TRIETHYLENE GLYCOL

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INTERPOLATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO WE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.

Willjams Field Serv	vices # of pages > 4		
TO TAN TUCKER	From Refer Kiech		
Co. /	Co. Williams Field Services		
Dept.	Phone #		
Fax # 327-1471	Fax #		

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxxxx			
1. RCRA Exempt: Non-Exempt:	4. Generator			
Verbal Approval Received: Yes 🂢 No □	Scurlack Permian			
2. Destination	5. Name of Originating Site			
Tierra Crouch Mesa Landform	Aneth Station			
3. Address of Facility Operator	6. Name of Transporter			
P.o. Box 3119 midland, Tex. 79702-3119 7. Location of Material (Street Address or ULSTR)	DAWN			
7. Location of Material (Street Address or ULSTR)	8. State SAN JUAN COUNTY,			
N/W 14 Sec 32 TWP405 Range 24E	Ntah			
9. Check One				
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.				
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.				
C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.				

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

Soil Contaminated with RCRA Exempt Crude Oil
At TANK BAttery.



Estimated Volume				rator at the end of the haul):	105
Thereby certify that the info	mation above is true an	d complete to the best of my know	ledge and belief.	Mesiden	DATE 8/12/95
TYPE OR PRINT NAMI	:			TELEPHONE NO	
(This space for State Use) APPROVED BY	amf g	· Fount	TLE Geo	ologist	DATE <u>8/13/9</u> 3
APPROVED BY	Juna,	Beach_T	ITLE <u>Se</u>	<u></u>	DATE
CONDITIONS OF APPROVA	L, IF ANY:				



DIVISION OF OIL, GAS AND MINING

Michael O. Leavill Covernor Ted Slawert Executive Director James W. Certer Division Director | 801-538-8318 (TDD)

365 West North Temple 3 Triad Center, Suite 360 Salt Lake City, Utah 84180-1203 801-858-6940 801-389-4940 (Pax)

August 12, 1993

Phil Nobis Tierra Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

Dear Mr. Nobis:

Re: Regulatory Status of Crude Contaminated Soil

As per your request, I have reviewed information sent to me concerning soil contaminated by crude oil at a location in Sec. 32, T406, R24E, San Juan, County, Utah.

The data provided shows the material to be below regulatory threshold TCLP levels. If this material was result of a spill prior to custody transfer to the transporter, it would also be exempt from RCRA Subtitle C.

If I can be of further assistance, please contact me.

Sincerely,

UIC Manager



SCURLOCK PERMIAN CORPORATION • WESTERN REGION OFFICE • 3705 EAST HWY 158 • 915/686-1700 P. O. BOX 3119 • MIDLAND, TEXAS 79702-3119 • FAX 915/683-8914

August 11, 1993

Tierra Environmental Farmington, New Mexico

Attention: Phil Nobis

Mike Harris

file

Per our telephone conversation with Mr. Shawn Adams of Flint Engineering, this letter is to inform you of the material that Scurlock Permian Corporation is delivering to your site.

Scurlock Permian Corporation has intent to deliver approximately 100 yards of oil field waste that was generated at our Aneth Station located in N/W 1/4 of Section 32, TWP 40 S Range 24-E, Survey SLM, San Juan County, State of Utah.

As stated in attached soil sample analysis from Southwestern Laboratories, this product in a nonhazardous material.

Thank you,

Bill Talle

Assistant Regional Manager Scurlock Permian Corp.

P.S. The soil was result of a Crude Oil spill at the above location

Committed to a Quality Environment

BT/mm

ÇÇ:

Subsidiary of Ashlend Off Inc.



SOUTHWESTERN LABORATORIES

1703 West Industrial Avenue * P.O. Box 2150, Midland, Texas 79702 * 915/683-3349

Client Scurlock Permian Corporation

P.O. Box 3119

Midland, Tx. 79702

Attn: Bill Talley

Project Bill Talley

Date Sa	mpled
Sample	Type Soil
P.O. #	

<u>Lab No.</u> M3-07-128-01

- T	

Client No. 6778300

Report No. M3-07-128

Report Date 08/02/93 09:42

Transported by Bill Talley

Date Received 07/19/93

Sampled By Client

Sample Identification Aneth Station

SOUTHWESTERN LABORATORIES

JACK H. BARTON

Order # M3-07-128

08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample: 01A Aneth Station

Collected:

				Detection	n <u>Date</u>	
Test Name	<u>Method</u>	<u>Result</u>	<u>Units</u>	Limit	<u>Started</u>	<u>Analyst</u>
FLAME/ICP PREP FOR WATERS	SW-846, 3010	07/20/93	Date		07/20/93	GMB
HYDRIDE DIGESTION	SW-846, 7061	07/20/93	Date		07/20/93	GMB
MERCURY DIGESTION	SW-846, 7470	07/20/93	Date		07/20/93	GMB
TCLP PREP.	SW-846, 1311	07/20/93	Date		07/20/93	GMB
TOT.PET. HYDROCARBONS SOIL	EPA 418.1	22200	mg/kg	5.0	07/21/93	SLS

Order # M3-07-128

08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample Description: Aneth Station

Test Description: TCLP BTEX

Lab No: O1A

Method: SW-846, 8020 Test Code: BTX_TC

Date Started

07/21/93 Detection Limit 0.004

Analyst Units

LWD mg/L

Method

SW-846, 8020

Compound

Results

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENE

< 0.004

Order # M3-07-128 08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample Description: Aneth Station

Test Description: TCLP METALS

Lab No: 01A

Method: SW-846

Test Code: TCLP_M

<u>Element</u>	Result	Regulatory <u>Limit</u>	Units	Date <u>Started</u>	Analyst	Method
TCLP METALS						
ARSENIC	< 0.1	5.0	_mg/L	07/22/93	<u>GMB</u>	SW-846, 7061
BARIUM	2.5	100	<u>mg/L</u>	07/22/93	<u>GMD</u>	SW-846. 7080
CADMIUM	< 0.1	1.0	mg/L	07/22/93	GMB	<u>sw-846, 7130</u>
CHROMIUM	< 0.2	5.0	mg/L	07/22/93	GMB	SU-846, 7190
LEAD	< 0.5	5.0	<u>mg/L</u>	07/22/93	<u>GMB</u>	SW-846, 7420
MERCURY	< 0.01	0.20	mg/L	07/22/93	GMB	SU-846, 7470
SELENIUM	≺ 0.1	1.0	mg/L	07/22/93	GMB	SW-846, 7741
SILVER	< 0.1	5.0	mg/L	07/22/93	GMB	SW-846, 7760



SOUTHWESTERN LABORATORIES

1703 West Industrial Avenue * P.O. Box 2150, Midland, Texas 79702 * 915/683-3349

Client No. 6778300

Report No. M3-07-128 Report Oate 08/02/93 09:42

Client Scurlack Permian Corporation

P.O. Box 3119

Midland, Tx. 79702

Attn: Bill Talley

Project Bill Talley

Data Sampled _

Sample Type Soil

Sampled By Client

Transported by Bill Talley

Date Received 07/19/93

Lab No. M3-07-128-01 Sample Identification

Aneth Station

JACK H. BARTON

SOUTHWESTERN LABORATORIES

4,4,4

Order # M3-07-128

08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample: 01A Aneth Station

Collected:

				<u>Detectio</u>	<u>n Date</u>	
Test Name	<u>Method</u>	Result	<u>Units</u>	<u>Limit</u>	Started	<u>Analyst</u>
FLAME/ICP PREP FOR WATERS	S V -846, 3010	07/20/93	Date		07/20/93	GM8
HYDRIDE DIGESTION	SW-846, 7061	07/20/93	Date		07/20/93	GM8
MERCURY DIGESTION	SW-846, 7470	07/20/93	Date		07/20/93	GMB
TCLP PREP.	SW-846, 1311	07/20/93	Date		07/20/93	GMB
TOT.PET. HYDROCARBONS SOIL	EPA 418.1 -	22200	mg/kg	5.0	07/21/93	SL5

Order # H3-07-128

08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample Description: Aneth Station

Lab No: G1A

Test Description: TCLP BTEX

Method: SW-846, 8020 Test Code: BTX_TC

Date Started

07/21/93 Detection Limit 0.004

Analyst Units

LUD

Method

54-846, 8020

mg/L

Compound

Results

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENE

< 0.004

17

Order # M3-07-128

08/02/93 09:42

TEST RESULTS BY SAMPLE

Client: Scurlock Permian Corporation

Sample Description: Aneth Station

Test Description: TCLP NETALS

Lab No: 01A

Method: SW-846

Test Code: TCLP_M

Element	<u>Resul t</u>	Regulatory <u>Limit</u>	Units	Date <u>Started</u>	Analyst	Hethod
TCLP METALS						
ARSENIC	< 0.1	5.0	mq/L	07/22/93	<u>GMB</u>	sw-846, 7061
BARIUM	2.5	100	mg/L	07/22/93	GMB ·	<u>sw-846</u> , 7080
CADMIUM	<u> < 0.1</u>	1.0	mg/L	07/22/93	<u>GMB</u>	sv-846, 7130
CHROMIUM	< 0.2	5.0	mg/L	07/22/93	GMB	su-846, 7190
LEAD	< 0.5	5.0	mg/L	07/22/93	GMB	SW-846, 7420
MERCURY	< 0.01	0.20	. <u>mg/L</u>	07/22/93	GMB	sw-846, 7470
SELENIUM	_ < 0.1	1.0	mg/L	07/22/93	<u>GMB</u>	su-846, 7741
ŞILVER	< 0.1	5.0	mg/L	07/22/93	GMB	SW-846, 7760

*BEGUES' FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXX
RCRA Exempt: Non-Exempt:	4. Generator
Destination TIERRA CROUCH MESA LANDFARM Address of Facility Operator 188 COUNTY ROAD, 4900 BLOOMFIELD, NM Location of Material (Street Address or ULSTR)	WILLIAMS FIELD SERVICES 5. Name of Originating Site HART CANYON COMPRESSOR STATION 6. Name of Transporter CONSOLIDATED 8. State
S-15, T32N, R30W, SAN JUAN COUNTY	NEW MEXICO
All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the frequests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste Mexico Environment Department or other appropriate government agency; two certificates per job.	
All requests for approval to accept non-oilfield exempt westes will be accompanied by a certification of waste Mexico Environment Department or other appropriate government agency; two certificates per job. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approach to transporters must certify the westes delivered are only those consigned for transport.	e status from the Generator and the New s to prove the material is non-hazardous oved.
All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste Mexico Environment Department or other appropriate government agency; two certificates per job. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be appropriate.	e status from the Generator and the New s to prove the material is non-hazardous oved. SSOR Oil & drip, condensate

Estimated Volume	12cy	Known Volume (to be ent	ered by the operator at the end	of the haul}:	су
Thereby certify that the inform	hilly C. John.		nd Belief. ce President	`	DATE 7-20-93
TYPE OR PRINT NAME	Phillip C. Nobis		TELI	EPHONE NO(5	05) 325-0924
(This space for State Use) APPROVED BY APPROVED BY CONDITIONS OF APPROVAL.	IF ANY. JANY. JANY.	TITLE _	<u>Geologi</u>	13 T	DATE <u>7/21/9</u> 3 _DATE

	A STATE OF THE STA	
200	REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.	RCRA Exempt: Non-Exempt:	4. Generator
	Verbal Approval Received: Yes □ No □	
		WILLIAMS FIELD SERVICES
2.	Destination	Name of Originating Site
	TIERRA CROUCH MESA LANDFARM	HART CANYON COMPRESSOR
	TIENNA CROUCH MESA LAMDEARM	STATION
3.	Address of Facility Operator	6. Name of Transporter
	188 COUNTY ROAD, 4900 BLOOMFIELD, NM	CONSOLIDATED
7.	Location of Material (Street Address or ULSTR)	8. State
	S-15, T32N, R30W, SAN JUAN COUNTY	NEW MEXICO
9.	Check One	

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

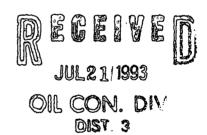
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.

C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

sent Roger 7/21/93

BRIEF DESCRIPTION OF THE MATERIAL: Soil contaminated with compressor oil & drip, condensate Hydrocarbons, at Williams Field Services, Hart Canyon Compressor Station. Lab Analysis & Certification letter attached.



			by the operator at the end of the haul):	су
SIGNATURE	nation above is true and complete by the be	TITLE Vice	President	DATE 7-20-93
TYPE OR PRINT NAME	Phillip C. Nobis		TELEPHONE NO.	(505) 325-0924
(This space for State Use) APPROVED BY	eny g. Jour	TITLE	Geologist	DATE 7/21/93
APPROVED BY		TITLE		DATE

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
1. RCRA Exempt: 凶 Non-Exempt: 囚	4. Generator				
· Verbal Approval Received: Yes □ No □					
	Williams Field Services				
2. Destination	5. Name of Originating Site				
Tierra Crouch Mesa Landfarm	Carracas C.D.P.				
3. Address of Facility Operator	6. Name of Transporter				
188 Co. Rd. 4900, Bloomfield, NM	Consolidated				
7. Location of Material (Street Address or ULSTR)	8. State				
S1/2 - NW1/4 Sec 34, T32N R5W Rio Arriba Co.	New Mexico				
9. Check One A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.					
B. All requests for approval to accept non-cilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.					
C. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.	the material is non-hazardous				

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL: Soil contaminated with F.CRA exempt condensate spilled at tank battery Carracas Mesa, NM.

AUG - 9 1993.
OIL CON. DIV.)
DIST. 3

Estimated Volume 200 cy Known Volume (to be entered by the operator at the	e end of the haul):cy
SIGNATURE	DATE 8-6-93
TYPE OR PRINT NAME Phil Nobis	TELEPHONE NO. 325-0924
APPROVED BY Deny J. Leut TITLE Geolog	1ST DATE 8/10/93
APPROVED BY Sund TITLE Leoko	9 cat DATE 8/10/93

CONDITIONS OF APPROVAL, IF ANY:



MANZANARES DISTRICT 188 ROAD 4900 P.O. BOX 215 BLOOMFIELD, NM 87413 505-632-4630 FAX: (505) 632-4781

August 6, 1993

Tierra Environmental Corporation Landfarm Division 909 W. Apache Farmington, NM 87401

RE: Disposal of Contaminated Materials from Carracas Mesa CDP Station

Gentlemen:

Attached hereto are the analytical testing results from On Site Technologies LTD laboratory for materials removed from the area of the condensate tank at the Carracas CDP Station east of Farmington, New Mexico.

Per the regulations of the New Mexico Oil Conservation Commission, these materials should be considered as exempt oilfield waste and not subject to the restrictions placed upon listed hazardous wastes.

If you have any questions, please contact me at (505) 632-4633.

Sincerely,

Jim West

Superintendent, Manzanares District

Williams Field Services

encl.

Williams Field Servic	From Robin Co. Williams Field Services Phone #
Dept.	Phone #
Fax #	Fax #



PRIORITY POLLUTANTS / AROMATIC VOLATILE ORGANICS

Attn:

Phil Nobis

City, State: Farmington, NM 87401

Date:

7/12/93

Company: Tierra Environmental Corporation

Lab ID:

1181

Address: 909 W Apache

Sample ID:

#0399

Project Name:

Williams Field Service

Project Location:

Carracas C.D.P.

Sampled by:

JW

Date:

7/1/93

Time:

1200

Analyzed by:

DC

Date:

7/12/93

Sample Matrix:

Soil

Aromatic Volatile Organics

Component	**Measured Concentration ug/L	
Benzene	· ·	· ND
Toluene		ND ND
Chlorobenzene	· · · · · · · · · · · · · · · · · · ·	-ND
Ethylbenzene		ND
m,p-Xylene		ND
o-Xylene		ND "
1,3-Dichlorobenzene		✓ ND
1,4-Dichlororbenzene		ND
1,2-Dichlorobenzene		ND
	TOTAL	0

ND - Not Detectable

- Method Detection Limit, 4.0 ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography



TCLP - PRIORITY POLLUTANTS / METALS

Attn:

Phil Nobis

Company:

Tierra Environmental Corporation

Address:

909 West Apache

City, State: Farmington, NM 87401

Date: Lab ID: 7/12/93

Sample ID:

1181 #0399

Project Name:

Williams Field Service

Project Location:

Carracas C.D.P.

Sampled by: Analyzed by: JW

TW

Date: Date: 7/1/93 7/7/93 Time:

1200

Type of Sample:

Soil

Analyte		Measured Concentration	Detection Limit
Barium	Ba	<0.03 ppm wt.	0.03 ppm wt.
Cadmium	Cd	< 0.03 ppm vvt.	0.03 ppm wt.
Chromium	Cr	<0.08 ppm wt.	0.08 ppm wt.
Lead	Pb	<0.20 ppm wt.	0.20 ppm wt.
Silver	Ag	<0.05 ppm wt.	0.05 ppm wt.
Arsenic	As	<5 ppb wt.	5 ppb wt.
Mercury	Hg	< 0.5 ppb wt.	0.5 ppb wt.
Selenium	Se	<5 ppb wt.	5 ppb wt.

SW-846 EPA Test Methods for Evaluating Solid Waste / Metallic Analytes Method -Method 1311 Toxicity Characteristic Leaching Procedure

> Approved by:/ Date:



TOTAL PETROLEUM HYDROCARBONS

Attn:

Phil Nobis

Date:

7/12/93

Company: Tierra Environmental Corporation

Lab ID:

1181

Address:

909 W Apache

City, State: Farmington, NM 87401

Project Name:

Williams Field Service

Project Location:

Carracas C.D.P. JW

Date:

7/1/93 Time:

1200

Sampled by: Analyzed by:

TW

Date:

7/4/93

Type of Sample:

Soil

Laboratory Analysis

Laboratory		Total Petroleum	
Identification	Sample Identification	Hydrocarbons	
	Williams Field Service		
0399-1181	Carracas C.P.D.	22,300 ppm wt.	

Method -EPA 418.1 Total Petroleum Hydrocarbons

Approved by:/

Date: