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REPORTS

DATE: Oct. 4-31, 1995

TIERRA ENVIRONMENTAL ENVIRONMENTAL COMPANY Inc.



" Because we do not innerit the earth from our parents... We borrow it from our children.."

VOLUNTARY CLEAN-UP OF CRUDE OIL TRANSFER FACILITY APACHE STATION SITE SE 1/4 - SEC 33 - T 25 N - R 6 W RIO ARRIBA COUNTY, NEW MEXICO

October 4 - October 31, 1995

P.O. DRAWER 15250 FARMINGTON, NEW MEXICO 87401-5250 (505) 334-8894 Fax (505) 334-9024

TABLE OF CONTENTS

1.0 SUMMARY OF ACTIVITY

- 2.0 LETTER TO BILL OLSEN OCD REQUESTING CLOSURE
- 3.0 Permits

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- 4.0 SITE DIAGRAMS
 - 4.1 Overall Diagram
 - 4.2 Lact Unit
 - 4.3 Transfer Point
 - 4.4 Storeage Tank Area
- 5.0 Lab Reports and Chain of Custody
 - 5.1 TCLP Soils
 - 5.2 TCLP Tank Bottoms
 - 5.3 TPH Bore Holes
 - 5.4 TPH Test Holes Around Tank
 - 5.5 TPH Closure Tank Pit #1
 - 5.6 TPH Closure Tank Pit #1/Lact Pit #1
 - 5.7 TPH Closure Lact Pit #2
 - 5.8 TPH Closure Tank Pit #4/#5
 - 5.9 TPH Closure Transfer Point
- 6.0 Stock Well Analysis
- 7.0 Site Photographs
- 8.0 Re-cycled Soils Documentaton

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SUMMARY OF ACTIVITY



TRONMENTAL COMPANY Inc. P.O. DRAWER 15250 FARMINGTON, NM 87401

VOLUNTARY CLEAN-UP OF CRUDE OIL TRANSFER FACILITY APACHE STATION SITE October 4-October 31, 1995

1.0

SUMMARY OF ACTIVITY

The Apache Station Crude Oil Transfer point is located at section 33, T-25N, R-6W, SE 1/4, approximately 9.5 miles east of Lybrook in Rio Arriba County New Mexico. The property is currently owned by Gary Williams Energy, but will be taken over by Giant Industries after the clean-up by Gary Energy. This is part of a purchase agreement between the two companies. The site consists of a bermed area housing a 10,000 barrel crude oil tank. To the south of the tank is an overflow berm area that according to information provided by Gary Williams Energy had previously contained three (3) five-hundred-twenty (520) barrel tanks, a Lact Unit and a transfer point. The tank itself was to be cleaned. Included in the project was the removal of any contaminated soils at the tank area, Lact Unit and transfer point as well as the backfill and compaction of any excavated areas.

A stock well was observed off location but in close proximity to the Lact Unit.

This was an area of concern and water samples were collected and analyzed by On-Site Technologies for BTEX and general water quality. Elevated levels of ph and sulfate as well as TDS exceeding New Mexico Water Quality Standards disgualified the well as a domestic water source. The BTEX analysis indicated no contamination present that would exceed New Mexico Water Quality Standards. (See enclosed analysis).

On October 4, 1995, Tierra Environmental Company Inc., represented by Phillip C. Nobis and Todd D. Nobis, Red Top Tanks, Safety Alliance and On-site Technologies deployed to the Apache Station Site. Red Top Tank and Safety Alliance were contracted by Tierra to clean the

inside of the 10,000 barrel tank. On-site was contracted by Tierra to drill test holes around the bermed area of the tank with a hollow stem auger to check for any migrating contamination from the bermed area. The tank and surrounding area has been utilized for crude oil storage and transfer for several years. The exact age of the tank itself is not known but is estimated to be over 25 years old.

On the same date, a site assessment was conducted pursuant to section 7d-IV-A-2a OCD Environmental Regulation. The site received a total ranking of 10, as the depth to ground water was 50-99 feet, over 1000 feet from a water source/over 200 feet from a private domestic water source over a 1000 feet from a surface water body. This allowed residual TPH levels in the 1000 ppm range.

A 400 bbl Frac Tank was taken to the site to store the tank bottom waste until results from a TCLP could be obtained. A TCLP sample was taken on October 4, 1995 and turned over to On-Site Tech for analysis. A TCLP sample of the soils was also taken that day and turned over to On-Site Tech. Four test holes were bored outside the bermed area of the tank. (See site diagram BH-1 thru BH-4)

Red top began the clean-out of the tank using water to break-up any solid substances in the tank. The used water and substance was then transferred to the on-scene frac tank where it remained unit results from the TCLP were obtained. On October 9, 1995, verbal permission from OCD was obtained and the contents of the frac tank were transported to Tierra's landfarm and placed into another 400 bbl frac tank. (TCLP results enclosed)

On October 10, 1995, initial excavation preparation was started at the tank. The decision was made to excavate around the tank in sections in order not to de-stabilize the tank. On October 11, 1995 three test holes were dug with a trackhoe around the tank in an effort to determine how deep any contamination may have migrated into the soil. The first test hole was done at the NE portion of the tank by the man way. The hole was constructed down approximately 8 feet and a grab sample was taken. The second hole was constructed at the SE portion of the tank. It was

also approximately 7-8 feet and a grab sample was obtained there as well as the W portion of the tank. Again a hole approximately 7-8 feet was constructed to obtain that test. These samples were then transported to On-Site Tech. for TPH analysis. After digging the test holes, excavation was started on the NE portion of the tank. Obvious contamination was observed to a depth of 12 feet. Excavation was stopped at a depth of 14 1/2 feet. A headspace test showed 0007 ppm. The pit was approximately 20 feet long and three closure grab samples were then taken from three different areas in the pit. These samples were also taken to On-Site Tech. for TPH analysis. All contaminated soils excavated were stored in a bermed area until approval was granted from OCD to transport them to Tierra's landfarm. Approval was granted on October 12, 1995.

On October 12, 1995 TPH results from the test holes were obtained and were as follows: NE-525 ppm, SE- 1025 ppm and W- 1024 ppm. TPH results from the closure samples on the first tank pit (Tank Pit #1) were also obtained and were as follows: #1- 29 ppm, #2- <25 ppm and #3- <25 ppm. Backfill was started on Tank Pit #1 and excavation was started on the Lact Unit area.

The Lact Unit excavation was done in two parts with Lact Pit #1 and Lact Pit #2. Lact Pit #1 consisted of a hole approximately 20 feet long and sloping to a depth of approximately 8 feet. Lact Pit #1 is the south side of the unit close to the old stock water well. TPH results from Lact unit Pit #1 were as follows: #1-370 ppm, #2-60 ppm, #3- 490 ppm.

Backfill of Tank pit #1 was completed and excavation was started on Tank Pit #2. Excavation on Tank pit #2 was also completed this day and TPH closure grab samples were taken. The pit was approximately 9 feet deep and 25 feet around the NE portion of the tank. A headspace reading of 0007 ppm was obtained with the PID. These samples were also taken to On-Site Tech for analysis.

Excavation was then started on the north side of Lact Pit #1 (Lact Pit #2). While excavating at Lact Pit #2, a dark gray, odorous, moist substance was encountered as well as a broken concrete slab that was saturated with contamination.

On October 17, 1995, while excavating at Lact Pit #2, a large sealed cylinder with three small pipes coming out of the top was uncovered. The cylinder appeared to have contained crude oil but was not attached to any piping. It is suspected that a prior lact unit was disassembled in place and the new one placed on top. A large six-inch line was also encountered approximately 4 feet from the surface. It had two flanged ends that were open and appeared to have also been leaking product. Lact Pit #2 was dug down to approximately 15 feet. Headspace tests showed a reading of 14 ppm on the east wall and 329 ppm on the south wall. Three closure grab samples were then taken from Lact Pit #2, the results of these were as follows: #1- 162 ppm, #2- 677 ppm, #3- <25 ppm.

Results from Tank pit #2 were obtained and were as follows: #1- 155 ppm, #2- 184 ppm, #3-115 ppm. Parts of the walls on Tank pit #2 had fallen in and were cleaned out. Tank Pit #2 was then backfilled and Tank pit #3 was started. On October 20, 1995, Tank pit #3 was completed and TPH closure samples were taken. Tank pit #3 measured approximately 12 feet deep and 30 feet long. Heavy dark gray, moist, obvious contamination was observed starting on the tank and migrating out approximately 7 feet and down to approximately 10 feet. Excavation was completed and a headspace test was taken at a depth of 12 feet, the results were 009 ppm. Two grab samples were then taken and transported to On-Site Tech. for TPH analysis.

Several test holes were dug with a backhoe in the tank overflow berm area to the south of the 10,000 barrel tank. They showed some obvious contamination in the berm itself. It appeared that the contamination that was in the bermed area had been removed and made into part of the existing berm. On October 23, 1995, Denny Foust from OCD arrived on scene to look at the site. He advised that his recommendation was that if the tank were to remain in place, that the

overflow berm should be left and not excavated. This recommendation was followed.

Backfill on the lact unit was started on Oct. 23, 1995. Also on that date, excavation began on the transfer station. Heavy contamination was observed 12 to 14 feet down. The main valve appeared to have been leaking product for quite some time.

On October 24, 1995, the TPH results on tank pit #3 were as follows: #1- 290 ppm, #2- 139 ppm. Excavation continued on the Transfer station. At a depth of 17 feet a Headspace reading of 268 ppm was obtained from the transfer station. Some surface contamination was observed to the east of the transfer pit and that was excavated off the surface at a depth of 2 to 3 feet. A Grab sample was taken from that area, the results were 980 ppm.

Excavation then began on Tank pit #4 and Tank pit #5, completing the excavation around the tank. Both pits were very small and extended approximately 4 feet from the tank and approximately 4 1/2 feet deep. Grab closure samples were then taken, the TPH levels were as follows: Tank pit #4- 61 ppm, Tank pit #5- 201 ppm.

Backfill was then started on the remainder of the tank area. Consultation was done with OCD and Gary Williams Energy regarding the depth and Practicality of excavating past the 17 foot level in the transfer station. A decision was reached to dig a test hole within the confines of the excavation until either the contamination stopped or until an impermeable layer was encountered. At a level of 24 feet, a heavy, compacted clay type material was encountered and the contamination appeared to stop at the clay type material. With the point source eliminated, the backfill was started. The backfill was done in two to three foot lifts with heavy compaction at each lift. Just prior to the backfill, four composite closure samples were taken from the transfer station pit, they were taken along each wall of the pit as well as a sample taken from the bottom of the 24 foot hole. The results of these were as follows: #1-1202 ppm, #2-721 ppm, #3-630 ppm, #4-345 ppm and the pit bottom (24' test hole) 714 ppm.

Through out this project several photographs of the different excavations were taken. Also on scene as a representative of giant was Sarah Kelly from Philip Environmental. She remained on scene from October 10, 1995 to October 16, 1995 and was in phone communication with Tierra as the project progressed. Tierra was informed by Philip Environmental that there would be no consulting between the two, that they were just observers representing Giant to insure that the closure was done to Giant's satisfaction.

The final area clean-up and backfill compaction was completed on November 1, 1995. Closure samples from the Transfer point are as follows: #1- 1202 ppm, #2- 721 ppm, #3- 630 ppm, #4- 345 ppm and sample from the 24 foot pit bottom 714 ppm. All contaminated soils from the excavation were disposed of at the Tierra Environmental Company Inc.'s landfarm on Crouch Mesa. All headspace tests done in the field were completed with a 580-B OVM PID.

Approximately 2,700 cubic yards of contaminated soil was removed from the site, following excavation to the Tierra Environmental Company Inc. OCD permitted landfarm facility located at 420 County Road 3100, San Juan County, New Mexico. The material is located in Cell 10 on the facility, where it shall be remediated. It is the practice of Tierra Environmental Company, Inc. to segregate each individual remediation project upon the landfarm. When remediation of each project is complete and verified by laboratory analysis, permission will be sought based on the results of the laboratory analysis from the New Mexico Oil Conservation Division by Tierra to recycle the soil for use in other oil and gas related cleanup projects as clean backfill. Approximately 2,200 cubic yards of backfill was used at Apache Station. All of that material was generated at the Tierra Landfarm. 14,00 cubic yards of the recycled soil, it's, origin and OCD authority to recycle are contained in the accompanying enclosures. The remaining 800 cubic yards of fill used at Apache Station were obtained from a stock pile of virgin backfill located at the Tierra Landfarm.

The site clean-up was successful in removing the majority of hydrocarbon contaminates in excess of the New Mexico Oil Conservation Division Regulatory limit ie: 1000 ppm range with the exception of the transfer point. That particular area had the point source eliminated, heavy compaction of fresh backfill and with the clay material encountered at 24 feet. Any remaining contamination is encapsulated and will not cause any future threat in the area.

BY:

⁷ Todd D. Nobis Environmental Specialist Tierra Environmental Co. Inc.

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CLOSURE REQUEST TO OCD



TIERRA ENVIRONMENTAL CORPORATION

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

November 14, 1995

William Olsen New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505

RE: REQUEST FOR CLOSURE, APACHE STATION, Section 33, T-25N, R-6W, SE 1/4, approximately 9.5 miles east of Lybrook, Rio Arriba Count, New Mexico, operated by GARY WILLIAMS ENERGY: TEC Project # 95042

Dear Mr. Olsen:

Enclosed herewith please find the complete report on voluntary cleanup activities conducted at Apache Station by Tierra Environmental Company, Inc. on behalf of Gary Williams Energy.

The activity was conducted as part of a sale of property agreement between Gary Williams Energy and Giant Refining.

As stated in the report, a site assessment was conducted of the location using the OCD recommended ranking system. The site received an over all rating of 10, thereby allowing residual TPH levels in the 1,000 ppm range.

Philip Environmental, representing Giant conducted limited monitoring of Tierra activity at the site. Two area's of concern were expressed by Philip that were made known to Tierra.

1. What appeared to be a stock water well is located near the site. Philip expressed a desire to have the water in the well analyzed for possible contamination. No information was readily available about the well. It does not belong to Gary Williams Energy. The well appeared at some point in time to have been a wind powered device. However further examination found that it had at some point been converted to electric. All of the electrical wiring had been disconnected. In order to sample the well, the piping had to be removed. Approximately 150' of 2' PVC was removed from the well bore. Static water level appeared to be about 125.' Water samples were collected using approved OCD methods by Mike Lane of On-Site Technologies and transported by him to their laboratory in Farmington, New Mexico for analysis of general water quality and BTEX. General Water Quality analysis disqualified the well

Page 2:

as a domestic water source. The PH was 10.11 mg/l, Sulfate 812mg/l and TDS 1,678 mg/l. Although protectable pursuant to New Mexico Water Quality Control Commission Standards in it's present state the well does not qualify as a domestic water source.

BTEX analysis of the water were as follows;

Benzene	0.3 ug/1
Toluene	1.0 ug/l
Ethylbenzene	3.2 ug/1
m,p-Xylene	<0.2 ug/1
o-Xylene	<0.2 ug/1

The analysis is well below existing New Mexico Water Quality Control Commission Standards. Therefore there is no reason to believe the minute levels of BTEX are in any way related to the adjacent Apache Station facilities belonging to Gary Williams Energy. The well contains a submersible pump. Greasy hand prints were clearly visible on the PVC pipe pulled from the well. It is our opinion that what ever small amount of contamination may be present in the well bore was as a result of unsanitary practices employed by workmen during, repair and or installation of the pump.

2. Tierra hauled approximately 2,200 cubic yards of backfill to Apache Station from our OCD permitted landfarm facility in San Juan County, New Mexico. Of the 2,200 cubic yards of soil taken to the site, approximately 1,400 cubic yards was recycled soil, approved by OCD to be used as backfill at oil and gas projects. The highest TPH level contained in the soil was 29 ppm, well within the parameters required in our OCD landfarm permit with respect to remediaiton levels, which are presently 100 ppm TPH. Appropriate documentation is contained with in the accompanying report.

One area of concern was noted by Tierra. At the transfer station loading point, a considerable amount of contaminated soil was removed to a level of approximately 17'. The excavation was becoming unstable. Therefore the decision was made to excavate a test hole at the bottom of the full excavation in order to determine the vertical extent of migration. A test hole was dug to a level of 24' wherein a layer of clay / shale was encountered. TPH samples indicated the contamination was at 714 ppm at the 24' level. After consulting with yourself and D.Foust OCD Aztec, I made the decision to discontinue excavation and backfill, thereby encapsulating any remaining contamination. The point source had been eliminated and therefore any remaining contamination should pose no further threat. Final closure samples of the excavation were all below 1,000 ppm TPH with the exception of a bottom composite which was slightly elevated at 1,202 ppm, TPH.

Page 3:

Based on the accompanying report, I would request that the site cleanup activities be considered by OCD to be complete and final closure be approved.

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

Thank you for your professional assistance and cooperation in this matter.

Sincerely,

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Phillip C. Nobis

President



3.0 PERMITS

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Submit 5 copies u	n Appropriate Diatrict Office	State of New Me	exico	· ·
P.O.Box 1980, 1	Iobbs, NM 88241-1980	Energy, Minerals and Natural Re	esources Department	Form C-117 A
P.O. Drawer DE	, Anesia, NM 88211-0719	OIL CONSERVATIO	N DIVISION	Kevisel 4-1-91
DISTRICT III 1000 Rio Brazos	Rd, Aztec, NM 87410	P.O. Box 208 Santa Fe, New Mexico	8 87504-2088 _P	PERMIT NO.
TANK CL	EANING, SEDIMENT OIL REM	OVAL, TRANSPORTATION OF MIS	CELLANEOUS HYDROCAR	BONS AND DISPOSAL PERMIT
Operator of Owner	Corry Williams Ene	7 037	Addmen 370 17th Suit	8020 e 5300. Denver Colorad
Lease or Excility N	- Lary Williams Ene Apache Station	Pio Pibe Countri N	M Leastin Soc 33	T_25N R_6N SF1/4
		<u>KIO KIDA COUNCY N</u>		U.L Sec Twp Rge.
OPERATION	TO BE PERFORMED:	Sediment Oil Removal	portation of Miscellaneous Hydrod	carbons
	Operator or Owner Representativ	reauthorizing work Phillip C	. Nobis - Tierra E	Environmental Co. Inc.
	Date Work to be Performed	ctober 4, 1995		
	TANK CLEANING DATA	Tank Number	Volume	
		Tank Type	Volume Below La	oad Line
	SEDIMENT OIL OR MIS	CELLANEOUS HYDROCARBO	N DATA	
	Sediment Oil from:	Pit 🚺 Cellar 🕅 Other Tr	ansportation facil	lity cleaning
	MISCELLANEOUS OIL Tank Bottoms From:	Pipeline Station Crude Terminal	Refinery C Oth	n r t
	Catchings From: Gasoline	Plant Gathering Lines Sa	It Water Disposal System	Other*
	Pipeline Break Oil or Spill			
	*Other (Explain)			
<u> </u>	Destination (Name and Location Aztec, N.M. 87410	n of treating plant or other facility)	box. Pred test volume (Notmq 'ierra Environmenta	al Landfarm 420 CR 3100
DESTRUCTI	ON OF SEDIMENT OIL B (Explain) Landfarming	Y: 🗍 Burning [] Pit Disposal [] Use or	n Roads or firewalls X Other
	Location of Destruction	erra Environmental Lan	farm	
	Justification of Destruction <u>No</u>	recoverable oil		
CERTIFICAT	TON : (APPLICATION MAY B	E MADE BY EITHER OF THE FOLLO	WING)	· · ·
I hereby	certify that the infomation above is	true and complete to the best of my know	wledge and belief.	
	Owner Gary Williams	s Energy	Transporter Sunco	
	By prif Confo	Z · Tierra Env. Co.	Address	
· .	Tide Environment	tal Consultant	Signature	
	Date70/11/9;	<u> </u>	Tide	Date
OIL CONSER	VATION DIVISION			
Approved By		Title		Date
				DISTRIBUTION BY OCD
A COPY OF THIS MISCELLANEOU	FORM MUST BE ON LOCATION IS HYDROCARBONS, AND MUST	I DURING TANK CLEANING, REMO' I BE PRESENTED WITH TANK BOTT	VAL OF SEDIMENT OIL OR OMS, SEDIMENT OIL	File
OR MISCELLANI	OUS HYDROCARBONS AT THE	TREATING PLANT TO WHICH IT IS	DELIVERED.	Operator
				Transporter (2)

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1. RCRA Exempt: 🔲 Non-Exempt:	4 Generator
Verbal Approval Received: Yes No By: DENNY FOUST	Gary Williams Energy
(Submitting this form for oilfield exempt waste is optional) DATE:	
2. Destination	5. Name of Originating Site
Tierra Environmental Co., Inc. Crouch Mesa Landfarm	Apache Station
3 Address of Eacility Operator	6. Name of Transporter
420 CR. 3100 AZTEC, NM 87410	Fesco
7. Originating Location of Material (Street Address or ULSTR)	8. State
Section 33, T-25 N, R-6 W, SE 1/4 Rio Riba	New Mexico
9. <u>Check One</u>	
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certificate per job.	certificate of waste from the Generator; one
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied to Generator and the New Mexico Environmental Dept or other appropriate government.	by a certification of waste status from the
C. All requests for approval to accept non-exempt wastes must be accomanied by nec	essary chemical analyses to prove
will be approved. All transporters must certify that the wastes delivered are only	those consigned for transport
Projected Date(s) for transportation: 10/12/95	inose consigned for transport.
BRIEF DESCRIPTION OF THE MATERIAL	
Soil Contaminated with crude oil removed from arou	nd 10,000 bbl tank and bermed
area. Site is being cleaned up because of a sale	from Gary Energy to Giant Refining
Facility is a transportation terminal.	· · · · ·
Estimated Volume 2,000 yd ³ Known Volume (to be entered by the operato	r at end of haul):yd ³
SIGNATURE C. John · IIILE President	DATE <u>10/11/95</u>
TYPE OR PRINT NAME TELEP	HONE NO. <u>(505) 334-8894</u>
APPROVED BY	DATE
APPROVED BY TITLE	DATE
CONDITIONS OF APPROVAL, IF ANY:	

10411 '95 13:38 10/11/95 11:48 ID:KMRC-WYNNEWOOD OK 2505 334 9024 FAX:405-665-6504

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Tierra Environmental

COMPANY Inc.

CORPORATE and LANDFARM OFFICES

P.O. Drawer 15250 Farmington, NM 87401

420 CR 3100 Aztec, NM 87410 (505) 334-8894 Fax (505) 334-9024

CERTIFICATE OF WASTE STATUS EXEMPT OILFIELD WASTE

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

Apache Station, Section 33, T-25 N, R-6 N, SE 1/4

Rio Ribe County

This material originated in:

The State of New Mexico

C The State of . Letter from Regulatory Agency having jurisdiction therefore is attached.

Location is on: 🔲 BLM, FOREST 🛄 TRIBAL 🔄 OTHER FEDERAL LANDS

Description of Material: Soil Contaminated, with crude oil from numerous

spills over several years. Site is being cleaned up because of

a sale of the facility from Gary Williams Energy to Giant Refining.

Material has been exempted by analysis TCLP attached hereto.

Destination: Tierra Environmental Company Inc. Crouch Mesa Landfarm Facility SF. 1/4, Section 2, Township 29 North, Range 12 W 498 NMPM San Juan County, New Mexico

Chris Hawley

Representative for Gary Williams Energy

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 comminged 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_ AM6+ many Title_ENVIRONMENTAL MER Date 10-11-95 Address GARK-WILLIAMS ENERGY CORP. 370 17th Street Suite 5300 DENVER, CO BOZOZ

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SITE DIAGRAM

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CORE LABORATORIES A N A L Y T I C A L R E P O R T Job Number: 952893 Prepared For: ONSITE TECHNOLOGIES LIMITED DAVE COX 657 W. MAPLE FARMINGTON, NM 87401 Date: 10/10/95

The analyses, opinions or interpretations contained in this report are based upon observations and material supplied by the client for whose exclusive and confidential use this report has been made. The interpretations or opinions expressed represent the best judgment of Core Laboratories. Core Laboratories, however, assumes no responsibility and makes no warranty or representations, express or implied, as to the productivity, proper operations, or profitableness or any ou, gas, coal or other mineral property well or sand in connection with which such report is used or refield upon for any reason windiscover. This report shall not be reproduced except in its entirety, without the written approval or Core Laboratories.

Signature

Name: Charles Sassine

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CORE LABORATORIES 1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408

Title: Laboratory Supervisor



LABORATORY TESTS RESULTS 10/10/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952893

1.

ATTN: DAVE COX

LABORATORY I.D...: 952893-0001

REMARKS.....: SAMPLED BY: T.N.

DATE RECEIVED....: 10/03/95

TIME RECEIVED....: 11:00

CLIENT I.D.....: TIE1001 DATE SAMPLED.....: 10/02/95 TIME SAMPLED.....: 08:45 WORK DESCRIPTION...: APACHE STATION BLOOMFIELD REFINERY CO.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
TCLP Semivolatiles .		*5		EPA SW-846 8270	10/09/95	GEF
1.4-Dichlorobenzene	<50	50	ug/L	EPA SW-846 8270		
2.4-Dinitrotoluene	<50	50	ug/L	EPA SH-846 8270		
Hexachlorobenzene	<50	50		FPA SH-846 8270		
Hexachlorobutadiene	<50	50		EPA SH-846 8270		
Kexachloroethane	<50	50		EPA SH-846 8270		
Nitrobenzene	<50	50		EPA SU-846 8270		
Pentachiorophenol	<250	250		EPA SU-846 8270		
2 4 5-Trichlorophenol	<50	50		EPA SU-846 8270		
2 4 6-Trichlorophenol	-50	50		EDA SU-8/6 8270		
Pyridine	<50	50		EDA SU-8/6 8270		
n m-Cresol	-50	50		EDA 50-8/6 8270		
o-Cresol	<50	50		EDA CU-8/4 8270		
2-Elucrophonal (Currente)	10	50	Y Poppyony	21-978 0C 1 1NITE	ł	
2-rtuorophenot (surrogate)	42	0	* Recovery	21-03% WC LIMITS		
Nitrobasca dE (Surrogate)	30		A Recovery	24-946 UL LIMIIS		
Nitrobenzene-do (Surrogate)	()		& Recovery	35-102% QC LIMITS		
2-Fluorobipnenyl (Surrogate)	107	0	% Recovery	43-103% QC LIMITS		
2,4,6-Iribromophenol(Surrogate)	93	0	% Recovery	28-111% QC LIMITS		
Terphenyl-d14 (Surrogate)	90	0	% Recovery	43-117% QC LIMITS		
TCLP Volatiles		*10		EPA SW-846 8260	10/15/25	QP
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		
Methyl ethyl ketone	<500	500	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		
Dibromofluoromethane(Surrogate)	101	0	% Recovery	86-115% QC LIMITS		
Toluene d-8 (Surrogate)	97	0	X Recovery	88-110% QC LIMITS		
4-Bromofluorobenzene(Surrogate)	96	0	% Recovery	86-115% QC LIMITS		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 3520	10/06/95	WEB
Glass Jar Extraction for Metals	Completed			EPA SW-846 1311	10/04/95	DGP
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	10/04/95	DGP
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
			1733 N	ORTH PADRE ISLAND DRI	VE	

(512) 289-2673

PAGE:1

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LABORATORY TESTS RESULTS 10/10/95

JOB NUMBER: 952893 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

ATTN: DAVE COX

CLIENT I.D..... T1E1001 DATE SAMPLED..... 10/02/95 TIME SAMPLED..... 08:45

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WORK DESCRIPTION ...: APACHE STATION BLOOMFIELD REFINERY CO.

LABORATORY I.D...: 952893-0001 DATE RECEIVED....: 10/03/95 TIME RECEIVED....: 11:00 REMARKS......: SAMPLED BY: T.N. i

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TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
Barium (Ba), extractable TCLP	1.17	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Lead (Pb), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Selenium (Se), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Silver (Ag), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/06/95	GCC
Flammability Potential	Neg.		+ or -	ASTM D4982-89	10/06/95	JJP
Cyanide, Reactive	<5	5	mg/kg	EPA SW-846 7.3.3.2	10/04/95	DEH
Corrosivity by pH	6.1	0.1	pH units	30 TAC 335.505 (3)	10/04/95	SEB
Sulfide, Reactive	396	50	mg/kg	EPA SW-846 7.3.4.2	10/05/95	DEH
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	10/09/95	JJP
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	10/05/95	EBS
Zerø Headspace Extraction-Volatile	Completed			EPA SW-846 1311	10/04/95	DGP
			1733 CORPU (512)	NORTH PADRE ISLAND DRIN S CHRISTI, TX 78408 289-2673	/E	
		PAGE:2				

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			QUA	LITY	ASSURAN 10/10/95	CERE	PORT			
JOB NUMBER:	952893	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	сох		
	ANAL	YSIS		DUPLICATES		REFERENCE	STANDARDS	, P	ATRIX SPIKE	S
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:CO REPORTING LI	orrosivity by MIT/DF: 0.1	pH UNITS:pH u	nits	DATE/TIME AN METHOD REFER	NALYZED:10/04 RENCE :EPA SI	/95 13:00 J-846 90408			QC BATCH N Te	UMBER:990914 CHNICIAN:SEB
STANDARD STANDARD DUPLICATE DUPLICATE	LCS 2 LCS 3 MD MD	386.18.4 386.18.4 952827-1 952827-11	6.96 6.99 8.2 6.9	8.0 6.8	2	7.00 7.00	99 100			
PARAMETER:Cy REPORTING LI	/anide, React MIT/DF:	ive UNITS:mg/k	9	DATE/TIME AN METHOD REFER	ALYZED:10/04, RENCE :EPA SI	/95 08:00 4-846 7.3.3.	2	•	QC BATCH N	JMBER:990934 CHNICIAN:DEH
BLANK STANDARD SPIKE DUPLICATE	MB 100495 LCS PDS MD	Di H20 508.20.3 952826-2 952826-2	<5 2.03 1.01 <5	<5	0	1.93	105	<5	0.944	107
PARAMETER:SU REPORTING LI	ulfide, React MIT/DF: 50	ive UNITS:mg/k	g	DATE/TIME AN METHOD REFER	ALYZED:10/05/ LENCE :EPA SI	/95 07:30 1·846 7.3.4.	2	•	QC BATCH NI Tei	JMBER:990999 CHNICIAN:DEH
BLANK STANDARD SPIKE DUPLICATE	MB 090595 LCS MS MD	Di H2O 508.18.17 952893-1 952893-1	<50 301 736 396	406	2	300	100	396	300	113
PARAMETER:FU REPORTING LI	ammability P MIT/DF:	otential UNITS:+ or	-	DATE/TIME AN METHOD REFER	IALYZED:10/06/ ENCE :ASTM (/95 16:39)4982-89	· · · · · · · · · · · · · · · · · · ·		QC BATCH NU	JMBER: 991166 CHNICIAN: JJP
DUPLICATE	MD	952793-3	Pos.	Pos.	0					
PARAMETER:AF	senic (As), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/06 ENCE : SW-84	/95 11:08 6 6010A			QC BATCH NU	JMBCS. 91182 Shnician:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 Q0895 0913C 952876-002 952894-001	<0.05 <0.05 0.97 4.92 0.91 <0.05	<0.05	NC	1.00 5.00	97 98	<0.05	1.00	91
PARAMETER:Ba REPORTING LI	rium (Ba), e MIT/DF: 0.05	xtractable T UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER	ALYZED:10/06/ ENCE : SW-84	95 11:08 6 6010A	1	R	OC BATCH NU TEG	IMBER:991183 CHNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 200.7 70895 0913C 952876-002 952894-001	<0.05 <0.05 <0.05 1.00 5.01 1.58 2.03	2.44	18	1.00 5.00	100 100	0.71	1.00	87
					·		1733 NORTH CORPUS CHR (512) 289-7	PADRE ISLAN ISTI, TX 7 2673	D DRIVE 8408	
					PAGE:3					

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	QUALITY ASSURANCE REPORT 10/10/95											
JOB NUMBER:	952893	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX				
	ANAL	YSIS		DUPLI	CATES	REFERENCE STANDARDS		MATRIX SPIKES		S		
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:Ba REPORTING LI	rium (Ba), e MIT/DF: 0.05 T	xtractable T UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER	ALYZED:10/06 ENCE : SW-8	/95 11:08 46 6010 A	1	1	QC BATCH N	UMBER:991183 CHNICIAN:GCC		
PARAMETER:Ca REPORTING LI	dmium (Cd), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	L DATE/TIME AN METHOD REFER	ALYZED:10/06 ENCE : SW-8	/95 11:08 46 6010A	J	1	QC BATCH N TE	UMBER:991184 CHNICIAN:GCC		
BLANK BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 200.7 40895 0913C 952894-001 952894-001	<0.05 <0.05 <0.05 1.01 4.99 0.92 <0.05	<0.05	NC	1.00 5.00	101 100	<0.05	1.00	92		
PARAMETER:Ch REPORTING LI	romium (Cr), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/06, ENCE : SW-8	/95 11:08 46 6010A		•	QC BATCH N TE	UMBER:991185 CHNICIAN:GCC		
BLANK BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 200.7 00895 0913C 952894-001 952894-001	<0.05 <0.05 <0.05 1.03 5.03 0.87 <0.05	<0.05	NC	1.00 5.00	103 101	<0.05	1.00	87		
PARAMETER:Le REPORTING LI	ad (Pb), ext MIT/DF: 0.05	ractable TCL UNITS:mg/L	P	DATE/TIME AN METHOD REFER	ALYZED:10/06 ENCE : SW-84	/95 11:08 46 6010A	•		QC BATCH N	UMBER:991186 CHNICIAN:GCC		
BLANK BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 200.7 90895 0913C 952894-001 952894-001	<0.05 <0.05 <0.05 1.03 5.04 0.86 <0.05	<0.05	NC	1.00 5.00	103 101	<0.05	1.00	86		
PARAMETER:Se REPORTING LI	lenium (Se), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/06, ENCE : SW-84	/95 11:08 66 6010A			QC BATCH N	UMBER:991187 CHNICIAN:GCC		
BLANK BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 200.7 00895 0913C 952894-001 952894-001	<0.05 <0.05 0.05 1.00 4.93 0.96 <0.05	<0.05	NC	1.00 5.00	100 99	<0.05	1.00	96		
	1	1		I	1	1	1733 NORTH CORPUS CHR (512) 289-	PADRE ISLAN ISTI, TX 7 2673	I ID DRIVE 78408	1		
					PAGE:4							

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	QUALITY ASSURANCE REPORT 10/10/95											
JOB NUMBER:	952893	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX				
	ANAL	YSIS		DUPLI	CATES	REFERENCE STANDARDS		MATRIX SPIKES				
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SP I KE ADDED	PERCENT RECOVERY		
PARAMETER:Si REPORTING LI	lver (Ag), e MIT/DF: 0.05	xtractable T UNITS:mg/L	CLP I	DATE/TIME AN METHOD REFER	ALYZED:10/06, ENCE : SW-8	/95 11:08 46 6010A			QC BATCH NU	MBER:991188 HNICIAN:GCC		
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3051 ,200.7 70895 0913C 952894-001 952894-001	<0.05 <0.05 <0.05 1.05 5.14 0.94 <0.05	<0.05	NC	1.00 5.00	105 103	<0.05	1.00	94		
PARAMETER:Me REPORTING LI	rcury (Hg), MIT/DF: 0.00	extractable, 2 UNITS:mg/L	TCLP	DATE/TIME AN. METHOD REFER	ALYZED:10/09 ENCE :EPA SI	/95 18:08 4-846 7470			QC BATCH NL	MBER:991472 HNICIAN:JJP		
BLANK STANDARD SPIKE DUPLICATE	MB RS MS MD	DI H20 Bk367 Pg49 952893-1 952893-1	<0.002 0.020 0.049 <0.002	<0.002	NC	0.020	100	<0.002	0.050	98		
							-					
							1733 NORTH CORPUS CHR (512) 289-	PADRE ISLAN ISTI, TX 7 2673	D DRIVE 8408			
					PAGE:5							

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QUALITY ASSURANCE REPORT 10/10/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

TCLP Volatiles

JOB NUMBER: 952893

ATTN: DAVE COX

DATE ANALYZED: 10/05/95 TIME ANALYZED: 17:30 METHOD: EPA SW-846 8260

QC NUMBER:991252

	[Ι	1	Γ	T	
TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASUR
Vinyl chloride	мв	092795	1	<5	5	ug/L
	MB	092795	1	<5	5	lug/L
	MB	100295		<5	5	
1.1-Dichloroethene	MB	092795	1	<5	5	ug/L
	MB	092795	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
Methyl ethyl ketone	MB	092795	1	<50	50	ug/L
	MB MB	100205		<50	50	
	MB	100295	1	<50	50	ug/L
Chloroform	MB	092795	1	<5	5	ug/L
	MB	092795	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
Carbon tetrachloride	MB	092795	1	<5	5	ug/L
	MB MB	100205		<5	5	
	MB	100295	1	<5	5	
1.2-Dichloroethane	MB	092795	1	<5	5	ug/L
.,	MB	092795	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
	MB	100295	1	<5	5 .	ug/L
Benzene	MB	092795		<5	5	ug/L
	MB	100205		<5	5	Ug/L
	MB	100295	1		5	
Trichloroethene	MB	092795	1	<5	5	ug/L
	MB	092795	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
Tetrachloroethene	MB	092795	1	<5	5	ug/L
	MB	100205	1	5	5	
	MR	100295	1	<5	5	
Chlorobenzene	MB	092795	1	<5	5	ug/L
	MB	092795	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
	MB	100295	1	<5	5	ug/L
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			1			1
				1		l
				1733 NORTH P	ADRE ISLAND DRIV	E
1				CORPUS CHRIS	TI, TX 78408	
1				(512) 289-26	73	
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TCLP Volatiles

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QUALITY ASSURANCE REPORT 10/10/95

JOB NUMBER: 952893 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

DATE ANALYZED: 10/05/95 TIME ANALYZED: 17:30 METHOD: EPA SW-846 8260 QC

QC NUMBER:991252

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		REFERE	NCE ST	ANDARD	S			
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride 1,1-Dichloroethene Methyl ethyl ketone Chloroform Carbon tetrachloride 1,2-Dichloroethane Benzene Trichloroethene Chlorobenzene Dibromofluoromethane(Surrogate) Toluene d-8 (Surrogate) 4-Bromofluorobenzene(Surrogate)		342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1 342.92.1		107 122 113 107 120 128 109 111 112 110 47 50 50	100 100 100 100 100 100 100 50 50 50 50	107 122 113 107 120 128 109 111 112 110 94 100 100	5 50 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
······································	1	1	1	I	1733 NOR	TH PADRE ISL	AND DRIVE	l
				. <u>p </u>	CORPUS C (512) 28	HRISTI, TX 9-2673	78408	
			PAGE:7					

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QUALITY ASSURANCE REPORT 10/10/95

JOB NUMBER: 952893 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

TE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 10/05/95 TIME ANALYZED: 17:30 METHOD: EPA SW-846 8260

QC NUMBER:991252

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			MAIRIX	SPIK					
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP I KE ADDED	PERCENT	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride	MS	952800-1	1	950	0	1000	95	5	ug/L
1,1-Dichloroethene	MSD MS	952800-1		940 1110 1130	0	1000	94 111 113	5	ug/L ug/L
Methyl ethyl ketone	MS	952800-1		1190	0	1000	119	50	ug/L ug/L
Chloroform	MS	952800-1		1050	0	1000	105	5	ug/L ug/L
Carbon tetrachloride	MS	952800-1	1	1070	0	1000	107	5	ug/L ug/L
1,2-Dichloroethane	MS	952800-1		1250	0	1000	125	5	ug/L ug/L
Benzene	MS	952800-1		970 980	0	1000	97 98	5	ug/L ug/L
Trichloroethene	MS MSD	952800-1 952800-1		970 970	0	1000	97 97	5	ug/L ug/L
Tetrachloroethene	MS MSD	952800-1 952800-1		970 990	0	1000 1000	97 99	5 5	ug/L ug/L
Chlorobenzene	MS MSD	952800-1 952800-1	1	990 980	0	1000 1000	99 98	5	ug/L ug/L
Dibromofluoromethane(Surrogate	MB MB	092795-00 092795-00		510 520	0	500 500	102 104	5 5	ug/L ug/L
Toluene d-8 (Surrogate)	MB MB MB MB	100295-00 100295-00 092795-00 092795-00	1 1 1	510 510 490 490	0 0 0 0	500 500 500 500	102 102 98 98	5 5 5 5	ug/L ug/L ug/L ug/L
4-Bromofluorobenzene(Surrogate	MB MB MB MB	100295-00 100295-00 092795-00 092795-00 100295-00		480 500 500 500 490	000000000000000000000000000000000000000	500 500 500 500 500	96 100 100 100 98	5 5 5 5 5	ug/L ug/L ug/L ug/L ug/L
	mb	100295-00		480		500	70	2	Ug/L
			 	<u> </u>					
						1733 NOR1 CORPUS CH (512) 289	TH PADRE IS HRISTI, TX 2-2673	LAND DRIVE 78408	
				PAGE:8					

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QUALITY ASSURANCE REPORT 10/10/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952893

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/09/95 TIME ANALYZED: 13:47 METHOD: EPA SW-846 8270

QC NUMBER:991365

		BLAN	IKS			
TEST DESCRIPTION	ANALY SUB-	TYPE ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASURE
1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Nitrobenzene Pentachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Pyridine Cresols (Total)	MB MB MB MB MB MB MB MB MB MB MB	100695 100695 100695 100695 100695 100695 100695 100695 100695 100695 100695	1 1 1 1 1 1 1 1 1 1 1	<10 <10 <10 <10 <10 <10 <50 <10 <10 <10 <30	10 10 10 10 10 50 10 10 10 30	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
				1733 NORTH P	ADRE ISLAND DRIV	[
		PAG	:E:9	CORPUS CHRIS (512) 289-26	TI, TX 78408 73	-

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QUALITY ASSURANCE REPORT 10/10/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952893

ATTN: DAVE COX

TCLP SEMIVOLATILES

DATE ANALYZED: 10/09/95 TIME ANALYZED: 13:47 METHOD: EPA SW-846 8270

QC NUMBER:991365

NATRIX SPIKES									
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS 1. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP I KE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene Hexachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Pyridine Cresols (Total)	BS BS BS BS BS BS BS BS BS BS BS	100695-00 100695-00 100695-00 100695-00 100695-00 100695-00 100695-00 100695-00 100695-00		65 88 110 76 66 290 320 120 140 230		250 250 250 250 250 250 250 750 750 750 750 750	26 35 44 30 26 38 39 43 48 28 31	10 10 10 10 10 10 10 10 10 30	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673									
PAGE:10									

The analyses, opinions or interpretations contained in this report are based upon observations and material supplied by the client for whose exclusive and confidential use this report has been made. The interpretations or opinions expressed represent the best judgment of Core Laboratories. Core Laboratories, however, assumes no responsibility and makes no warranty or representations, express or imblied, as to the productivity, proper operations, or protitableness of any oil, gas, coal or other mineral, property, well or sand in connection with which such report is used or relied upon for any reason whatsoever. This report shall not be reproduced except in its entirety, without the written approval of Core Laboratories




QUALITY ASSURANCE FOOTER

Cited Methods are obtained from the following documents :

EPA 600/2-79-020, Methods for the Analysis of Water and Wastes, March 1983. USEPA SW-846 3rd. Edition, November 1990 and July 1992 Update, Test Methods for Evaluating Solid Waste. EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils. Federal Register, July 1, 1992 (40 CFR Part 136). Standard Methods for the Examination of Water and Wastewater, 18th Ed. APHA, AWWA, WPCF.

Quality control acceptance criteria are method dependent.

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.

The data in this report are within the limits of uncertainty specified in the referenced method unless otherwise indicated.

SUBCONTRACTED LABORATORY LOCATIONS

For analyses performed by a subcontract laboratory, an ******* and the designated laboratory code is indicated in the ****ECHN*** column of the laboratory test results report.

Core Laboratories :

: |

Anaheim	*AN	Lake Charles	*LC
Aurora	*AU	Long Beach	*L8
Casper	*CA	Other Laboratories	*XX
Houston	*HP		

QUALITY ASSURANCE REPORT CODES

BLANKS*	REFERENCE STANDARDS	SPIKES AND DUPLICATES
MB = Method Blank	RS = Reference Standard	MS = Matrix Spike, BS = Blank Spike
RB = Reagent Blank	CC = Continuing Calib.	SS = Surrogate Spike, MD = Matrix Dup.
SB = Storage Blank	LCS = Laboratory Control Std.	PDS= Post Digested Spike
ICB = Initial Calib. Blank	ICV = Initial Calib. Verification	MSD= Matrix Spike Duplicate
CCB = Continuing Calib. Blank	CCV = Cont. Calib. Verification	PDD= Post Digested Duplicate

*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.

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CORPUS CHRISTI, TX 7	3408
(512) 289-2673	

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(Client Signature <u>Must</u> Accompany Request)								
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CORE LABORATORIES

CORE LABORATORIES ANALYTICAL REPORT

> Job Number: 952967 Prepared For:

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

Date: 10/18/95

Judy On Signature

Name: Judy Orr

10/24/95 Date:

CORE LABORATORIES 1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408

Title: QA/QC Coordinator



LABORATORY TESTS RESULTS 10/18/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952967

CLIENT I.D......: 4-1247 DATE SAMPLED.....: 10/04/95 TIME SAMPLED.....: 13:00 WORK DESCRIPTION...: TANK BOTTOM SLUDGE 8482-3523

LABORATORY I.D:	952967-0001	
DATE RECEIVED:	10/09/95	
TIME RECEIVED:	10:30	
REMARKS	SAMPLED BY:	D.N.

ATTN: DAVE COX

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0	% Recovery	86-115% QC LIMITS		
		EPA SW-846 3520	10/14/95	WEB
	3	EPA SW-846 1311	10/11/95	DGP
		EPA SW-846 1311	10/11/95	DGP
0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
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CORPUS CHRISTI, TX (512) 289-2673

PAGE:1



LABORATORY TESTS RESULTS 10/18/95

JOB NUMBER: 952967 CUSTOMER: ONSITE TECHNOLOGIES LIMITED

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ATTN: DAVE COX

CLIENT I.D......: 4-1247 DATE SAMPLED.....: 10/04/95 TIME SAMPLED.....: 13:00 WORK DESCRIPTION...: TANK BOTTOM SLUDGE 8482-3523

LABORATORY I.D...: 952967-0001 DATE RECEIVED....: 10/09/95 TIME RECEIVED....: 10:30 REMARKS......: SAMPLED BY: D.N.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Barium (Ba), extractable TCLP	2.42	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Lead (Pb), extractable TCLP	0.10	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Selenium (Se), extractable TCLP	0.13	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Silver (Ag), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	10/17/95	GCC
Flash Point, closed cup	79		Deg. Farenheit	ASTM D-93	10/16/95	EBS
Cyanide, Reactive	<5	5	mg/kg	EPA SW-846 7.3.3.2	10/11/95	DEH
Corrosivity by pH	6.9	0.1	pH units	EPA SW-846 9045 C	10/17/95	SEB
Sulfide, Reactive	739	50	mg/kg	EPA SW-846 7.3.4.2	10/11/95	DEH
Mercury (Hg), extractable, TCLP	<0.002	0.002	mg/L	EPA SW-846 7470	10/13/95	EBS
Metals Digest on Extracted Sample	Completed			EPA SW-846 3010	10/16/95	JGR
Zero Headspace Extraction-Volatile	Completed			EPA SW-846 1311	10/11/95	DGP
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CORE LABORATORIES

			QUA	LITY A	SSURAN 10/18/95	CEREI	PORT			
JOB NUMBER:	952967	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANAL	rsis		DUPL I	CATES	REFERENCE	STANDARDS	м	ATRIX SPIKES	5
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:SU REPORTING LI	lfide, React NIT/DF: 50	ive UNITS:mg/k	a	DATE/TIME AN METHOD REFER	ALYZED:10/11, ENCE :EPA SI	/95 06:30 1-846 7.3.4.	2		QC BATCH NU	JMBER:991684 CHNICIAN:DEH
BLANK STANDARD SPIKE DUPLICATE	MB 101195 LCS MS MD	Di H2O 508.18.17 952965-1 952965-1	<50 289 269 <50	<50	NC	300	96	<50	300	90
PARAMETER:Cy REPORTING LI	anide, React AIT/DF:	ive UNITS:mg/k	9	DATE/TIME AN METHOD REFER	ALYZED:10/11, RENCE :EPA SI	/95 06:30 J-846 7.3.3.	2	•	QC BATCH NU	IMBER:991699 CHNICIAN:DEH
BLANK STANDARD SPIKE DUPLICATE	MB 101195 LCS PDS MD	Di H20 508.24.7 952965-1 952965-1	<5 1.97 1.63 <5	<5	0	1.93	102	<5	1.88	87
PARAMETER:Ne Reporting Li	rcury (Hg), (HIT/DF: 0.00	extractable, 2 UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/13, ENCE :EPA SI	/95 08:00 J-846 7470			QC BATCH NU	MBER:992048 CHNICIAN:EBS
BLANK STANDARD SPIKE DUPLICATE	MB RS MS MD	DiH20 367.49 952967-1 952967-1	<0.002 0.018 0.053 <0.002	<0.002	NC	0.020	90	<0.002	0.050	106
PARAMETER: FU REPORTING LI	ash Point, cl 4IT/DF:	losed cup UNITS:Deg.	Farenheit	DATE/TIME AN METHOD REFER	ALYZED:10/16, ENCE :ASTM I	/95 16:00)-93		•	QC BATCH NU	MBER:992256 CHNICIAN:EBS
STANDARD DUPLICATE	RS MD	p-Xylene 952909-1	80 75	76	1	81	99			
PARAMETER: CO REPORTING LI	rosivity by MIT/DF: 0.1	pH UNITS:pH u	nits I	DATE/TIME AN METHOD REFER	ALYZED:10/17, ENCE :EPA SI	/95 13:00 J-846 90408			QC BATCH NL TEC	IMBER:992271 CHNICIAN:SEB
STANDARD DUPLICATE	LCS 4 MD	386.20.32 952965-1	7.04 7.8	7.9	1	7.00	101			
PARAMETER:An	senic (As), HIT/DF: 0.05	extractable UNITS:mg/L	ICLP	DATE/TIME AN NETHOD REFER	ALYZED:10/17 ENCE : SW-8	/95 12:57 46 6010A			QC BATCH NU	UMBER:992294 CHNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3005 Q0895 1013C 953024-001 953024-001	<0.05 <0.05 1.00 5.05 0.83 <0.05	<0.05	NC	1.00 5.00	100 101	<0.05	1.00	83
PARAMETER: BAI	rium (Ba), ex 417/DF: 0.05	ktractable T UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER	ALYZED:10/17, ENCE : SW-8	/95 12:57 46 6010A	•		QC BATCH NU	JMBER:992295 Chnician:GCC
BLANK	MB	3010	<0.05							
			······				1733 NORTH CORPUS CHR (512) 289-	PADRE ISLAN ISTI, TX 7 2673	D DRIVE 18408	

PAGE:3



			QUA	LITY A	S S U R A N 10/18/95	CEREI	PORT			
JOB NUMBER:	952967	CUSTONE	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANAL	YSIS		DUPLI	CATES	REFERENCE	STANDARDS	м	ATRIX SPIKES	
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SP I KE ADDED	PERCENT RECOVERY
PARAMETER:Ba REPORTING LI	rium (Ba), e MIT/DF: 0.05	xtractable T UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER	ALYZED:10/17, ENCE : SW-8	/95 12:57 46 6010A			QC BATCH NU	MBER:992295 HNICIAN:GCC
BLANK STANDARD STANDARD SPJKE DUPLICATE	MB ICV CCV BS MD	3005 70895 1013C 952948-000 952991-001	<0.05 1.00 5.02 0.95 0.12	0.13	0.01	1.00 5.00	100 100	<0.05	1.00	95
PARAMETER:Ca REPORTING LI	dmium (Cd), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/17, ENCE : SW-8	/95 12:57 46 6010a			AC BATCH NU	MBER:992296 HNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3005 Q0895 1013C 953024-001 953024-001	<0.05 <0.05 1.03 5.07 0.91 <0.05	<0.05	NC	1.00 5.00	103 101	<0.05	1.00	91
PARAMETER:Ch REPORTING LI	romium (Cr), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/17 ENCE : SV-8	/95 12:57 46 6010A	•	•	AC BATCH NU Tec	MBER:992297 HNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB ICV CCV BS MD	3010 3005 q0895 1013C 952948-000 952991-001	<0.05 <0.05 1.04 5.08 0.90 <0.05	<0.05	NC	1.00 5.00	104 102	<0.05	1.00	90
PARAMETER:Le Reporting Li	ad (Pb), ext MIT/DF: 0.05	ractable TCLI UNITS:mg/L	P	DATE/TIME AN METHOD REFER	ALYZED:10/17, ENCE : SW-8	/95 12:57 6 6010A	L	۹	QC BATCH NU	MBER:992298 HNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3005 00895 1013C 952948-000 952991-001	<0.05 <0.05 1.06 5.05 0.90 <0.05	<0.05	NC	1.00 5.00	106 101	<0.05	1.00	90
PARAMETER:Se REPORTING LI	lenium (Se), MIT/DF: 0.05	extractable UNITS:mg/L	TCLP	DATE/TIME AN METHOD REFER	ALYZED:10/17 ENCE : SW-8	/95 12:57 66 6010A			QC BATCH NU TEC	MBER:992299 HNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV MS MD	3010 3005 40895 1013C 953024-001 953024-001	<0.05 <0.05 1.01 5.00 0.81 <0.05	<0.05	NC	1.00 5.00	101 100	<0.05	1.00	81
		<u></u>					1733 NORTH CORPUS CHR (512) 289-	PADRE ISLAN ISTI, TX 7 2673	D DRIVE 8408	

PAGE:4



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CORE LABORATORIES

			QUA	LITY A	SSURAN 10/18/95	CE RE	PORT			
JOB NUMBER:	952967	CUSTOME	R: ONSITE T	ECHNOLOGIES	LIMITED		ATTN: DAVE	COX		
	ANAL	YSIS		DUPL I	CATES	REFERENCE	STANDARDS	<u>ا</u>	ATRIX SPIKES	
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:ST REPORTING LI	lver (Ag), e MIT/DF: 0.05	xtractable T UNITS:mg/L	CLP	DATE/TIME AN METHOD REFER	ALYZED:10/17 ENCE : SW-8	/95 12:57 46 6010A			QC BATCH NU Tec	MBER:992300 HNICIAN:GCC
BLANK BLANK STANDARD STANDARD SPIKE DUPLICATE	MB MB ICV CCV BS MD	3010 3005 70895 1013C 952948-001 952977-001	<0.05 <0.05 0.95 4.74 0.86 <0.05	<0.05	NC	1.00	95 95	<0.05	1.00	86
							1733 NORTH CORPUS CHR (512) 289-	PADRE ISLA ISTI, TX 2673	ND DRIVE 78408	

PAGE:5



TCLP Volatiles

CORE LABORATORIES

QUALITY ASSURANCE REPORT 10/18/95

DATE ANALYZED: 10/17/95 TIME ANALYZED: 16:44 METHOD: EPA SW-846 8260

JOB NUMBER: 952967 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

QC NUMBER:992279

		BLAN	KS			
TEST DESCRIPTION	ANALY SUB-TYP	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASURE
Vinyl chloride	МВ	100995	1	<5	5	ug/L
1,1-Dichlorøethene	MB MB	100995		5	5	ug/L ug/L
Methyl ethyl ketone	MB MB	100995 100995	1	<5 <50	5 50	ug/L ug/L
Chloroform	MB	100995	1	<50 <5	50 5	ug/L ug/L
Carbon totachlanida	MB	100995	1	<5	5	ug/L
	MB	100995	1	<5	5	ug/L
1,2-Dichloroethane	MB MB	100995	1	<5 <5	5	ug/L ug/L
Benzene	MB	100995		<5 5	5	ug/L
Trichloroethene	MB	100995	1	<5	5	ug/L
Tetrachloroethene	MB MB	100995	1	<5 <5	5	ug/L ug/L
Chlorobenzene	MB MB	100995 100995	1	<5 <5	5	ug/L ug/L
	мв	100995	1	<5	5	ug/L
						1
				ļ		l
			·····	1733 NORTH P	ADRE ISLAND DRIV	E
				CORPUS CHRIS (512) 289-26	TI, TX 78408	
						· · · · · · · · · · · · · · · · · · ·

PAGE:6



QUALITY ASSURANCE REPORT 10/18/95

JOB NUMBER: 952967 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 10/17/95 TIME ANALYZED: 16:44 METHOD: EPA SW-846 8260

QC NUMBER:992279

		REFERE	NCE ST	ANDARD	S			
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride 1,1-Dichloroethene Methyl ethyl ketone Chloroform Carbon tetrachloride 1,2-Dichloroethane Benzene Trichloroethene Tetrachloroethene Chlorobenzene Dibromofluoromethane(Surrogate) Toluene d-8 (Surrogate) 4-Bromofluorobenzene(Surrogate)		342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1 342.94.1		103 124 112 110 122 129 110 114 119 114 47 51 52	100 100 100 100 100 100 100 50 50 50 50	103 124 112 110 122 129 110 114 119 114 94 102 104	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
					CORPUS C (512) 28	HRISTI, TX 9-2673	78408	



QUALITY ASSURANCE REPORT 10/18/95

JOB NUMBER: 952967 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX

TCLP Volatiles

DATE ANALYZED: 10/17/95 TIME ANALYZED: 16:44 METHOD: EPA SW-846 8260

QC NUMBER: 992279

			N A T R I X	S P I K	ES				
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS 1. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
Vinyl chloride	MS	952965-1	1	930	0	1000	93	5	ug/L
1,1-Dichloroethene	MSD	952965-1	1	1110	0	1000	95 111	5	ug/L ug/L
Methyl ethyl ketone	MSD MS	952965-1 952965-1	1	1160 1100	0	1000	116	5 50	ug/L ug/L
Chloroform	MSD MS	952965-1 952965-1	1	1070		1000	107	50 5	ug/L ug/L
Carbon tetrachloride	MSD	952965-1	1	1080	0	1000	108	5	ug/L
	MSD	952965-1		1120	Ö	1000	112	5	ug/L
,2-Dichtoroethane	MSD	952965-1	1	1270	0	1000	120	5	ug/L
Benzene	MS MSD	952965-1	1	970 1000	0	1000	97 100	5	ug/L ug/L
Trichlorøethene	MS MSD	952965-1 952965-1	1	990 1000	0	1000	99 100	5	ug/L ug/L
Tetrachloroethene	MS MSD	952965-1 952965-1	1	950 980	0	1000	95 98	5	ug/L ug/l
Chlorobenzene	MS	952965-1	1	940	0	1000	94	5	ug/L
Dibromofluoromethane(Surrogate	MB	100995-00		510	0	500	102	5	ug/L
Toluene d-8 (Surrogate)	MB	100995-00		500	0	500	100	5	ug/L
4-Bromofluorobenzene(Surrogate	MB	100995-00	1	480	0	500	96	5	ug/L ug/L
	MB	100995-00	1	470	0	500	94	5	ug/L
							1		
							1		
		l				ļ			
						1733 NORTH CORPUS CHR (512) 289-	PADRE IS ISTI, TX 2673	LAND DRIVE 78408	

PAGE:8



QUALITY ASSURANCE REPORT 10/18/95

DATE ANALYZED: 10/18/95 TIME ANALYZED: 10:23 METHOD: EPA SW-846 8270

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952967

TCLP SEMIVOLATILES

ATTN: DAVE COX

QC NUMBER: 992293

				BLAN	ĸs							
TEST DESCRIPTION	ANALY	SUB-TYPE	ANALYSIS	I.D.	DILUTION	FACTOR	ANALYZED	VALUE	DETECTION	LIMIT	UNITS OF	MEASURE
1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene	MB MB MB	·	101495 101495 101495		1 1 1		<10 <10 <10		10 10 10		ug/L ug/L ug/L	
Hexachlorobutadiene Hexachloroethane Nitrobenzene	MB MB MB		101495 101495 101495				<10 <10 <10		10 10 10		ug/L ug/L ug/L	
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Pyridine	MB MB MB MB		101495 101495 101495 101495				<50 <10 <10 <10		50 10 10 10		ug/L ug/L ug/L ug/L	
Cresols (Total)	MB		101495		i		<30		30		ug/L	
							1733 N CORPUS (512)	ORTH P/ 5 CHRIS1 289-267	ADRE ISLAND TI, TX 78 73) DRIVE 3408		



ATTN: DAVE COX

QUALITY ASSURANCE REPORT 10/18/95

CUSTOMER: ONSITE TECHNOLOGIES LIMITED

JOB NUMBER: 952967

TCLP SEMIVOLATILES

DATE ANALYZED: 10/18/95 TIME ANALYZED: 10:23 METHOD: EPA SW-846 8270

QC NUMBER:992293

			MATRIX	S P I K	ES				
TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	ORIGINAL VALUE	SP I KE ADDED	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobutadiene Hexachloroethane Nitrobenzene Pentachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Pyridine Cresols (Total)	BS BS BS BS BS BS BS BS BS BS BS BS BS B	101495-00 101495-00 101495-00 101495-00 101495-00 101495-00 101495-00 101495-00 101495-00 101495-00		180 150 220 180 170 180 470 540 200 190 520		250 250 250 250 250 750 750 750 750 750 750 750	72 60 88 72 68 72 63 72 80 38 69	10 10 10 10 10 10 10 10 10 30	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
· · · · · · · · · · · · · · · · · · ·				ļ	 				}
						1733 NORTH CORPUS CHR (512) 289-	PADRE IS ISTI, TX 2673	LAND DRIVE 78408	

PAGE:10



ASSURANCE FOGIER Q LI A L L T Y Cited Methods are obtained from the following documents : EPA 600/2-79-020, Methods for the Analysis of Water and Wastes, March 1983. USEPA SW-846 3rd. Edition, November 1990 and July 1992 Update, Test Methods for Evaluating Solid Waste. EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils. Federal Register, July 1, 1992 (40 CFR Part 136). Standard Methods for the Examination of Water and Wastewater, 18th Ed. APHA, AWWA, WPCF. Quality control acceptance criteria are method dependent. 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. The data in this report are within the limits of uncertainty specified in the referenced method unless otherwise indicated. SUBCONTRACTED LABORATORY LOCATIONS For analyses performed by a subcontract laboratory, an "*" and the designated laboratory code is indicated in the "TECHN" column of the laboratory test results report. Core Laboratories : Lake Charles *LC Anaheim *AN Aurora *AU Long Beach *LB *****¥¥ *CA Other Laboratories Casper *HP Houston QUALITY ASSURANCE REPORT CODES **BLANKS* REFERENCE STANDARDS** SPIKES AND DUPLICATES ---------MS = Matrix Spike, BS = Blank Spike MB = Method Blank RS = Reference Standard RB = Reagent Blank CC = Continuing Calib. SS = Surrogate Spike, MD = Matrix Dup. SB = Storage Blank LCS = Laboratory Control Std. PDS= Post Digested Spike ICB = Initial Calib. Blank ICV = Initial Calib. Verification MSD= Matrix Spike Duplicate CCV = Cont. Calib. Verification PDD= Post Digested Duplicate CCB = Continuing Calib. Blank

*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.

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

3524	Page / of / •	UX Title	TE TECH - W. WAPLE WINGTON, YM B7401	ANALYSIS REQUESTED	17. 75. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	t where the second seco	 V &482-3523 			LV Date/Time 10/4/65 1030	Date/Time	Date/Time	10 Working Days Special Instructions:	Protection ASSAR	
Y RECORD	10/5/95	Name DAVID C	Company UN SI Mailing Address 657 City, State, Zip FAM Telenhone No. 505 7	Sar S	TOUR REPORT	A Nor Nor No	> > > >			ceived by: DINL FLP	ceived by:	ceived by.	Shirt 24-48 Hours		- Samnler Goldenrod - Client
HAIN OF CUSTOD	Date:	-1247 6		- - - - - - - - - - - - - - - - - - -	admuN	SAMPLE MATRIX PRES.	1 200n2 ave: 24/h/0	CUSH AXAUYS		Date/Time 1.0 /6/45 /700 Rec	Date/Time	Date/Time Rec		Date 10/6/95	Intion: White - On Site Vallow - I AB Pink -
S	TECHNOLOGIES, LTD. 657 W. Maple • P. O. Bc LAB: (505) 325-56	Purchase Order No.: 3523 Job No. 4-	Name ACCUNTS PAYADUE DOMPANY ON SITE Address P.O. BOY 2606 City State Zin CANNUNATION NUM	Sampling Location: APACHE JUNCTION	Sampler:		TANK BOTTON SLUDGE			Relinquished by:	Relinquished by:	gelinquished by:	Method of Shipment:	Authorized by: (Offent Signature <u>Must</u> Accompany Request)	Distrib

	CHAIN OF CUST	ODY F	RECORD		
/ ON SITE	Date:	1. 11			Pageof
TECHNOLOGIES, LTD.	N. Maple • P. O. Box 2606 • Farmington NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256				
Purchase Order No.:	Job No. ч 2 ч 7	Nan	le ?		Title
Name		17 21 8	Ipany	······	
	Dept.		ing Address		
SEI Address		้อั เอ ารา ระ	, State, Zip		
E City, State, Zip		H Tele	phone No.		Felefax No.
Sampling Location:			6.	ANALYSIS REQU	ESTED
		ir of Jers		/ / /	
Sampler: Start		Numbe Sontair			
	SAMPLE	> 			
SAMPLE IDEN IIFICATION	DATE TIME MATRIX PRES.				
	k a 7. (~e. 7./ 1.00	>			6-1-2-5
Relinquished by:	Date/Time	Received t	y:		Date/Time
Relinquished by:	Date/Time	Received b	y:		Date/Time
Relinquished by:	Date/Time	Received b	y:		Date/Time
Method of Shipment:		Rush	24-48 Hours	10 Working Days	Special Instructions:
Authorized hv:	Date				
(Client Signature <u>Must</u> Accor	mpany Request)	T			
	Distribution: White - On Site Yellow - LAB	Pink – Sample	r Goldenrod – Client		

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	8470
City, State:	Farmingto	on, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH1 @ 5'			
Sampled by	•	TN	Date:	4-Oct-95 Time:	9:45
Analyzed by	/ :	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8470-3522	BH1 @ 5'	68 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)alx 10/6/15 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;			Date:	6-Oct-95
Company:	Tierra Env	vironmental		I	COC No.:	3522
Address:	lress: P.O. Box 15250			9	Sample No.	8471
City, State:	Farmingto	n, NM 87499			Job No.	4-1247
Project Nam	ne:	Apache Junction				
Project Loca	ation:	BH1 @ 10'				
Sampled by	:	TN	Date:	4-Oct-95	Time:	10:10
Analyzed by	/:	BV	Date:	5-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8471-3522	BH1 @ 10'	65 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

)ahr 10/6/95 Approved by: Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	Address: P.O. Box 15250			Sample No.	8472
City, State:	Farmingto	on, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH1 @ 15'			
Sampled by	•	TN	Date:	4-Oct-95 Time:	10:30
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Junction	
8472-3522	BH1 @ 15'	<25 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: (_)~ 4/ 10/5/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis				Date:	6-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3522
Address:	P.O. Box	15250			Sample No.	8473
City, State:	Farmingto	n, NM 87499			Job No.	4-1247
Project Nam	ne:	Apache Junction				
Project Loca	ation:	BH2 @ 5'				
Sampled by	:	TN	Date:	4-Oct-95	Time:	11:05
Analyzed by	/:	BV	Date:	5-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8473-3522	BH2 @ 5'	51 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

)~4 10/6/95 Approved by: Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC	No.: 3522
Address:	P.O. Box	15250		Sampl	le No. 8474
City, State:	Farmingto	on, NM 87499		Job N	lo. 4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH2 @ 10'			
Sampled by	1	TN	Date:	4-Oct-95 Time:	11:25
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Junction	
8474-3522	BH2 @ 10'	<25 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a.62 10/6/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	1			Date:	6-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3522
Address:	P.O. Box	15250			Sample No.	8475
City, State:	Farmingto	n, NM 87499			Job No.	4-1247
Project Nam	ne:	Apache Junction				
Project Loca	ation:	BH2 @ 15'				
Sampled by		TN	Date:	4-Oct-95	Time:	12:30
Analyzed by	/ :	BV	Date:	5-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8475-3522	BH2 @ 15'	92 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

)~4 10/6/95 Approved by: (Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	8476
City, State:	Farmingto	on, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH3 @ 5'			
Sampled by	:	TN	Date:	4-Oct-95 Time:	13:15
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8476-3522	внз @ 5'	15,980 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)aby 10/6/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	8477
City, State:	Farmingto	n, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH3 @ 10'			
Sampled by	:	TN	Date:	4-Oct-95 Time:	13:30
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Junction	
8477-3522	BH3 @ 10'	340 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: Ja 4/ Date: 10/6/95

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	3		Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	8478
City, State:	Farmingto	on, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH3 @ 15'			
Sampled by	1	TN	Date:	4-Oct-95 Time:	13:55
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Junction	
8478-3522	BH3 @ 15'	1,469 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a 6/ 10/6/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nob	is		Date:	6-Oct-95
Company:	Tierra Er	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	8479
City, State:	Farmingt	on, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH4 @ 5'			
Sampled by		TN	Date:	4-Oct-95 Time:	14:15
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
•	Apache Junction	
8479-3522	BH4 @ 5'	2,200 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/6/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis			Date:	6-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3522
Address:	P.O. Box	15250		Sample No.	. 8480
City, State:	Farmingto	n, NM 87499		Job No.	4-1247
Project Nam	ne:	Apache Junction			
Project Loca	ation:	BH4 @ 10'			
Sampled by	:	TN	Date:	4-Oct-95 Time:	14:30
Analyzed by	/:	BV	Date:	5-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8480-3522	BH4 @ 10'	97 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)~4/ Date: 10/6/95

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobi	s			Date:	6-Oct-95
Company:	Tierra En	vironmental			COC No.:	3522
Address:	P.O. Box	15250			Sample No.	8481
City, State:	Farmingt	on, NM 87499			Job No.	4-1247
Project Nam	ne:	Apache Junction				
Project Loca	ation:	BH4 @ 15'				
Sampled by	:	TN	Date:	4-Oct-95	Time:	14:50
Analyzed by	/:	BV	Date:	5-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Junction	
8481-3522	BH4 @ 15'	495 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: $\int dx'$ Date: $\int dx' dx'$

P. O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis			Da	ate:	12-Oct-95
Company:	Tierra Env	vironmental		CC	OC No.:	3549
Address:	P.O. Box	15250		Sa	mple No.	8675
City, State:	Farmingto	n, NM 87499		Ja	ob No.	2-1000
Project Nan	ne:	Apache Station				
Project Loca	ation:	NE Corner Tank 8'				
Sampled by	<i>י</i> :	TN	Date:	11-Oct-95 Ti	me:	10:05
Analyzed by	y:	HR	Date:	12-Oct-95		
Type of Sar	mple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
0075 0540	Apache Station	E2E mg/kg
8675-3549	NE Corner Tank 8'	525 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/12/95 Date:

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis				Date:	12-Oct-95
Company:	Tierra Env	ironmental			COC No.:	3549
Address:	P.O. Box	15250			Sample No.	8676
City, State:	Farmingto	n, NM 87499			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	W Corner Tank 7'				
Sampled by	:	TN	Date:	11-Oct-95	Time:	10:45
Analyzed by	/:	HR	Date:	12-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8676-3549	W Corner Tank 7'	1,245 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/12/95 Date:

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	1			Date:	12-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3549
Address:	P.O. Box	15250			Sample No.	8677
City, State:	Farmingto	on, NM 87499			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	E Corner Tank 8'				
Sampled by	:	TN	Date:	11 -O ct-95	Time:	10:30
Analyzed by	/:	HR	Date:	12-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory	Sample Identification	Total Petroleum
Identification		riyurucarboris
	Apache Station	
8677-3549	E Corner Tank 8'	1,524 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a 4/ Date: 10/12/95

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	3			Date:	12-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3549
Address:	P.O. Box	15250			Sample No.	8678
City, State:	Farmingto	on, NM 87499			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	Closure SE Hole #1				
Sampled by	:	TN	Date:	11-Oct-95	5 Time:	15:30
Analyzed by	/:	HR	Date:	12-Oct-95	5 .	
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8678-3549	Closure SE Hole #1	29 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: $\int a \frac{1}{\sqrt{2}} \int dx$ Date: $\int a \frac{1}{\sqrt{2}} \int dx$

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis				Date:	12-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3549
Address:	P.O. Box	15250			Sample No.	8679
City, State:	Farmingto	n, NM 87499			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	Closure SE Hole #2				
Sampled by	•	TN	Date:	11-Oct-95	Time:	15:35
Analyzed by	/:	HR	Date:	12-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8679-3549	Closure SE Hole #2	<25 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a 4/ 10/12/97 Date:

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis				Date:	12-Oct-95
Company:	Tierra Env	ironmental			COC No.:	3549
Address:	P.O. Box	15250			Sample No.	8680
City, State:	Farmingto	n, NM 87499			Job No.	2-1000
Project Nam	ne:	Apache Station		Ŷ		
Project Loca	ation:	Closure SE Hole #3				
Sampled by	:	TN	Date:	11-Oct-95	Time:	15:40
Analyzed by	/:	HR	Date:	12-Oct-95	i	
Type of San	nple:	Soil				

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8680-3549	Closure SE Hole #3	<25 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/12/93 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499
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Method of Shipment: Rush 24-48 Hours 10 Working Days Special Instructions: Authorized by: (Client Signature Must Accompany Request) Date Date 10 Working Days Special Instructions:	Relinqui	shed by:	Date/Time	Re	ceived by:			Date/Time	
Authorized by: Client Signature Must Accompany Request) Date Date Client Signature Must Accompany Request)	Method	of Shipment:		R	sh	24-48 Hours	10 Working Days	Special Instructions:	
(Client Signature <u>Must</u> Accompany Request)	Authoriz	ed by:	Date						
-		(Client Signature <u>Must</u> Accompany Request)							

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	1		Date:	17-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3574
Address:	909 W. A	pache		Sample No.	8740
City, State:	Farmingto	n, NM 87401		Job No.	2-1000
Project Nam	ne:	Apache Station			
Project Loca	ation:	#1 Tank Pit 2			
Sampled by	:	TN	Date:	16-Oct-95 Time:	11:45
Analyzed by	/:	HR	Date:	17-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8740-3574	#1 Tank Pit 2	155 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a 4/ Date: 10/17/95

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	·		Date:	17-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3574
Address:	909 W. A	pache		Sample No.	8741
City, State:	Farmingto	n, NM 87401		Job No.	2-1000
Project Nam	ne:	Apache Station			
Project Loca	ation:	#2 Tank Pit 2			
Sampled by	:	TN	Date:	16-Oct-95 Time:	11:50
Analyzed by	/:	HR	Date:	17-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8741-3574	#2 Tank Pit 2	184 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/17/95 Date:

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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	S		Date:	17-Oct-95
Company:	Tierra En	vironmental		COC No.:	3574
Address:	909 W. A	Apache		Sample No.	8742
City, State:	Farmingto	on, NM 87401		Job No.	2-1000
Project Nam	ne:	Apache Station			
Project Loca	ation:	#3 Tank Pit 2			
Sampled by	:	TN	Date:	16-Oct-95 Time:	13:10
Analyzed by	y:	HR	Date:	17-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum
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	Apache Station	
8742-3574	#3 Tank Pit 2	115 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/17/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



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TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;			Date:	17-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3574
Address:	909 W. A	pache			Sample No.	[°] 8743
City, State:	Farmingto	on, NM 87401			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	Lact Unit #1 Pit #1				
Sampled by	':	TN	Date:	16-Oct-95	Time:	11:25
Analyzed by	y:	HR	Date:	17-Oct-95		
Type of Sar	mple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8743-3574	Lact Unit #1 Pit #1	370 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)~44 10/17/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;			Date:	17-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3574
Address:	909 W. A	pache			Sample No.	8744
City, State:	Farmingto	n, NM 87401			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	Lact Unit #2 Pit #1				
Sampled by		TN	Date:	16-Oct-95	i Time:	11:30
Analyzed by	/ :	HR	Date:	17-Oct-95	i	
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8744-3574	Lact Unit #2 Pit #1	60 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)= 4x 10/17/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

ON SITE TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	s		Date:	17-Oct-95
Company:	Tierra En	vironmental		COC No.:	3574
Address:	909 W. A	A <i>pache</i>		Sample No.	8745
City, State:	Farmingt	on, NM 87401		Job No.	2-1000
Project Nam	ne:	Apache Station			
Project Loca	ation:	Lact Unit #3 Pit #1			
Sampled by	:	TN ·	Date:	16-Oct-95 Time:	11:35
Analyzed by	y:	HR	Date:	17-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8745-3574	Lact Unit #3 Pit #1	490 <i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

)a 4 10/17/15 Approved by: Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

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ON SITE FECHNOLOGIES, LTD. 657 W. Maple LAB: (5 LAB: (5	Date: le • P. O. Box 2606 • Farmington NM 87499 (505) 325-5667 • FAX: (505) 325-6256	01	1: 155-		Pageof	
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DEC Company Treve A Release	elt Ref Dept.		ng Address			
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City, State, Zip + Almen inte fam.	N. W. 87401	Leiel	ohone No.	Te	elefax No.	
Sampling Location:			ANAL	YSIS REQUE	STED	
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SAMPLE IDENTIFICATION	SAMPLE MATRIX PRES.					
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Relinquished by:	Date/Time	Received b			Date/Time	
Relinquished by:	Date/Time	Received b		-	Date/Time	
Method of Shipment:		Rush	24-48 Hours 10	Working Days	Special Instructions:	
Authorized by: John Meridian	Date $\frac{1}{2} \frac{\partial f}{\partial t}$					
(Client Signature <u>Must</u> Accompany F	Request)					
	Distribution: White – On Site Yellow – LAB	Pink – Sampler	Goldenrod – Client]

TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis			Date:	19-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3584
Address:	909 W. A	pache		Sample No.	8781
City, State:	Farmingto	n, NM 87401		Job No.	2-1000
Project Nam	ie:	Apache Station			
Project Loca	ation:	Lact Pit 2 #1			
Sampled by	:	TN	Date:	18-Oct-95 Time:	9:20
Analyzed by	/:	HR	Date:	19-Oct-95	
Type of San	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8781-3 <u>5</u> 84	Lact Pit 2 #1	162 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	29	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	931	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: Da 5 Date: 10/19/95

P. O. BOX 2606 • FARMINGTON, NM 87499

Treasure Burger and supervision for a success

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	S			Date:	19-Oct-95
Company:	Tierra En	vironmental			COC No.:	3584
Address:	909 W. A	Apache			Sample No.	8782
City, State:	Farmingt	on, NM 87401			Job No.	2-1000
Project Nam	ne:	Apache Station				
Project Loca	ation:	Lact Pit 2 #2				
Sampled by	•	TN	Date:	18-Oct-95	Time:	9:22
Analyzed by	y:	HR	Date:	19-Oct-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
	Apache Station	
8782-3584	Lact Pit 2 #2	677 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	29	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	931	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by:)a 52 10/19/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5		Date:	19-Oct-95
Company:	Tierra Env	vironmental		COC No.:	3584
Address:	909 W. A	pache		Sample No.	8783
City, State:	Farmingto	on, NM 87401		Job No.	2-1000
Project Nam	ne:	Apache Station			
Project Loca	ation:	Lact Pit 2 #3			
Sampled by	:	TN	Date:	18-Oct-95 Time:	9:25
Analyzed by	/:	HR	Date:	19-Oct-95	
Type of Sar	nple:	Soil			

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8783-35 <u>84</u>	Lact Pit 2 #3	<25 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	29	. 22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	931	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/19/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

The Condense of Brits and Prince of Second Second Prince Sec

. . . TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	•				Date:	27-Oct-95
Company:	Tierra Env	vironmental				COC No.:	3619
Address: P.O. Box 15250				Sample No.	8939		
City, State:	Farmingto	n, NM 874	99			Job No.	2-1000
Project Nam	ne:	Apache S	Station				
Project Loca	ation:	Tank #1	Pit #4				
Sampled by	:	PN		Date:	24-Oct-9	95 Time:	14:20
Analyzed by	/:	HR		Date:	27-Oct-9	95	
Type of Sar	nple:	Soil					

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8939-3619	Tank #1 Pit #4	61 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	39	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	873	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/27/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis					Date:	27-Oct-95
Company:	Tierra Env	ironmental				COC No.:	3619
Address:	P.O. Box	15250				Sample No.	8940
City, State:	Farmingto	n, NM 874	99			Job No.	2-1000
Project Nam	ne:	Apache S	Station				
Project Loca	ation:	Tank #1	Pit #5 Berm				
Sampled by	:	PN		Date:	24-Oct-	95 Time:	14:30
Analyzed by	/:	HR		Date:	27-Oct-	95	
Type of Sar	nple:	Soil					

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
8940-3619	Tank #1 Pit #5 Berm	201 mg/kg

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	39	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	873	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 10/27/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

	CHAIN OF	CUSTO	DY REC	ORD			
TECHNOLOGIES, LTD. 657 W. Maple • 1 LAB: (505)	P. O. Box 2606 • Farmingtor) 325-5667 • FAX: (505) 325	Date:	1 cy 1	i.		Page	of)
Purchase Order No.: Job No.			Name			Title	
Name //c// - ///	1/05,5		Company				
DECOMPany T, C, CH / Manufiel	Let Re C Dept.		Mailing Add	Iress			
SEXT Address No Kox 15-250			RESI City, State,	Zip	-		
City, State, Zip チュー・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	. M. 8.7401		Telephone	No.		elefax No.	
- -				A	NALYSIS REQUI	ESTED	
A PAChe Station							
Sampler: $Tb c d Nb i's$							
SAMPLE IDENTIFICATION	SAMPLE NATE N	ATRIX PRES.					LAB ID
Trays 544. P. + #1	10/24 136		1				
Trans. StA. E. D. tch	10/24 1 450		1				
TANK#1 D:+#4	11/24 2 2/11		7				
TANK#1 RI# 5 Bern	10/24 7.3ch	5 m	7				1
DUCIF/c J D.+ #1 Dera	10/2 1 July		7				
11 11 #2 Be/m	1/2/24 3-5/		7				
11 11 # 5 Belm	10/24 314/0		7				
Relinquished by:	Date/Time		Received by:	K/		Date/Time	10/A/10 10 10
Relinquished by:	Date/Time		Received by:			Date/Time	
Relinquished by:	Date/Time		Received by:			Date/Time	
Method of Shipment:			Rush	24-48 Hours	10 Working Days	Special Instructi	ons:
Authorized by: <u>(Client Signature Must</u> Accompany Req.	uest) Date 101	27/45-					
	Distribution: White – On Site	Yellow – LAB Pi	nk – Sampler Gol	denrod – Client			

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LAB: (505) 325-5667

TECHNOLOGIES, LTD.

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5			Date:	3-Nov-95
Company:	Tierra Env	vironmental			COC No.:	3556
Address: P.O. Box 15250				Sample No.	9067	
City, State:	Farmingto	on, NM 8749.	9		Job No.	95042
Project Nam	ne:	Apache St	ation			
Project Loca	ation:	#1 Transfe	er Pit (Closure)			
Sampled by	:	TN	Date:	31-Oct-95	Time:	9:30
Analyzed by	y:	DC	Date:	3-Nov-95		
Type of Sar	nple:	Soil				

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
9067-3556	#1 Transfer Pit (Closure)	1,202 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	35	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	908	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: Date: $\frac{1}{1/3}/5^{-5}$

P. O. BOX 2606 • FARMINGTON, NM 87499

ON SITE

OFF: (505) 325-8786

LAB: (505) 325-5667

TECHNOLOGIES, LTD.

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis				Date:	3-Nov-95
Company:	Tierra Env	vironmental			COC No.:	3556
Address:	Address: P.O. Box 15250				Sample No.	9068
City, State: Farmington, NM 87499				Job No.	95042	
Project Nam	ne:	Apache Sta	ation			
Project Loca	ation:	#2 Transfe	r Pit (Closure)			
Sampled by	:	TN	Date:	31-Oct-95	Time:	9:35
Analyzed by	y:	DC	Date:	3-Nov-95		
Type of Sar	mple:	Soil				

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
9068-3556	#2 Transfer Pit (Closure)	721 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	35	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	908	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 11/3/15 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499

ON SITE

OFF: (505) 325-8786

LAB: (505) 325-5667

TECHNOLOGIES, LTD.

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	;			Date:	3-Nov-95	
Company:	Tierra Env	vironmental			COC No.:	3556	
Address:	P.O. Box	15250	Sample No. 90				
City, State:	Farmingto	on, NM 8749		95042			
Project Nam	ne:	Apache Si	tation				
Project Loca	ation:	#3 Transf	er Pit (Closure)				
Sampled by	' :	TN	Date:	31-Oct-95	Time:	9:45	
Analyzed by	y:	DC	Date:	3-Nov-95			
Type of Sar	mple:	Soil					

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
9069-3556	#3 Transfer Pit (Closure)	630 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	35	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	908	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: $Data = \frac{1}{13/35}$

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TECHNOLOGIES, LTD.

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5			Date:	3-Nov-95			
Company:	Tierra Env	vironmental			COC No.:				
Address:	P.O. Box	15250		Sample No. 9					
City, State:	Farmingto	on, NM 8749		Job No.	95042				
Project Nam	ne:	Apache Si	tation						
Project Loca	ation:	#4 Transf	er Pit (Closure)						
Sampled by	' :	TN	Date:	31-Oct-95	Time:	9:50			
Analyzed by	y:	DÇ	Date:	3-Nov-95					
Type of Sar	mple:	Soil							

Laboratory Analysis

Laboratory	``````````````````````````````````````	Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
9070-3556	#4 Transfer Pit (Closure)	345 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	35	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	908	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: 11/3/95 Date:

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	Phil Nobis	5			Date:	3-Nov-95			
Company:	Tierra Env	vironmental			COC No.:				
Address:	P.O. Box	15250			Sample No.	9071			
City, State:	Farmingto	on, NM 8749		Job No.	95042				
Project Nam	ne:	Apache St	tation						
Project Loca	ation:	Pit Bottom	n (Grab) Transfer Point						
Sampled by		TN	Date:	31-Oct-95	Time:	9:20			
Analyzed by	y:	DC	Date:	3-Nov-95					
Type of Sar	nple:	Soil							

Laboratory Analysis

Laboratory		Total Petroleum
Identification	Sample Identification	Hydrocarbons
	Apache Station	
9071-3556	Pit Bottom (Grab) Transfer Point	714 <i>mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
Laboratory Fortified Blank Soil - QCBS1	35	22 - 46	mg/kg
Laboratory Fortified Spike Soil - QCSS1	908	828 - 1024	mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: $\int -4$ Date: 11/3/15

P. O. BOX 2606 • FARMINGTON, NM 87499

W. Maple • P. O. Box 2606 • Fax: (5) LAB: (505) 325-5667 • FAX: (5) LAB: (505) 325-5667 • FAX: (5) Job No.	OF CUSTODY RECORD	uington NM 87499 35) 325-6256	O Name Title	RT Company	RDL Mailing Address	RESI City, State, Zip	Telephone No. Telefax No.	ANALYSIS REQUESTED	rt of	Numbe			5976 . 4	767% × -	1 1 t n/ 1 1 1 1			The 2^{-5} 5^{-2} 0^{-2} Received by: 2^{-2} 10^{-2} 11^{-2}	me Received by: Date/Time	me Received by: Date/Time	Rush 24-48 Hours 10 Working Days Special Instructions:	
	CHAIN OF	W. Maple • P. O. Box 2606 • Farmington LAB: (505) 325-5667 • FAX: (505) 325-6	Job No.	11 6	Dept.						SAMPLE DATE TIME M		Strate State	12/10 010	1. (. el 1/31/92 0°.) v			Date/Time	Date/Time	, Date/Time		Date

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STOCK WELL ANALYSIS





LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	Phil Nobis			Dates	•	23-Oct-95		
Company:	Tierra Environmental			COC No.: 35:				
Address:	P.O. Box	Samp	8809					
City, State:	Farmingto	Job I	Vo.	4~1247				
Project Nam	ie:	Apache Station						
Project Loca	ation:	Stock Water Well						
Sampled by	:	ML	Date:	20-Oct-95 Time	:	10:36		
Analyzed by	/:	DC	Date:	20-Oct-95				
Type of Sar	nple:	Liquid						

Aromatic Volatile Organics

Component		Result	Units of Measure	Detection Limit	Units of Measure
<u> </u>					
Benzene	ļ	0.3	ug/L	0.2	ug/L
Toluene		1.0	ug/L	0.2	ug/L
Ethylbenzene		3.2	ug/L	0.2	ug/L
m,p-Xylene		< 0.2	ug/L	0.2	ug/L
o-Xylene		< 0.2	ug/L	0.2	ug/L
	TOTAL	4.5	ug/L		

Method - SW-846 EPA Method 8020 Arometic Volatila Organics by Gas Chromatography

Approved by:)-4 Date: 10/23/95

P. O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 20-Oct-95

OFF: (505) 325-8786

Internal QC No.:	0419-STD
Surrogate QC No.;	0420-STD
Reference Standard QC No.:	0355-STD

Method Blank

		Units of
Analyte	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

Calibration Check

Anaivte	Units of Massure	True Value	Analyzed Velue	% Diff	l imit
Benzene	ppb	20	21	4	15%
Toluene	ppb	20	21	4	15%
Ethylbenzene	ppb	20	20	2	15%
m,p-Xylene ·	ppb	40	42	4	15%
o-Xylene	ррь	20	21	4	15%

Matrix Spike

Anəlyte	1- Percent Recovered	2 - Percent Recovered	Limīt	%RSD	Limit
Ranzana		80	(39,150)	3	20%
Toluene	86	90	(46-148)	2	20%
Ethylbenzene	90	92	(32-160)	1	20%
m,p-Xylene	100	101	(35-145)	1	20%
o-Xylene	82	86	(35-145)	3	20%

Surroga	ate Recoveries	
Laboratory Identification	S1 Percent	S2 Percent
<u></u>	Recovered	Recovered
Limits	(70-130)	
8809-3596	102	
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S1: Flourobenzene

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P. O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-5667

API WATER ANALYSIS

Attn:	Phil Nobis				Date:	25-Oct-95
Company:	Tierra Env	vironmental			COC No.:	3596
Address:	P.O. Box	15250			Sample ID:	8810
City, State:	Farmingto	n, NM 87499			Job No.:	4-1247
Project Nam	1 0 :	Apache Station				
Project Loca	ation:	Stock Water Well				
Sampled by	:	ML	Date:	20-0ct-95	Time:	10:38
Analyzed by	/:	DC	Date:	25-Oct-95	•	

API RP-45 Laboratory Analysis

DISSOL VED	SOLIDS			OTHER PROPERTIES	
CATIONS				рН	10.11
Sodium	Na	497 mg/L		Specific Gravity 60/60 F	1.0082
Calcium	Ca	2.2 mg/L		Resistivity ohm-meters	4.1494
Magnesium	Mg –	0.45 mg/L		Total Hardness as CaCO3 mg/L	7
Potassium	к 🗍	5.3 mg/L			
ANIONS				Comments:	
Chloride	Ci	18 mg/L		-	
Sulfate	s04 -	812 mg/L	6.50		
Carbonate	C03	301 mg/L			
Bicarbonate	нсоз –	42 mg/L			
Hyraxide	он _	< <u>1</u> mg/L		*ND: Not Detectable - Positive/Neg **NA: Not Analyzed	ative
Total Dissolv	red Solids				
Calculated, Sum d	of Cation/Anion	<u>1,678</u> mg/L			
Analyzed Valua	-	1,529 mg/L			
Iron	Fe (Dissolved)	0.3 mg/L			
Sulfide	H2S _	NA mg/L			
	-				

Approved by: Date: 10/25/95

P. O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

APJ RP-45 Water Analysis

Date: 25-Oct-95

Quality Control Sample

OFF: (505) 325-8786

•	Laboratory	True	Analyzed	Units of		Limit
Parameter	Identification	Value	Value	Measure	% Diff	% Diff
Sodium, Ne	0380-QC	3.02	3.01	mg/L	0	10
Calcium, Ca	0380-QC	1.54	1.68	mg/L	9	10
Magnesium, Mg	0380-QC	4.19	4.02	rng/L	-4	10
Potessium, K	0380-QC	2.10	1.99	mg/L	-5	10
Chloride, Cl	0434-QC	46.0	46,5	mg/L	1	10
Sulfate, SO4	0434-QC	299	336	mg/L	12	10*
Alkalinity	0434-QC	265	269	mg/L	2	10
Iron, Fe	0289-QC	2.00	1.98	mg/L	- 1	10
Sulfide, SO2	NA	NA	NA	mg/L	NA	10
pH	0434-QC	9.1	9.0		- 1	10
Conductivity	0434-QC	1642	1586	uS/cm	3	15

Matrix Spike

	Laboratory	Anəlyzed	Matrix	Spike	Units of	Spike
Parameter	Identification	Value	Spike	Value	Measura	Recovery
Sodium, Na	8894-3603	2.04	1.00	3.05	mg/L	101%
Calcium, Ca	8894-3603	0.84	2.50	3,37	mg/L	101%
Magnesium, Mg	8820-3599	0.89	2.50	3.49	mg/L	104%
Potassium, K	8894-3603	0.14	1.00	1.39	mg/L	125%
Iron, Fe	8810-3596	0.15	0.50	0.62	mg/L	94%

Blank

	Laboratory	Analyzed	Units of
Parameter	Identification	Value	Measure
Sodium, Na	Method Blank	<0.2	mg/L
Calcium, Ce	Method Blank	<0.05	mg/L
Megnesium, Mg	Method Blank	<0.05	mg/L
Potessium, K	Method Blank	<0.05	mg/L
Iron, Fe	Method Blank	<0.1	mg/L
Chlorida, Cl	Method Blank	<1	mg/L
Sulfate, SO4	Method Blank	<1	mg/L
Sulfide, SO2	Method Blank	NA	mg/L
Conductivity	Method Blank	<3	uS/cm

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P. O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

ON SITE Date:	Sampler. NICHARE K. LANC SAMPLE SAMPLE IDENTIFICATION DATE TIME MATRIX PRES. Number of Container VI ON JUN Container	Arte Sty. War 10/20 1030 With 16/20 2 V	1 1038 / Mare 1 1 1 045 V Mare 2 1 1 1		Pleinquished by: Date/Time 12/2/5 Received by: Date/Time	Received by: Date/Time Received by: Date/Time	Reinquished by: Date/Time Received by: Date/Time Felinquished by: Date/Time Received by: Date/Time Felinquished by: Date/Time Received by: Date/Time
Page / of / Telefax No. UESTED UESTED UESTED UAB ID UAB ID	LAB ID	8809-3516	8810-3596 160-3596		Date Time to baker 1945	Date/Time to fac fas 1245	Date/Time to/20/45 /24/2

ON SITE TECHNOLOGIES

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SITE PHOTOGRAPHS

STOREAGE TANK AREA PHOTOGRAPHS

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TRANSFER STATION AREA PHOTOGRAPHS

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RE-CYCLED	SOILS DOCU	MENTATION	

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MEMORANDUM

November 3, 1995

To: Tim Kenny Giant Refining

From: Phil Nobis VC Tierra Environmental Company, Inc.

RE: USE OF RECYCLED SOIL AS BACKFILL, APACHE STATION:

Some of the soil used at Apache Station as backfill was soil recycled at our landfarm facility.

The soil was originally contaminated with J-P-4 Jet fuel as a result of two separate vehicle accidents. Those accidents occurred on April 6 and April 26, 1993 respectively, the first at Manzaneras Mesa at Mile Post 84 Highway 64, Tierra Job # 93016and the second at Antonito, Colorado Highway 17, 16 miles west of town, Tierra Job #93022. They were both single vehicle accidents involving tankers belonging to Steer Tank Lines. J-P-4 was spilled and soil contaminated.

The soil from both accidents was removed to our landfarm on Crouch Mesa in San Juan County, N.M. and stockpiled on plastic until a full TCLP analysis could be completed. The analysis, a copy of which is enclosed was furnished to the New Mexico Oil Conservation Division (OCD) along with a request from Tierra to spread and treat the material. OCD declared the material exempt by characteristic analysis and allowed us to spread and treat the soil. On September 23, 1993 Dr. Dan Hoover, then Tierra Director of Research, requested permission from OCD to recycle the soil from Antonito based on an analysis of soil samples taken by him of the material for BTEX and TPH. Both analysis were nondetect. On November 11, 1993, I requested permission from the OCD to recycle the soil from Manzaneras Mesa based on the analysis of soil samples taken by Dr. Hoover for BTEX and TPH. TPH at that time was 27 ppm and BTEX non-detect. The soil has been stockpiled on the landfarm, segregated from other soils being remediated. Some has been sold as backfill and the remaining 1,400 cubic yards of material were transported to Apache Station as backfill. While the soil was being treated, each job was segregated. No co-mingling of the soil occurred, nor does it occur at any other time on our facility. When OCD gave permission to recycle the soil it was then gathered together in a stockpile also segregated from the rest of the facility.

The soil in question was declared exempt by characteristic analysis prior to spreading and treatment. It was then declared clean following treatment, based on BTEX and TPH analysis, complying with OCD regulations.

The Apache Station site is being closed pursuant to OCD regulations allowing 1000 ppm residual TPH., based on the required site assessment.

Our position is that our recycled soil is clean, backed up by appropriate analysis and OCD authority. Even at some future point should regulations change as they have in the past, the analysis stands. I would also point out that "clean virgin backfill" can in allot of cases be questionable as to it's origin and it requires no analysis what so ever.

I have also enclosed the two letters from OCD authorizing Tierra to recycle the soils from Job # 93016 and 93022. In the letter dated December 1, 1993 it refers to two projects, 93016 and 93005. You received no material from 93005. Just as a point of information, included also are the final analysis for BTEX and TPH. You will note that 93016 as an example refers to Arkansas #6. In those days we used code names for our clients. A practice we have since discontinued. Arkansas #6 is Steer Tanklines.

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

PCN

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT,

OIL CONSERVATION DIVISION



<u>= prug free</u>=

BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY December 1, 1993

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 87504 (505) 827-5800

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT NO. P-111-334-077</u>

Mr. Phillip C. Nobis Vice President Operations Tierra Environmental Corporation 909 W. Apache Farmington, New Mexico 87401

RE: APPROVAL TO RECYCLE REMEDIATED SOILS CROUCH MESA LANDFARM SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) has received your request dated November 11, 1993, for authorization to recycle remediated soils from your Crouch Mesa Landrarm located in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The request and attached analyses is for recycling the remediated soils from the Steer Tanklines accident (Project 93016) and the Rust Tractor pit closure (Project 93005). The laboratory analysis for Project 93016 shows the Total Petroleum Hydrocarbons (TPH) is 27 ppm and the Volatile Aromatic Organics (BTEX) is non-detect. The laboratory analysis for Project 93005 shows the TPH is 260 ppm and the BTEX is non-detect.

Based on the information provided in your request, the OCD hereby approves the removal of the remediated soils from the active portion of the landfarm under the following conditions:

1. The remediated soils from Project 93016 may be used at the landfarm facility for construction of roads, berms, and other dirt work operations or for backfill at environmental clean-up projects at oil and gas exploration and production operations. Any other use of the remediated soils must be reviewed by the OCD Santa Fe Office on a case-by-case basis and receive OCD approval prior to moving the soils.

Mr. Phillip C. Nobis December 1, 1993 Page 2

2. The remediated soils from Project 93005 may only be used at the Crouch Mesa Landfarm Facility for construction of roads, berm and other dirt work operations.

3. Comprehensive records for all remediated soils either moved within the landfarm or removed from the landfarm will be maintained at the facility. The records for all remediated soil will include: 1) the date, volume and final destination of soil moved, 2) the soil history including original place of contamination and exact cell location where the material was remediated, and 3) laboratory analyses of the remediated soils.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters, or the environment actionable under other laws and/or regulations. In addition, the OCD approval does not relieve you of liability for compliance with any other laws and/or regulations.

If you have any questions please do not hesitate to contact me at (505) 827-5884.

Sincerely,

ym Fronce,

Kathy M. Brown Geologist

xc: Denny Foust, OCD Aztec Office


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 November 11, 1993

Ms. Kathy Brown Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87504

RE: PERMISSION TO RECYCLE SOILS, TIERRA PROJECTS 93016 AND 93005

Dear Ms. Brown:

Enclosed herewith are the results of laboratory analysis conducted on composite soil samples on the above referenced projects which are currently at our Crouch Mesa Landfarm.

Project 93016, was JP-4 contaminated soil from Steer Tanklines accident, 4/7/93 M.P. 84 Hwy 64, containing 3194 cubic yards. Final Analysis indicates TPH is 27 ppm, BTEX is non-detect. Tierra would propose to use the remediated soil as roadbase, berm construction at the Crouch Mesa Landfarm or for backfill returning to the excavations resulting from oil and gas cleanups.

Project 93005 is from the Rust Tractor pit closure 4/16/93 containing 3180 cubic yards. Soil was contaminated with motor oil. (prior to OCD rule change re: industrial hydrocarbon contaminated soil acceptance). Final Analysis indicates TPH at 260 ppm, BTEX is non-detect. OCD current rules re: pit closures, allow levels of remediation to exceed 100 ppm in cases where there is no threat to groundwater or other environmental concerns. In this case Tierra would propose to use the soils from Project 93005, for roadbase, or berm construction upon the Crouch Mesa Landfarm facility only. It would not be returned to the Oil and Gas Fields nor used for any other purpose.

Ms. Kathy Brown November 11, 1993 Page 2

Accurate records of final disposition and where the material was used from both projects would be kept at the Tierra Office for OCD inspection.

If you have any questions or require more information please call me. Thank you for your cooperation.

Sincerely,

TIERRA ENVIRONMENTAL CORPORATION

Philly C. Abler

Phillip C. Nobis Vice President Operations

cc: D. Foust OCD Aztec, N.M. File 93005 File 93016



Attn: Dan Hoover, Ph.D 11/2/93 Date: Company: Tierra Environmental Corporation Lab ID: 1316 #0702 Address: 909 W Apache St. Sample No. 2-1000 City, State: Farmington, NM 87499 Job No. **Project Name:** Tierra Environmental Project No. 93016 teet te

Project Location:					
Sampled by:	LH	Dat	e: 11/2	./93 Time:	1100
Analyzed by:	TW	Dat	e: 11/2	./93	
Type of Sample:	Soil		. ·		•
•• •		-		-4	

Laboratory Analysis

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Laboratory Identification	Sample Ide	Sample Identification Tierra Environmental Project No. 93016 Arkansas #6		Total Petroleum Hydrocarbons 29 ppm wt.	
0702-1316	Tierra Environmental Pr Arkansas #6				
Tierra Jo	6# 93016				

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

11/2/93 Approved by: Date: L



PRIORITY POLLUTANTS / AROMATIC VOLATILE ORGANICS

1.1

Attn:	Dan Hoover	, Ph.D	74 - 14 14 - 14 - 14 - 14 - 14 - 14 - 14			Date:	11/3/93
Company:	Tierra Enviro	onmental Co	rporation			Lab ID:	1316
Address:	909 W Apa	che St.				Sample ID:	#0702
City, State:	Farmington,	NM 87499		-		Job No.	2-1000
Project Nam	ne:	Tierra Enviro	onmental l	Project No.	93016		·.
Project Loca	ation:	Arkansas #	5 1				
Sampled by	• . •	LH	Date:	11/2/93		Time:	1100
Analyzed by	/:	DC	Date:	11/3/93		in and the second	
Sample Mat	rix:	Soil	. i .			· · · · · · · · · · · · · · · · · · ·	

Aromatic Volatile Organics

Component	**Measured Concentration ug/L		
Benzene		ND	
Toluene		ND	
Chlorobenzene		ND	
Ethylbenzene		ND	
m,p-Xylene		ND	
o-Xylene		ND	
1,3-Dichlorobenzene		ND	
1,4-Dichlorobenzene		ND	
1,2-Dichlorobenzene		ND	
	TOTAL	0 ug/L	

ND - Not Detectable

** - Method Detection Limit, 2.0 ug/L

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

Approved by:(Date:



GOVERNOR

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-

P.02

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RON CURRY DEPUTY SECRETARY

April 28, 1993

Mr. R. Griffer Onsite Technologies Limited P.O. Box 2606 Farmington, New Mexico 87499

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

OCID Approval to Spread Approval to Spread Tierra Landfarm at Tierra Landfarm XM. Forour 5/3/93 Program Manager Hazardous and Radioactive Materials Bureau

ELH:sl/

cc: Garth Graves, Dist. Manager Roger Anderson, OCD Glenn Saums, SWQB file

REQUES	T FOR APPROVAL TO ACCEPT	SOLID WASTE	<u> </u>
1. RCRA Exem	ot: 🗆 Non-Exempt: 🛱 🍃	4	4. Generator
Verbal Appr	oval Received: Yes 🖉	No CA	Stears Tanklines
2. Destination	<u>Koge</u>	rAwaerson 5/3/9	5. Name of Orioinating Site
	Ū		
<u> </u>	andfarm Crouch Mesa	······	M.P. 64 Hwy 64
J. Address of 1	acinity Operator		b. Name of Transporter
909 West	Apache, Farmington,	NM	Doug Foutz/Diamond D
7. Location of	Material (Street Address or ULST	R)	8. State
420 Coun	ty Rd. 3100 San Juan	County	New Mexico
), <u>Check One</u>			
A. All requests for appr	over to accept oilfield exempt wastes will be accompa- over to accept non-oilfield exempt wastes will be acco	nied by a certification of wastel from impanied by a certification of waste st	the Generator; one certificate per job. atus from the Generator and the New
	Department or other appropriate government agency;	two certificates per job.	
C, All requests for appr and the Generator's	ertification of origin. No waste classified as hazardou	ied by necessary chemical anaylses to is by listing or testing will be approved	prove the material is non-hazardous I.
All transporters must c	ertify the wastes delivered are only those consigned fo	or transport.	
NET DECODIDTION O	E THE MATERIAL		
JP-4 Conta roll over	minated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over) Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over) Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	le accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	ele accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	sult of a vehic	ele accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re	esult of a vehic	ele accident (Tanker
JP-4 Conta roll over Lab report	aminated soils as a re to follow	sult of a vehic	at the end of the haul:
JP-4 Conta roll over Lab report	<u>A minated soils as a re</u> to follow <u>3,000</u> cy Known Vo	esult of a vehic nume (to be entered by the operator	ele accident (Tanker
JP-4 Conta roll over Lab report Lab report	aminated soils as a re to follow 3,000cy Known Vo mation above is true and complete to the best of r Duilly C. Note	Iume (to be entered by the operator Ty knowledge and belief. TITLE <u>Vice Presi</u> e	at the end of the hault: dentDATE
Imated Volume	aminated soils as a re to follow 3,000 cy Known Vo mation above is true and complete to the best of r Duilly C. Mobis	Iume (to be entered by the operator Ty knowledge and belief. TITLE <u>Vice Presic</u>	at the end of the hault:
JP-4 Conta roll over Lab report Lab report GNATURE	aminated soils as a re to follow 3,000 cy Known Vo mation above is true and complete to the best of r Dully C. Nobis 	Iume (to be entered by the operator Ty knowledge and belief. TITLE <u>Vice Presi</u>	at the end of the haul): dent DATE <u>5/3/9</u>
JP-4 Conta roll over Lab report Lab report GNATURE (PE OR PRINT NAME	aminated soils as a re to follow 3.000cy Known Vo mation above is true and complete to the best of r Dull C. Nobis Phillip C. Nobis	Iume (to be entered by the operator my knowledge and belief. TITLE <u>Vice Presic</u>	ele accident (Tanker at the end of the haul): dent
Imated Volume Imated	aminated soils as a re to follow 3.000cy Known Vo mation above is true and complete to the best of r Phillip C. Nobis Phillip C. Nobis	Iume (to be entered by the operator Ty knowledge and belief. TITLE	at the end of the haul:
Imated Volume imated Volume Preby certify that the infor GNATURE (PE OR PRINT NAME VPROVED BY	aminated soils as a re to follow 3.000cy Known Vo mation above is true and complete to the best of r <i>Phillp C. Nobis</i> Phillip C. Nobis	Iume (to be entered by the operator Thy knowledge and belief. TITLE	at the end of the haul:

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TESTS RESULTS LABORATORY 04/21/93

OB HLAMEER : 930934 ATTNI DAVE COM

CLIENT I.D...... ATE SAMPLED...... 04/15/93 INE SAMPLED...... 15:00 FORK DESCRIPTION...: 0068 5PT COMPOSITE

LABORATORY 1.0...: 930934-0001 DATE RECEIVED: 04/16/93 TIME RECEIVED....: 11:30 REMARKS SANPLED BY: T.W.

1. Warmer Street, Sec. 5

EST DESCRIPTION	FINAL RESULT	I INITS/TOTLITION	UNITS OF MEASURE	TEST NETHOD	DATE	TECH
ICLP Semivolatiles	N/A	1		EPA \$9-846 8270	N/A	N/A
CLP Valatiles		*10		EPA SU-\$46 5260	04/21/93	BIK
Senzene Carbon Tetrachloride Chlorobenzene Chloroform 2-Butanone Trichloroethene Vinvi chloride	<50 <50 <50 <100 <50 <50	50 50 50 50 50 50 50 50	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	EPA SN-846 8260 EPA SN-846 8260 EPA SN-846 8260 EPA SN-846 8260 EPA SN-846 8260 EPA SN-846 8260 EPA SN-846 8260		
1,2-Dichlorosthans Tetrachlorosthans 1,1-Dichlorosthans	<50 <50 <50	50 50 50	ug/L ug/L ug/L	EPA SW-846 8260 EPA SW-846 8260 EPA SW-846 8260		
Extraction - TCLP Semivolatiles	N/A			EPA SW-846 3520	N/A	K/A
class Jar Extraction for Mateis	N/A			EPA 54-846 1311	N/A	H/A
iless Jar Extraction-Semivolatiles	N/A			EPA SH-846 1311	8/A	N/A
Arsenic (As), extractable TCLP	N/A	0.05	mg/L	EPA SW-846 6010	N/A	R/A
arium (8a), extractable TCLP	N/A	0.05	ma/L	EPA SH-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	N/A	0.05	mg/L	EPA SW-846 6010	N/A	N/A
Lead (Pb), extractable TCLP	N/A	0.05	mç/L	EPA 59-846 6010	N/A	N/A
Selenium (Se), extractable TCLP	H/A	0.05	ng/L	EPA SH-846 6010	H/A	N/A
Silver (Ag), extractable TCLP	N/A	0,05	mg/L	EPA 50-846 6010	N/A	ui k
Lammability Potential Screening	Negative		+ or -	ASTH 04982-89	04/16/93	Rad
Cyanide, Resctive (CK)	N/A	5	ng/kg	EPA SH-646 7.3.3.2	N/A	. N/A
Corresivity by pH	N/A	0.10	pH unita	EPA SW-846 9040	N/A	4/A
Sulfide, Reactive	N/A	10	ma/ka	EPA SH-846 7.3.4.2	H/A	¥/4
Mercury (Hg), extractable, TCLP	N/A	0.002	mg/ L	EPA 58-846 7470	N/A	N/A
	1 	1	1733 H CORPUS (\$12),	MTH PADRE ISLAND DRI CHRISTI, TX 78408 269-2673	VE	

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LABORATORY TESTS RESULTS D6/21/93

JOB HEMBERT VIGOTA ATTN: DAVE COX

CLIENT 1.D...... DATE SAMPLED...... 04/15/93 TIME SAMPLED...... 15:00 WORK DESCRIPTION...: 0068 SPT COMPOSITE

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LABORATORY I.D., 1 930934-0001 DATE RECEIVED....: 04/16/93 TIME RECEIVED....: 11:30 REMARKS.....: SANPLED BY: T.W.

TERT	DESCRIPTION	FINAL RESULT	LINITEPTUTION	UNITS OF MEASURE	TEST METHOD	DATE:	TECHN
CLP	Semivolatiles	N/A	1		EPA SV-846 8270	N/A	N/A
TCLP	Valutilea		*10		EPA 54-846 8260	04/21/93	BJH
	Benzene	<50	50	ug/L	EPA SV-846 8260		
	Carbon TetrachLoride	<50	50	ug/L	EPA SV-846 8260		
	Chioropenzene	50	50	ug/L	EPA \$4-846 8260		
	Chioroform	00	50	ug/L	EPA 50-846 8260		
	Z-BULARON; Taiahiassatkana			Ug/L	EPA SU-846 8260		
	irichtorouthone Vieve obtoride	470	50	lug/L	EPA SV-846 8260		
	Yinyi Chidride 1 J-Dishigeesthebe	490	50		1EPA 54-846 8260		
A	T, 2-0 ichtoroethane	< <u>></u> U	20	ug/L	EPA 19-846 8260		
	letrachtoroethere	00	20	lug/L	EPA SN-846 8260		
	i,j-Dicalordelaame	00	50	ug/L	EPA SU-846 8260	1	
Extr	action - TCLP Semivolatiles	N/A			EPA 84-846 3520	N/A .	N/A
•	s Jar Extraction for Netals	H/A			EPA SW-846 1311	N/A	N/A
Glas	s der Extraction-Semivolatiles	H/A			EPA SU-846 1311	H/A	N/A
A. e	nic (AC), extractable TCLP	N/A	0.05	mg/L	EPA SU-846 6010	N/A	N/A
Berli	um (84), extractable TCLP	N/A	0.05	ma/L	EPA SH-846 6010	H/A	N/A
c In	ium (Cd), extractable TCLP	H/A	0,05	ng /L	EPA SH-046 6010	N/A	¥/A
Chro	mium (Cr), extractable TCLP	H/A	0.05	mg/L	EPA 54-846 6010	N/A	K/A
4	(Pb), extractable TCLP	N/A	0.05	ng/L	EPA 54-846 6010	N/A	h/A
setei	nium (Se), extractable TCLP	N/A	0.05	mg/L	EPA 50-846 6010	H/A	N/A
s i 🖪	er (Ag), extractable TCLP	N/A	0,05	99/ L	EPA 58-846 6010	K/A	N/A
7 L 	sability Patential Screening	Negative		+ or -	ASTM 04982-89	04/16/93	RAD
Yen	de, Reactive (CN)	N/A	5	ng/kg	EPA 54-846 7.3.3.2	W/A	N/A
or	sivity by ph	N/A	0,10	pH units	EPA SN-846 9040	N/A	N/A
ulf	ide, Reactive	H/A	- 10	mg/kg	EPA 54-846 7.3.4.2	N/A	NZA
er	ry (Hg), extractable, TCLP	H/A	0.002	mg/L	EPA SW-846 7470	N/A	N/A
		1		1733 NOR CORPUS C	TH PADRE ISLAND DRIVI HRISTI, TX 78408	E	

(\$12),289-2473

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RESULTS TESTS LABORATORY 04/21/93

ICE HLMAERI 930934 DIE TONERI CHISITE TECHNOLOGIES LINITED.

CLIENT 1.D...... DATE SAMPLED...... 04/15/93 TIME SAMPLED...... 15:00 WORK DESCRIPTION...: 0068 SPT COMPOSITE

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LABORATORY 1.D...: 930934-0001 DATE RECEIVED....; 04/16/93 TIME RECEIVED....: 11:30 REMARKS SAMPLED BY I T.W.

TEST DESCRIPTION	VINAL RESULT	LIMITS/ DILUTION	UNITE OF NEASURE	TEST HETICO	OATE	TECH
Netels Digest on Extracted Sample	N/A			EPA 54-846 3010	N/A	K/#
Zero Headspace Extraction-Volatile	Completed			EPA SN-846 1311	04/19/93	SEI
			· ·			
	-					
-						
			1733 WO Corpus (312) 2	RTH PADRE ISLAND DRI CHRISTI, TX 78408 89-2673	IVE	
		PAGE:2		алаан ал на таку (<u>на настри) (199</u> 6) († [†]		
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BRUCE KING covernor 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

> RÓN 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

Mazardous and Radioactive Materials Bureau

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

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEFARTMENT

OIL CONSERVATION DIVISION

TORUG FREE

POST OFFICE BOX 2088

STATE LAND OFFICE BUILDING SANTA FE NEW MEXICO 87504

(505) 827-5800

BRUCE KING

ANITA LOCKWOOD CABINET SECRETARY

October 26, 1993

CERTIFIED MAIL RETURN RECEIPT NO. P-667-241-140

Mr. Phillip C. Nobis Tierra Environmental Corporation 909 W. Apache Farmington, New Mexico 87401

RE: RECYCLING OF REMEDIATED SOILS CROUCH MESA LANDFARM SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Nobis:

The New Mexico Oil Conservation Division (OCD) has received your request dated September 23, 1993, for authorization to recycle remediated soil from your Crouch Mesa Landfarm located in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The laboratory analysis for the remediated soil (Sample ID 93022) shows that both the Total Petroleum Hydrocarbons (TPH) and the Volatile Aromatic Organics (BTEX) are non detect.

Based on the information provided in your request, the OCD hereby approves the removal of the remediated soils from the landfarm cell under the following conditions:

1. The remediated soils may be used at the landfarm facility for construction of roads, berm, and other dirt work operations or for backfill at environmental clean-up projects at oil and gas exploration and production operations. Any other use of the remediated soils must be reviewed by the OCD Santa Fe Office on a case-by-case basis and receive OCD approval prior to moving the soils.

Mr. Phillip C. Nobis October 26, 1993 Page 2

2. Comprehensive records for all remediated soils either moved within the landfarm or removed from the landfarm will be maintained at the facility. The records for all remediated soil will include: 1) the date, volume and final destination of soil moved, 2) the soil history including original place of contamination and exact cell location where the material was remediated, and 3) laboratory analyses of the remediated soils.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters, or the environment actionable under other laws and/or regulations. In addition, the OCD approval does not relieve you of liability for compliance with any other laws and/or regulations.

If you have any questions please do not hesitate to contact me at (505) 827-5884.

Sincerely,

- Bon

Kathy M. Brown Geologist

xc: Denny Foust, OCD Aztec Office



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

REGIONAL OFFICE

909 W. Apache

Farmington, NM 87401

505-325-0924

IIERRA ENVIRONMENTAL CORPORATION

September 23, 1993

Ms. Kathy M. Brown State of New Mexico Energy, Minerals & Natural Resources Department Oil Conversation Division P. O. Box 2088 Santa Fe, New Mexico 87504

Dear Ms. Brown:

This communication reports the completed remediation of soil (Code 93022) received by the Tierra Environmental Corporation Crouch Mesa Landfarm from Steere Tank Lines on May 20, 1993. The remediation plan was submitted tc your office on May 10, 1993 and approved by Roger Anderson on May 17, 1993. (Pursuant to Rule 711 of the Rules and Regulations of the Oil Conservation Division)

1:0-1

Post-remediation laboratory analysis for the Total Petroleum Hydrocarbons (TPH) and Benzene-Toluene-Ethylbenzene-Xylenes (BTEX) in the soil are:

	DATE	BTEX	TPH
Post-remediation	9/9/93	ND	ND

I am requesting that you accept these latest analyses as meeting the remediation specifications of the OCD with consequent approval for removal of the soil from the landfarm.

Sincerely,

TIERRA ENVIRONMENTAL CORPORATION

Van Hoom

L. Daniel Hoover, Ph.D Director of Research

TOTAL PETROLEUM HYDROCARBONS EPA Method 418.1

Tierra Environmental

Project ID:	Land Farm	Report Date:	09/10/93
Sample Matrix:	Soil	Date Sampled:	09/08/93
Preservative:	Cool	Date Received:	09/08/93
Condition:	Intact	Date Extracted:	09/09/93
	*******	Date Analyzed:	09/09/93

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/Kg)
93022	3597	ND	12.4

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:

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VOLATILE AROMATIC HYDROCARBONS

Tierra Environmental

Project ID:	Land Farm	Report Date:	09/10/93
Sample ID:	93022	Date Sampled:	09/08/93
Lab ID:	3597	Date Received:	09/08/93
Sample Matrix:	Soil	Date Extracted:	09/09/93
Preservative:	Cool	Date Analyzed:	09/10/93
Condition:	Intact		

Target Analyte	Concentration (ug/kg)	Detection Limit (ug/kg)
Benzene	ND	9.51
Toluene	ND	9.51
Ethylbenzene	ND	9.51
m,p-Xylenes	ND	19.0
o-Xylene	ND	. 19.0

ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Toluene-d8	98	81 -117%
	Bromofluorobenzene	97	74 -121%

Reference:

Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

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Review

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REQUEST FOR APPROL O ACCEPT SOUD WASTE	
1. RCRA Exempt: W Non-Exempt: W	4 Generator
Verbal Approval Received: Yes I No I	
2 Destination T:	Steere lank Lines
Crouch Mesa Farmington W	5. Name of Originating Site
	Antonito, Colorado
3. Address of Facility Operator	6 Name of Transmitter
909 West Apache, Farmington, NM 87401	Davin Trucking C
7. Location of Material (Street Address on ULSTR)	Dawn Trucking Company
Tierra Environmental Company tradicione Company	8. State
- Farmington	New Mexico
9. Check One	
 A full retriests for approval to accept oilfield exempt wastes will be accomparied by a cartification of waster from the B All retriests for approval to accept oilfield exempt wastes will be accomparied by a cartification of waster from the 	e Generator; one certificate per job.
Aferico Environment Department or other appropriate assessment accompanied by a certification of wasta atal	us from the Generator and the New
All requests for approval to accept non-exampt wates must be accompanied by necessary chemical anavises to a	Tove the material is not the
aim ine generator a certification of origin. No waste classified as herardous by listing or testing will be approved.	The second s
All transporters must cartify the wastes delivered are only those consigned for transport.	
RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami	nated with approximately 800
RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of	nated with approximately 800
RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of hauling approximately 16+ loads of contaminated soil from	nated with approximately 800 Farmington, NM., will be
RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of hauling approximately 16+ loads of contaminated soil from County, Colorado to the Tierra Environmental Company loads	nated with approximately 800 Farmington, NM., will be the site in Antonito, Conejos
RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of hauling approximately 16+ loads of contaminated soil from County, Colorado to the Tierra Environmental Company landf San Juan County, New Mexico.	nated with approximately 800 Farmington, NM., will be the site in Antonito, Conejos arm located on Crouch Mesa
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RIEF DESCRIPTION OF THE MATERIAL: Sandy loam soil matrix, contami gallons of JP-4 Fuel (Aviation). Dawn Trucking Company of hauling approximately 16+ loads of contaminated soil from County, Colorado to the Tierra Environmental Company landf. San Juan County, New Mexico.	nated with approximately 800 Farmington, NM., will be the site in Antonito, Conejos arm located on Crouch Mesa MAY11 1993 OIL CON. DIV. DIST. 3 the end of the heult: Specialist DATE 5/10/93 TELEPHONE NO. 325-0924
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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 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



BRUCE KING COVERNOR

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ON SITE TECHNOLOGIES LIMITED

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,

EARMINGTON NEW MENCO 67 -

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Robert R. Griffee General Manager, On Site Technologies LTD

FAX: (505) 327-1496 • 24 HR = (505) 327-7105 • OFF.: (505) 325-8786



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

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.

show that the material is not The analyses provided a characteristic hazardous waste, and it is not a listed hazardous Therefore, based upon the information provided, the waste. 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,

ON Steven H. Gunderson, Director Emergency Management Unit

SHG:jj

Post-It" brand fax transmittal n	nemo 76 71	# of pages ► /
Richard Chance	From	Jundonnon
Dept.	CO U	Deax of Health
Fex #/	Phone #30	3-692-3022
L (SOS)327-1471	3 03	-782-4969



Roy Romer Covernor

Patricia A. Nolan, MD, MPH Executive Director



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CORE LABORATORIES

FINAL REPORT DISTRIBUTION 05/05/93						
JOB NUMBER: 930934	· · · · · · · · · · · · · · · · · · ·			,		
COMPANY NAME	COMPANY MAILING ADDREES	COMPANY CITY	STATE	COMPANY ZIP CODE		
ONSITE FECHNOLOGIES LIMITED DAVE COX	657 W. MAPLE	FARMINGTON	NM	87401		

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LABORATORY TESTS RESULTS 05/05/93

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

CLIENT 1.D...... OATE SAMPLED...... 04/15/93 TIME SAMPLED...... 15:00 WORK DESCRIPTION...: 0068 5PT COMPOSITE

	LABORATORY I.D:	930934-0001
•	DATE RECEIVED:	04/16/93
	TIME RECEIVED:	11:30
	REMARKS	SAMPLED BY: T.W.

TEST DESCRIPTION	FINAL RESULT	LINITS/*DILUTION	UNLTS OF MEASURE	TEST METHOD	DATE	TECI
TCLP Semivolatiles		*1		EPA SW-846 8270	05/03/93	GE
1,4-Dichlorobenzene	<10	10	ug/I	EPA SU-846 8270		
2.4-Dinitrotoluene	<10	10	lug/i	EPA 54-846 8270		
Hexachlorobenzene	<10	10	ug/1	EDA SU-846 8270		
Hexachlorobutadiana	<10	10		EPA SU-866 8270		
Hexachloroethane	<10	10		EDA SU-8/6 8270		
Nitrobenzene	= 10	10		EDA SU-846 8270		
Pentachlorophenol		50	ug/L	CDA SU-846 8270		
2.4.5-Trichlorophenol	<10	10		EDA CU-8/6 8270	1	
2 6 6-Trichlorophenol		10	ug/t	EFA 5W-040 0270		
Pyridine	<10			EPA 50-840 02/0		
Creente (Totel)	<10	10	ug/L	EPA 50-846 0270	}	
	<30	50	ug/L	EPA SW-846 8270		
TCLP Volatiles		* 10		EPA SW-846 8260	04/21/93	8 J)
Benzene	<50	50	ug/l	EPA SW-846 8260		
Carbon Tetrachloride	<50	50	ug/L	EPA 5W-846 8260	1	
Chlorobenzene	<50	50	ug/L	FPA SW-846 8260		
Chloroform	<50	50		FPA SW-846 8260		
2-Butanone	<100	100		EDA SU-846 8260		
Trichloroethene	~50	-50	ug/c	EPA SU-846 8260		
Vinvl chloride	50	50		EDA CU-8/4 8260	1	
1 2-Dichioroethana	50	50		EPA 38 040 0200		
Tetrachloroethana	< <u>50</u>	50		EPA 58-040 0200	ł	
1 1-D (chi onochono	<50	50	ug/L	EPA 50-840 8200		
r, i-vicintoroethene	SU	50	ug/L	EPA SW-846 8260		
Extraction - TCLP Semivolatiles	Completed			EPA SW-846 351D	04/28/93	DE
Glass Jar Extraction for Metals	Completed			EPA SV-846 1311	04/22/93	\$E
Glass Jar Extraction-Semivolatiles	Completed			EPA SW-846 1311	04/22/93	SE
Arsenic (As), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JEI
Barium (Ba), extrectable TCLP	0.58	0.05	mg/L	EPA SW-846 6010	04/27/93	JEI
Cadmium (Cd), extractable TCLP	<0.05	0.05	mg/L	EPA SW-846 6010	04/27/93	JE
Chromium (Cr), extractable TCLP	<0.05	0.05	mg/L	EFA SW-846 6010	04/27/93	JEł
Lead (Pb), extractable TCLP	<0.05	0.05	աց/Լ	EPA SW-846 6010	04/27/93	JEN
Colonia (Colorate: Solite Tota		0.05			0/ /27/07	151
sevenium (Se), extractable (CLP	<0.05	0.05	mg/L	EPA 50-846 6010	04/2//73	966
]		
			1777 1	HALL DADDE LOLAND DD1/	5	

1733 NURTH PADRE ISLAND DRIVE CORPUS CHRISTI, IX 78408

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CORE LABORATORIES

TESTS RESULTS LABORATORY 05/05/93 JOB NUMBER: 930934 CUSTOMER: ONSITE TECHNOLOGIES LINITED ATTN: DAVE COX LABORATORY 1.D...: 930934-0001 CLIENT I.D..... DATE SAMPLED 04/15/93 DATE RECEIVED: 04/16/93 TIME SAMPLED.....: 15:00 TIME RECEIVED....: 11:30 WORK DESCRIPTION ...: 0068 5PT COMPOSITE REMARKS..... SAMPLED BY: T.W. TEST DESCRIPTION FINAL RESULT LIMITS /*DILUTION UNITS OF MEASURE DATE TECHN TEST METHOD Silver (Ag), extractable TCLP EPA 5W-846 6010 04/27/93 JEM 0.05 <0.05 mg/L Flammability Potential Screening ASTM 04982-89 04/16/93 + or • RAD Negative Cyanide, Reactive (CN) EPA SW-846 7.3.3.2 04/17/93 nig/kg CH <5 5 Corrosivity by pH 0.10 pH units EPA SW-846 9040 04/22/93 EBS 6.87 04/27/93 Sulfide, Reactive 10 mg/kg EPA SW-846 7.3.4.2 CH <10 0.002 EPA SW-846 7470 04/27/93 JJP Morcury (Hg), extractable, TCLP mg/L <0.002 04/23/93 CH Metals Digest on Extracted Sample EPA SW-846 3010 Completed Zero Hesdspace Extraction-Volatile 04/19/93 SE 6 EPA SW-846 1311 Completed 1733 NORTH PADRE ISLAND DRIVE CORPUS CHRISTI, TX 78408 (512) 289-2673 PAGE:3