3R - 258

REPORTS

DATE:

Aug. 21, 1996

DRAFT

August 21, 1996

Project 15749

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Bloomfield Crude Station, Tank Removal Operations Report

Dear Mr. Olson:

On March 4, 1996, Philip Environmental Services Corporation (Philip) was contracted by Freemyer Company Inc. (Freemyer) to demolish a 50,000 barrel crude storage tank and to clean the area where the tank was located at Giant Industries Arizona, Inc.'s (Giant) Bloomfield Crude Station. On December 19, 1995, a subcontractor to Freemyer was in the process of cleaning the tank when a fire occurred. The tank burned, causing the lead paint on the tank to flake off and accumulate on the ground surrounding the tank. Material from the internal tank bottom flowed out of the tank during the fire and onto the surrounding ground surface. In addition to the tank demolition, Philip was contracted by Freemyer to remove a stockpile of soil from the site that had been impacted by cutting oil, similar to diesel fuel, used to thin the tank bottoms during cleaning operations.

All of Philip's onsite activities were conducted in accordance with a site-specific health and safety plan (HASP), prepared by Philip's Certified Industrial Hygienist in compliance with the Occupational Health and Safety Administration's (OSHA's) regulations, 1910.120, for work at hazardous waste facilities. For lead cleanup related activities, Philip's HASP required level C personnel protective equipment (PPE), along with personnel and site perimeter monitoring for lead. For tank waste cleanup and demolition activities, level D PPE and breathing zone monitoring for volatile compounds was required.

During a March 18, 1996, conversation with Mr. Bill Olson, a representative of the New Mexico Oil Conservation Division (NMOCD), Philip explained that the lead-based paint was being vacuumed up and placed in drums, and arrangements were being made for disposal of the drums at USPCI's Grassy Mountain Facility (Grassy Mountain) located in Lone Mountain, Utah; the tank bottom waste would be shipped to Controlled Recovery Inc., located in Hobbs, New Mexico. The NMOCD's representative indicated that he had agreed with Philip's approach, and with Philip's activities performed at the site to date. The NMOCD requested that following removal of the tank the area inside of the berms

DRAFT

would be broken into four quadrants and a composite sample collected from four locations within a grid on each quadrant. During the conversation it was agreed that the samples would be analyzed for lead by toxicity characteristic leaching procedure (TCLP). The NMOCD further agreed that the tank bottoms would be transported to Controlled Recovery Inc. (CRI) in Hobbs, New Mexico, and that the tank bottoms would not need to be profiled as waste, as they would be recycled. Regarding the hydrocarbon-impacted soils, the NMOCD agreed that the soil would be stockpiled onsite until a decision was made for the best disposal alternative. The NMOCD's representative indicated that the soil must be profiled for ignitability, corrosivity, reactivity, TCLP, metals, volatiles, semi-volatiles, herbicides and pesticides, and that all waste profiling for disposal at NMOCD permitted facilities must be approved by the NMOCD in advance. The NMOCD requested a report on the activities at the site, following field operations.

On March 7, 8, 11, 12, 13, 19, and 20, 1996, Philip crews vacuumed up the lead-based paint chips. The paint waste was staged on-site in 55 gallon Department of Transportation (DOT) H drums. Each drum was labeled according to DOT regulations for shipping lead waste. A total of 24 drums of lead waste was generated for disposal. On May 22, 1996, a provisional Environmental Protection Agency (EPA) waste generator number was obtained from the New Mexico Environment Department (NMED) for Freemyer, for transportation and disposal tracking purposes. A waste stream profile was set up for disposal at Grassy Mountain. The 24 drums were manifested by Philip and transported by Rinchem of Albuquerque, New Mexico, to Grassy Mountain, on June 4, 1996.

On March 20, 21, and 22, 1996, the tank bottom waste that flowed from the tank following the fire was picked up and placed in two roll-off boxes located at the site. The material that would not fit into the roll-off boxes was stockpiled at the location on 6 mil plastic and covered.

Tank demolition activities started on April 18, 1996, and were completed on April 24, 1996. Tank bottom waste cleanup proceeded concurrent with demolition operations. The tank was cut up using a Hitachi 400 trackhoe equipped with a set of shears. Initially, the scrap iron from the tank was sold to Acme Iron and Metal located in Albuquerque, New Mexico. Due to the low prices for scrap iron, and the high cost for trucking, Philip sold the remaining scrap iron to Valley Scrap Metal, located in Shiprock, New Mexico.

Following tank demolition and removal, Philip obtained a Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons, and Disposal Permit (Form C-117A, permit number 3-581) to ship the hydrocarbon waste to CRI. On April 19, 21, 23, 25, 30; May 2, 13, 20; and June 21, 1996, Philip shipped the tank bottom waste, accordingly. The stockpiled material was loaded into additional roll-off boxes and delivered to the site when trucking started. Malco Trucking Inc., from Odessa, Texas, contracted by Freemyer, transported the materials to CRI. The waste was transported

using non-hazardous bills of lading, indicating the material was flammable solids. All of the roll-off boxes were plaquered accordingly. Each roll-off box contained approximately 15 cubic yards of waste material. Sixteen roll-off boxes were shipped to CRI. All arrangements for recycling at CRI were completed by Freemyer. When the concentration of soil in the waste prohibited recycling, the remaining materials were left stockpiled on-site until an alternative disposal option was approved. On May 18, 1996, Envirotech Inc., of Farmington, New Mexico, collected samples of the waste material for profiling and subsequent disposal at Envirotech's NMOCD-permitted landfarm. Waste profiling included all TCLP analytes, ignitability, corrosivity, and reactivity. The results of the TCLP analysis indicated the waste was non-hazardous and disposal at Envirotech's landfarm was approved by the NMOCD.

On July 22, 23, and 24, 1996, the remaining material at the site was loaded into tandem-axle dump trucks, bills-of-lading completed, and the material transported to Envirotech's landfarm. Excavation was necessary in the southwest corner of the site, within the bermed area, to remove site soils impacted by hydrocarbons. On-site field screening was used to determine the extent of impact. The soils were excavated to approximately 4 feet beneath ground surface (bgs) and transported to Envirotech's landfarm. When the excavation reached approximately 4 feet bgs, representatives of Giant, Freemyer and Philip agreed that impacted soil remaining in the ground was not the result of the fire, and would not be addressed by Freemyer.

On August 5, 1996, Philip sent a letter to the NMOCD describing how the site would be sampled for closure of the lead paint cleanup task. The NMOCD approved the methods described in the letter on August 6, 1996.

On August 7, 1996, the bermed area of the former tank was divided into four main quadrants. Each main quadrant was assigned a unique identification designation associated with it (A, B, C, and D). Each main quadrant was further subdivided into four sub-quadrants. One surface soil sample was collected from the center of each sub-quadrant and from the center of the main quadrant, for a total of five sample points within each main quadrant. Following collection from each sample point, the soil from each sub-quadrant was composited and containerized. A total of four five-point composite soil samples were submitted to Philip Analytical Services for TCLP lead analysis.

Samples were collected using stainless steel sampling equipment. The sampling equipment was decontaminated with an Alconox® soap, potable water wash, followed by a distilled water rinse, prior to sampling collection.

Each sample container was labeled with the appropriate analysis, date and time of collection, unique sample number, sample location, and sample collector. All sample identification numbers and requested analysis were documented on a Chain-of-Custody form. All samples were placed on ice, and shipped via overnight delivery to the laboratory following strict Chain-of-Custody procedures.

Lead was detected during the TCLP analysis of the samples. The laboratory reports for the TCLP lead analysis and a site map showing the sampling points and quadrants are included as Attachment A of this letter report.

Based on the work described above, Giant hereby requests closure of the remedial activities completed at this site, as a result of the December 19, 1995, fire.

Please contact _____ if you require additional information.

Sincerely,

Attachments -
As stated

J:\15749\REPORT

PHILIP ENVIRONMENTAL

SITE SKETCH

Serial No. SS-

Title Grid for Lead Sampling

Project Name Giant Bloomfield Refinery

Project No. 15749

Project Manager R. Thompson

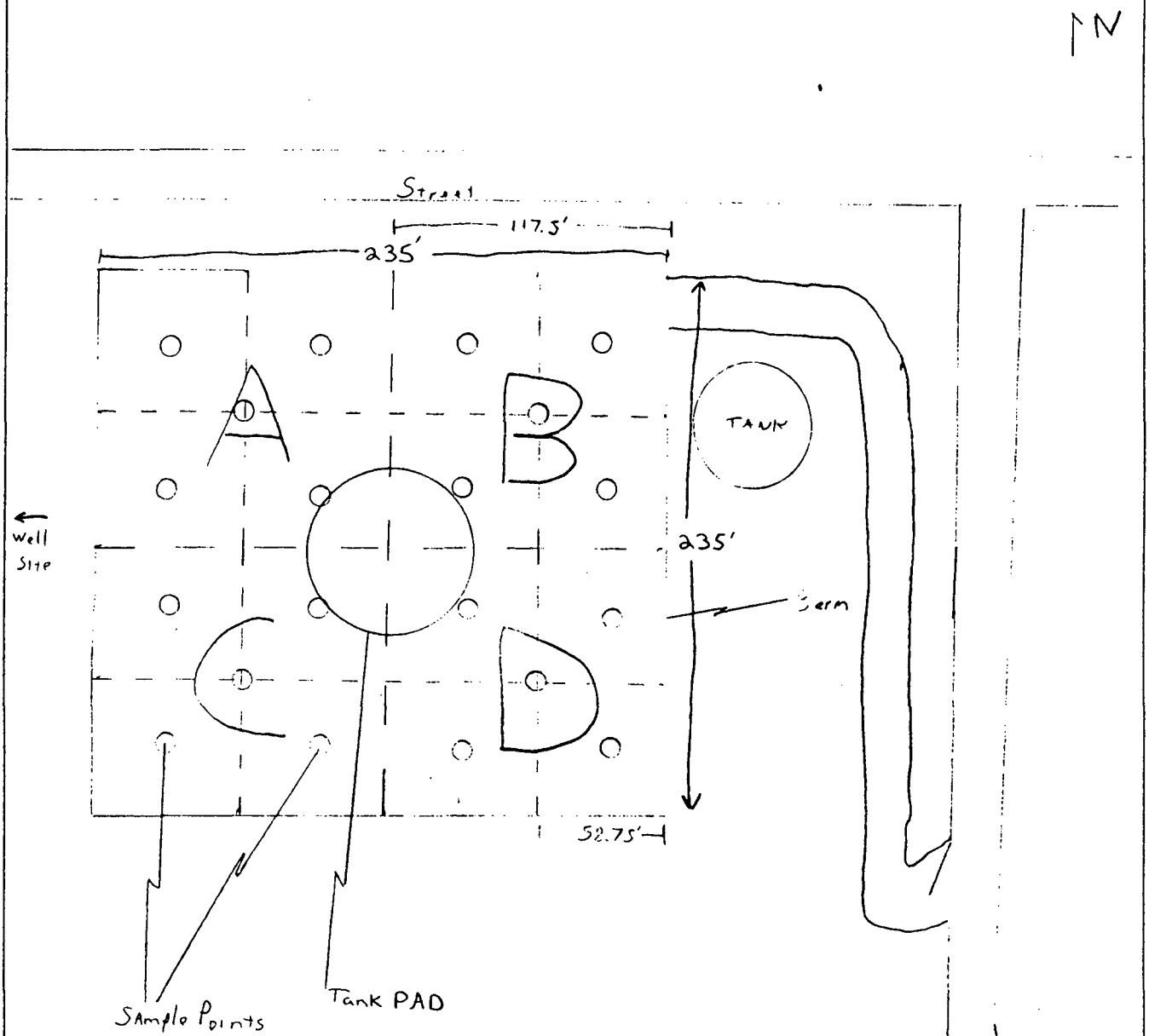
Phase.Task No. 5000.77

Client Company Freemyer

Site Name Giant Bloomfield

Site Address Bloomfidd, NM

(Include north arrow and scale or dimensions. If available, preprint CAD drawing of site on this form.)



*Measurements taken From inside of berms

Not to Scale

Sketched by (signature) Cory Chance

Date 8/7/96

PHILIP ENVIRONMENTAL

SITE SKETCH

Serial No. SS- Title Background Sample

Project Name Giant Bloomfield Project No. 15749

Project Manager R. Thompson Phase.Task No. 5000.77

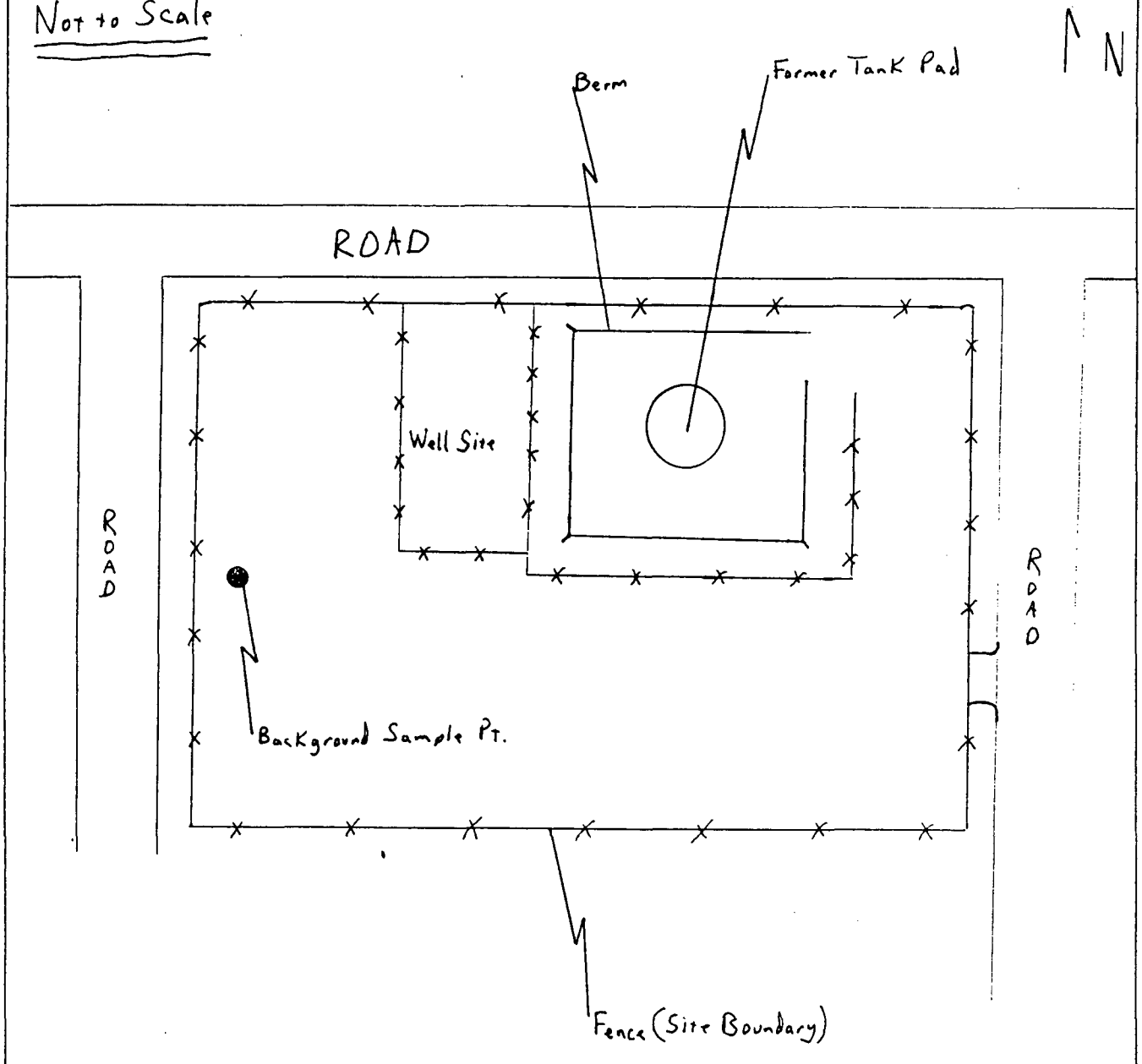
Client Company Freemyer

Site Name Giant Bloomfield

Site Address Bloomfield, NM

(Include north arrow and scale or dimensions. If available, preprint CAD drawing of site on this form.)

Not to Scale



Sample I.D. – G96-BG82196

Sketched by (signature) Cory Chavez Date 8/21/96

PHILIP ENVIRONMENTAL

SOIL/SEDIMENT/SLUDGE SAMPLING DATA

Serial No. SSSSD

Date 8/7/96

Project Name Giant Bloomfield Refinery

Project No. 15749

Project Manager R. Thompson

Phase.Task No. 5000 .77

Client Company Foreager

Site Name Giant Bloomfield

Site Address Bloomfield, NM

Sampling Method
- ☐ Hand Auger
- ☑ Spoon
- ☐ Backhoe
- ☐ Drill Rig
- ☐ Other

QA
- ☐ Primary
- ☐ Duplicate

Reason For Collection
- ☑ Lab Analysis
- ☐ On-Site Headspace
- ☐ Physical Testing
- ☐ Other

Type of Sample
- ☐ Grab
- ☑ Composite

Portable Screening Instrument Used ☐ None

Type	Manufacturer	Model
☐ PID (Lamp ____ eV)		
☐ FID		
☐ CGI		
☐ Other		
☐ Other		

Sample No.	Location	Time Collected	Sample Type: Soil	Sample Type: Sed.	Sample Type: Slg.	Volume Collected	Field Instrument Reading
G96-A8796	Grid A	1115	✓			2-5oz	NA
G96-B8796	Grid B	1130	✓			↓	↓
G96-C8796	Grid C	1140	✓			↓	↓
G96-D2796	Grid D	1150	✓			↓	↓

Chain-of-Custody Form Number 3141

Comments See site sketch for grid identification

Signature Cory Chavez Date 8/7/96 Reviewer _____ Date _____

PHILIP ENVIRONMENTAL

SOIL/SEDIMENT/SLUDGE SAMPLING DATA

Serial No. SSSSD

Date 8/21/96

Project Name Giant Bloomfield

Project No. 15749

Project Manager R. Thompson

Phase.Task No. 5000.77

Client Company Freemyer

Site Name Giant Bloomfield

Site Address Bloomfield, NM

Sampling Method
- ☐ Hand Auger
- ☑ Spoon
- ☐ Backhoe
- ☐ Drill Rig
- ☐ Other

QA
- ☐ Primary
- ☐ Duplicate

Reason For Collection
- ☐ Lab Analysis
- ☐ On-Site Headspace
- ☐ Physical Testing
- ☐ Other

Type of Sample
- ☐ Grab
- ☑ Composite

Portable Screening Instrument Used ☑ None

	Type	Manufacturer	Model
☐	PID (Lamp ____ eV)		
☐	FID		
☐	CGI		
☐	Other		
☐	Other		

Sample No.	Location	Time Collected	Sample Type			Volume Collected	Field Instrument Reading
			Soil	Sed.	Slg.		
G96-BG82196	See Site Sketch	1400	✓			2-50ml	NA

Sent 8/21/96

Chain-of-Custody Form Number C3146

Comments Surface Sample collected on West side of Site. Sample submitted For TCLP Lead

Signature [signature] Date 8/21/96 Reviewer _____ Date _____

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CERTIFICATE OF WASTE STATUS
OILFIELD NON-EXEMPT WASTE MATERIAL

Originating Location: Giant Industries' Bloomfield Station

Source: Petroleum hydrocarbon contaminated soil mixed with tank bottoms

Disposal Location: Envirotech Soil Remediation Facility, (NMED)
Hilltop, New Mexico

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt oilfield production waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for Giant Industries Arizona, Inc. concur with the status of the waste from the subject site.

Name Tim Kinney
Title/Agency General Manager
Pipeline, Maintenance, & Administration
Address 5764 U.S. Hwy 64
Farmington, NM 87401

Signature

Date July 12, 1996

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CERTIFICATE OF WASTE STATUS
OILFIELD NON-EXEMPT WASTE MATERIAL

Originating Location: Giant Industries' Bloomfield Station

Source: Petroleum hydrocarbon contaminated sand and soil mixed with tank bottoms and screened to remove paraffins and hydrocarbon solids

Disposal Location: Envirotech Soil Remediation Facility, (NMED) Hilltop, New Mexico

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt oilfield production waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for Giant Industries Arizona, Inc. concur with the status of the waste from the subject site.

Name Tim Kinney
Title/Agency General Manager
Pipeline, Maintenance, and Administration
Address 5764 U.S. Hwy 64
Farmington, NM 87401

Signature Tim Kinney

Date July 12, 1996

MAXIM TECHNOLOGIES INC

1703 West Industrial P.O. Box 2130 • Midland, Texas 79701 • 915/683-3349 FAX 915/686-0492

Client Jeff Thummel
Freemyer Company, Inc.
P.O. Box 7279
Odessa, TX 79760

Client No. 6291175
Report No. M6-01-080
Report Date 01/29/96 09:44

Project Paint Chips

Phone: 915-335-9212 Fax: 915-335-8822

Date Sampled _____

Sampled By Client

Sample Type Paint Chips

Tranaported by Jeff Thummel

P.O. # _____

Date Received 01/22/96

Lab No.	Sample Identification
M6-01-080-01	Paint Chips

Reviewed By

MAXIM

ALLAN B. JOHNSTON

MAXIM

Order # M6-01-080
02/09/96 15:54
Client: Freemyer Company, Inc.

TEST RESULTS BY SAMPLE

Sample: 01A Paint Chips Collected: Category: S

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
LEAD	SW-846, 7420	11600	mg/kg	10	01/25/96	MLC
SOIL/SLUDGE DIGESTION	SW-846, 3050	01/23/96	DATE		01/23/96	WCR

ok per 8/6/96 0800hr
Bill Olson
Report due 9/6/96

PHILIP ENVIRONMENTAL

Environmental Services Group
Southern Region

August 5, 1996

Project 15749

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Lead Sampling at the Former Giant Bloomfield ~~Refinery,~~ Crude Station Bloomfield, New Mexico

Dear Mr. Olson:

Philip Environmental Services Corporation (Philip) hereby submits the following sampling plan, for collection of soil samples for Toxicity Characteristic Leaching Procedure (TCLP) lead analysis, from the above mentioned location.

SCOPE OF WORK

Philip proposes to perform the following sampling plan:

The bermed area of the former tank shall be divided into four main quadrants. Each main quadrant shall have a unique identification designation associated with it (e.g. A, B, C, and D). Each main quadrant shall be further subdivided into four sub-quadrants. One surface soil sample shall be collected from the center of each sub-quadrant and from the center of the main quadrant, for a total of five sample points within each main quadrant. Following collection from each sample point, the soil from each sub-quadrant shall be composited and containerized. A total of four five-point composite soil samples shall be submitted to the laboratory for TCLP lead analysis.

Samples shall be collected using stainless steel sampling equipment. The sampling equipment shall be decontaminated with an Alconox® soap, potable water wash, followed by a distilled water rinse prior to sampling collection.

Each sample container shall be labeled with the appropriate analysis, date and time of collection, unique sample number, sample location, and sample collector. All sample identification numbers and requested analysis will be documented on a Chain-of-Custody Form. All samples will be placed on ice, and shipped via overnight delivery to the laboratory following strict Chain-of-Custody procedures.

PHILIP ENVIRONMENTAL SERVICES CORPORATION
4000 Monroe Road • Farmington, NM 87401
(505) 326-2262 • Fax (505) 326-2388

Philip appreciates this opportunity of providing this proposal to New Mexico Oil Conservation Division, and looks forward to working on this project. If you require additional information, please contact Martin Nee, of Philip's Farmington, New Mexico office at (505) 326-2262.

Sincerely,

PHILIP ENVIRONMENTAL SERVICES CORPORATION

Martin J. Nee
Project Manager

CMC:cc

J:\15749\ocdlet

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

August 1, 1996

Mr. Jeff Thummel
Freemyer Co., Inc.
P.O. Box 7271
Odessa, TX 79760

RE: Giant Bloomfield Crude Station - NMP 360 079 380

Dear Mr. Thummel,

In response to your call concerning Giant Bloomfield Crude Station, work commenced on decommissioning of a crude oil storage tank which resulted in a fire and a one time cleanup of lead paint contaminated debris. The New Mexico Environment Department/Hazardous and Radioactive Materials Bureau is notifying you after careful review, according to the Annual Hazardous Waste Fee Regulations 20 NMAC 4.1.201(B)(2) and 402(C) Giant Bloomfield Crude Station is exempt from paying any Annual Hazardous Waste Fees for 1996. However, the site will still be required to submit the 1997 Hazardous Waste Report (Biennial Report).

In accordance with the Resource Conservation Recovery Act (RCRA), there are no further requirements.

If you have any questions about management of your hazardous waste, or if you need further assistance, you may reach me at (505) 827-1558.

Sincerely,

Anna Walker
Management Analyst
Administration and Special Projects
NMED/HRMB

cc: Mr. Coby Muckelroy, NMED/HRMB
Mrs. Norma Silva, NMED/HRMB
Mr. Edward L. Horst, Giant Refining Co., Ciniza Refinery
Mr. Kim Bullerdick, Corporate Legal
Mr. David Pavlich, HSE, Manager, Giant Refining Company
Mr. Martin Nee, Philip Environmental

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 15, 1996

Mr. Martin Nee
Philip Environmental Services, Inc.
4000 Monroe Road
Farmington, New Mexico 87401

Project No.: 96036-05

Dear Mr. Nee,

Enclosed are the analytical results for the samples collected from the Ciniza Crude Terminal location. Two composite soil samples were collected, one from the location designated as "Tank Bottoms Cleanup, Under Tank", and one from the location designated as "Cutting Oil Contaminated Soil" on June 18, 1996. The samples were received by the Envirotech laboratory on June 18, 1996 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Metals, Herbicides, Pesticides, Reactivity, Corrosivity, and Ignitability).

The samples were documented on Envirotech Chain of Custody No. 4809 and assigned Laboratory Nos. A249 (Composite #1, Tank Bottoms) and A250 (Composite #2, Cutting Oil Contaminated Soil) for tracking purposes.

Results of the analysis indicate that the material from the designated locations are not characteristic hazardous wastes as defined by 40 CFR, Section 261, Subpart C for the noted compounds.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler
Laboratory Manager

enc.

SWS\sws

96036-05.lb1

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS & SOLID WASTE ANALYSIS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #1	Date Reported:	06-21-96
Lab ID#:	A249	Date Sampled:	06-18-96
Sample Matrix:	Soil	Date Received:	06-18-96
Preservative:	Cool	Date Analyzed:	06-19-96
Condition:	Cool & Intact	Chain of Custody:	4809

Parameter	Result
IGNITABILITY:	**Did not ignite upon direct contact with flame.**
CORROSIVITY:	**pH of 7.09**
REACTIVITY:	**Did not react violently with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrochloric acid).**

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Sample Ignition upon direct contact with flame indicates hazardous waste status.
CORROSIVITY:	pH less than or equal to 2.0 or pH greater than or equal to 12.5 indicates hazardous waste status.
REACTIVITY:	Violent reaction with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrocholoric Acid) indicates hazardous waste status.
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Ciniza Crude Terminal Tank Bottoms Cleanup, Under Tank.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS & SOLID WASTE ANALYSIS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #2	Date Reported:	06-21-96
Lab ID#:	A250	Date Sampled:	06-18-96
Sample Matrix:	Soil	Date Received:	06-18-96
Preservative:	Cool	Date Analyzed:	06-19-96
Condition:	Cool & Intact	Chain of Custody:	4809

Parameter	Result
IGNITABILITY:	**Did not ignite upon direct contact with flame.**
CORROSIVITY:	**pH of 6.51**
REACTIVITY:	**Did not react violently with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrochloric acid).**

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Sample Ignition upon direct contact with flame indicates hazardous waste status.
CORROSIVITY:	pH less than or equal to 2.0 or pH greater than or equal to 12.5 indicates hazardous waste status.
REACTIVITY:	Violent reaction with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrocholoric Acid) indicates hazardous waste status.
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Ciniza Crude Terminal Cutting Oil Contaminated Soil,**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #1	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-20-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**0.0084**	**0.0004**	**0.2**
1,1-Dichloroethene	**ND**	**0.0002**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0003**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0061**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Tank Bottoms Cleanup, Under Tank.

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #2	Date Reported:	06-21-96
Laboratory Number:	A250	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-20-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0004**	**0.2**
1,1-Dichloroethene	**ND**	**0.0002**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0003**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Cutting Oil Contaminated Soil.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	06-21-96
Laboratory Number:	06-21-TCV.BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-21-96
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0004	0.2
1,1-Dichloroethene	ND	0.0002	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0003	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	97%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	06-21-96
Laboratory Number:	06-20-TCV.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-21-96
Condition:	N/A	Date Extracted:	06-20-96
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0004	0.2
1,1-Dichloroethene	ND	0.0002	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0003	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	06-21-96
Condition:	N/A	Date Extracted:	06-20-96

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	0.0084	0.0084	0.0004	0.0%
1,1-Dichloroethene	ND	ND	0.0002	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0003	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0061	0.0063	0.0001	2.4%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples A249 - A250.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	06-21-96
Condition:	N/A	Date Extracted:	06-20-96

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	0.0084	0.020	0.0270	0.0004	95%	28-163
1,1-Dichloroethene	ND	0.020	0.0219	0.0002	98%	43-143
2-Butanone (MEK)	ND	0.020	0.0186	0.0001	93%	47-132
Chloroform	ND	0.020	0.0212	0.0003	99%	49-133
Carbon Tetrachloride	ND	0.020	0.0197	0.0001	99%	43-143
Benzene	0.0061	0.020	0.0250	0.0001	96%	39-150
1,2-Dichloroethane	ND	0.020	0.0194	0.0001	97%	51-147
Trichloroethene	ND	0.020	0.0189	0.0003	94%	35-146
Tetrachloroethene	ND	0.020	0.0189	0.0005	92%	26-162
Chlorobenzene	ND	0.020	0.0214	0.0003	97%	38-150
1,4-Dichlorobenzene	ND	0.020	0.0205	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples A249 - A250.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #1	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-19-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**100%**
	2,4,6-Tribromophenol	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 198

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Tank Bottoms Cleanup, Under Tank.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #2	Date Reported:	06-21-96
Laboratory Number:	A250	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-19-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**0.052**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**0.183**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**96%**
	2,4,6-Tribromophenol	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 198

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Cutting Oil Contaminated Soil.

Analyst

Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	06-21-96
Laboratory Number:	06-21-TCA.BLANK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-21-96
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	99 %
	2,4,6-tribromophenol	100 %

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 198

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	06-21-96
Laboratory Number:	06-19-TCA.MB	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	06-19-96
Condition:	Cool & Intact	Date Analyzed:	06-21-96
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 198

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	06-19-96
Condition:	Cool & Intact	Date Analyzed:	06-21-96
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #1	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-19-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Tank Bottoms Cleanup, Under Tank.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #2	Date Reported:	06-21-96
Laboratory Number:	A250	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Extracted:	06-19-96
Preservative:	Cool	Date Analyzed:	06-21-96
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones. SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Cutting Oil Contaminated Soil.

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	06-21-96
Laboratory Number:	06-21-TBN.BLANK	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	06-21-96
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	06-21-96
Laboratory Number:	06-19-TBN.MB	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Extracted:	06-19-96
Condition:	Cool and Intact	Date Analyzed:	06-21-96
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Extracted:	06-19-96
Condition:	N/A	Date Analyzed:	06-21-96
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **QA/QC for samples A249 - A250.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #1	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Analyzed:	06-21-96
Preservative:	Cool	Date Extracted:	06-19-96
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**ND**	**0.001**	**5.00**
Barium	**1.81**	**0.01**	**100**
Cadmium	**0.011**	**0.001**	**1.00**
Chromium	**ND**	**0.001**	**5.00**
Lead	**1.58**	**0.001**	**5.00**
Mercury	**ND**	**0.001**	**0.200**
Selenium	**ND**	**0.001**	**1.00**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Tank Bottoms Cleanup, Under Tank.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Philip Environmental Services	Project #:	96036-05
Sample ID:	Composite #2	Date Reported:	06-21-96
Laboratory Number:	A250	Date Sampled:	06-18-96
Chain of Custody:	4809	Date Received:	06-18-96
Sample Matrix:	Soil	Date Analyzed:	06-21-96
Preservative:	Cool	Date Extracted:	06-19-96
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.005**	**0.001**	**5.00**
Barium	**2.09**	**0.01**	**100**
Cadmium	**0.003**	**0.001**	**1.00**
Chromium	**ND**	**0.001**	**5.00**
Lead	**0.075**	**0.001**	**5.00**
Mercury	**ND**	**0.001**	**0.200**
Selenium	**0.002**	**0.001**	**1.00**
Silver	**ND**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Ciniza Crude Terminal.**
Cutting Oil Contaminated Soil.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	06-21-96
Laboratory Number:	N/A	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	06-21-96
Condition:	N/A	Date Extracted:	N/A

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	**ND**	**ND**	**0.001**
Barium	**ND**	**ND**	**0.01**
Cadmium	**ND**	**ND**	**0.001**
Chromium	**ND**	**ND**	**0.001**
Lead	**ND**	**ND**	**0.001**
Mercury	**ND**	**ND**	**0.001**
Selenium	**ND**	**ND**	**0.001**
Silver	**ND**	**ND**	**0.001**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA.

Comments: **QA/QC for samples A249 - A251.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Spike	Date Reported:	06-21-96
Laboratory Number:	A249	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	06-21-96
Condition:	N/A	Date Extracted:	N/A

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	**0.100**	**ND**	**0.101**	**101%**
Barium	**1.00**	**1.81**	**2.81**	**100%**
Cadmium	**0.050**	**0.011**	**0.061**	**100%**
Chromium	**0.050**	**ND**	**0.049**	**98%**
Lead	**0.100**	**1.58**	**1.68**	**100%**
Mercury	**0.025**	**ND**	**0.025**	**100%**
Selenium	**0.100**	**ND**	**0.099**	**99%**
Silver	**0.050**	**ND**	**0.051**	**102%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	TCLP Metals	**80 - 120 %**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA.

Comments: **QA/QC for samples A249 - A251.**

Analyst

Review

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American Environmental Network, Inc.

AEN I.D. **606336**

July 11, 1996

Envirotech, Inc.
5796 U.S. Highway 64-3014
Farmington, NM 87401

Project Name/Number: PHILIP ENVIRONMENTAL (NONE)

Attention: Dennis Ajeman

On **06/21/96**, American Environmental Network (NM), Inc., (ADHS License No. AZ0015) received a request to analyze **non-aqueous and aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

All analyses were performed by American Environmental Network (FL) Inc., 11 east East Olive Road, Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
General Manager

MR:ft

Enclosure

American Environmental Network, Inc.

CLIENT	: ENVIROTECH, INC.	DATE RECEIVED	: 06/21/96
PROJECT #	: (NONE)		
PROJECT NAME	: PHILIP ENVIRONMENTAL	REPORT DATE	: 07/11/96

AEN ID: 606336

	AEN ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	606336-01	COMPOSITE #1	NON-AQ	06/18/96
02	606336-02	COMPOSITE #2	NON-AQ	06/18/96
03	606336-03	0619-MB	AQUEOUS	06/19/96

---TOTALS---

MATRIX	#SAMPLES
NON-AQ	2
AQUEOUS	1

AEN STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	606416
Client:	AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number:	606336
Project Name:	ENVIROTECH
Project Location:	N/S
Test:	TCLP HERBICIDES
Analysis Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Matrix:	LIQUID
QC Level:	II

Lab Id:	001			Sample Date/Time:	18-JUN-96 1140
Client Sample Id:	606336-01			Received Date:	22-JUN-96
Batch: HEW023				Extraction Date:	25-JUN-96
Blank: A	Dry Weight %:	N/A		Analysis Date:	29-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
2,4-DICHLOROPHENOXYACETIC ACID	UG/L	ND	10	
2,4,5-TP (SILVEX)	UG/L	ND	2.0	
DCAA	%REC/SURR	96	65-112	
ANALYST	INITIALS	KL		

Comments:

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	606416
Client:	AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number:	606336
Project Name:	ENVIROTECH
Project Location:	N/S
Test:	TCLP HERBICIDES
Analysis Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Matrix:	LIQUID
QC Level:	II

Lab Id:	003		Sample Date/Time:	19-JUN-96 N/S
Client Sample Id:	606336-02		Received Date:	25-JUN-96
Batch: HEW023			Extraction Date:	25-JUN-96
Blank: A	Dry Weight %:	N/A	Analysis Date:	29-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
2,4-DICHLOROPHENOXYACETIC ACID	UG/L	ND	10	
2,4,5-TP (SILVEX)	UG/L	ND	2.0	
DCAA	%REC/SURR	94	65-112	
ANALYST	INITIALS	KL		

Comments:

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	606416
Client:	AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number:	606336
Project Name:	ENVIROTECH
Project Location:	N/S
Test:	TCLP HERBICIDES
Analysis Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method:	8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Matrix:	LIQUID
QC Level:	II

Lab Id:	002		Sample Date/Time:	19-JUN-96 N/S
Client Sample Id:	EXTRACTION BLANK-03		Received Date:	22-JUN-96
Batch: HEW023			Extraction Date:	25-JUN-96
Blank: A	Dry Weight %:	N/A	Analysis Date:	29-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
2,4-DICHLOROPHENOXYACETIC ACID	UG/L	ND	10	
2,4,5-TP (SILVEX)	UG/L	ND	2.0	
DCAA	%REC/SURR	95	65-112	
ANALYST	INITIALS	KL		

Comments:

American Environmental Network, Inc.

"QC Report"

Title: Water Blank
Batch: HEW023
Analysis Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.

Blank Id: A Date Analyzed: 28-JUN-96 Date Extracted: 25-JUN-96

Parameters:	Units:	Results:	Reporting Limits:
DALAPON	UG/L	ND	60
DICAMBA	UG/L	ND	3.0
DICHLOROPROP	UG/L	ND	7.0
DINOSEB	UG/L	ND	1.0
MCPA	UG/L	ND	2500
MCPP	UG/L	ND	2000
2,4,5-T	UG/L	ND	2.0
2,4,5 TRICHLOROPHENOXY (SILVEX)	UG/L	ND	2.0
2,4-D ACID HERBICIDE	UG/L	ND	10
2,4-DB	UG/L	ND	10
DCAA	%REC/SURR	78	65-112
ANALYST	INITIALS	KL	

Comments:

American Environmental Network, Inc.

"QC Report"

Title: Water Reagent
Batch: HEW023
Analysis Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.

RS Date Analyzed: 28-JUN-96 RS Date Extracted: 25-JUN-96
RSD Date Analyzed: 28-JUN-96 RSD Date Extracted: 25-JUN-96

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
2,4-DICHLOROPHENOXY-ACETIC	1.3	<10	0.7	54*	1.1	85	45*	21	66-128
2,4,5-TP;SILVEX	1.0	<2.0	0.9	90	1.0	100	11	15	65-122
Surrogates:									
DCAA				70		86			65-112

Comments:
* REAGENT SPIKE/REAGENT SPIKE DUPLICATE HAD RECOVERY(S) AND/OR RPD(S) OUTSIDE ACCEPTANCE LIMITS DUE TO EXTRACTION TECHNICIAN ERROR. SEE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS.

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

American Environmental Network, Inc.

"QC Report"

Title: Water Matrix
Batch: HEW023
Analysis Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.
Extraction Method: 8150 / SW-846, 3rd Edition, Rev. 2 Sept. 1994.

Dry Weight %: N/A
Sample Spiked: 606360-1

MS Date Analyzed: 28-JUN-96
MSD Date Analyzed: 28-JUN-96

MS Date Extracted: 25-JUN-96
MSD Date Extracted: 25-JUN-96

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
2,4-DICHLOROPHENOXY-ACETIC	2.6	<10	1.4	54	1.6	62	14	62	49-137
2,4,5-TP;SILVEX	2.0	<2.0	1.5	75	1.5	75	0	32	54-121
Surrogates:									
DCAA				70		77			65-112

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

American Environmental Network, Inc.

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED.
ND = NOT DETECTED ABOVE REPORTING LIMIT.
RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.
RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

RP = ROBERT PEREZ
KL = KERRY LEMONT
RW = ROBERT WOLFE
PL = PAUL LESCHENSKY

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession: 606416
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 606336
Project Name: ENVIROTECH
Project Location: N/S
Test: TCLP PESTICIDES
Analysis Method: 8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method: 3510 / SW-846, 3rd Edition, Rev. 2 July 1994.
Matrix: LIQUID
QC Level: II

Lab Id: 001 — Sample Date/Time: 18-JUN-96 1140
Client Sample Id: 606336-01 — Received Date: 22-JUN-96

Batch: PSW045 — Extraction Date: 25-JUN-96
Blank: A — Dry Weight %: N/A — Analysis Date: 28-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
CHLORDANE	UG/L	ND	0.5	
ENDRIN	UG/L	ND	0.10	
HEPTACHLOR	UG/L	ND	0.05	
HEPTACHLOR EPOXIDE	UG/L	ND	0.05	
LINDANE	UG/L	ND	0.05	
METHOXYCHLOR	UG/L	ND	0.5	
TOXAPHENE	UG/L	ND	3.0	
DCB	%REC/SURR	93	17-135	
TCMX	%REC/SURR	83	43-101	
ANALYST	INITIALS	RP		

Comments:

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	606416
Client:	AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number:	606336
Project Name:	ENVIROTECH
Project Location:	N/S
Test:	TCLP PESTICIDES
Analysis Method:	8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method:	3510 / SW-846, 3rd Edition, Rev. 2 July 1994.
Matrix:	LIQUID
QC Level:	II

Lab Id:	003			Sample Date/Time:	19-JUN-96 N/S
Client Sample Id:	606336-02			Received Date:	25-JUN-96
Batch: PSW045				Extraction Date:	25-JUN-96
Blank: A	Dry Weight %:	N/A		Analysis Date:	28-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
CHLORDANE	UG/L	ND	0.5	
ENDRIN	UG/L	ND	0.10	
HEPTACHLOR	UG/L	ND	0.05	
HEPTACHLOR EPOXIDE	UG/L	ND	0.05	
LINDANE	UG/L	ND	0.05	
METHOXYCHLOR	UG/L	ND	0.5	
TOXAPHENE	UG/L	ND	3.0	
DCB	%REC/SURR	88	17-135	
TCMX	%REC/SURR	72	43-101	
ANALYST	INITIALS	RP		

Comments:

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	606416
Client:	AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number:	606336
Project Name:	ENVIROTECH
Project Location:	N/S
Test:	TCLP PESTICIDES
Analysis Method:	8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method:	3510 / SW-846, 3rd Edition, Rev. 2 July 1994.
Matrix:	LIQUID
QC Level:	II

Lab Id:	002	Sample Date/Time:	19-JUN-96 N/S
Client Sample Id:	EXTRACTION BLANK-03	Received Date:	22-JUN-96
Batch: PSW045		Extraction Date:	25-JUN-96
Blank: A	Dry Weight %: N/A	Analysis Date:	28-JUN-96

Parameter:	Units:	Results:	Rpt Lmts:	Q:
CHLORDANE	UG/L	ND	0.5	
ENDRIN	UG/L	ND	0.10	
HEPTACHLOR	UG/L	ND	0.05	
HEPTACHLOR EPOXIDE	UG/L	ND	0.05	
LINDANE	UG/L	ND	0.05	
METHOXYCHLOR	UG/L	ND	0.5	
TOXAPHENE	UG/L	ND	3.0	
DCB	%REC/SURR	98	17-135	
TCMX	%REC/SURR	79	43-101	
ANALYST	INITIALS	RP		

Comments:

American Environmental Network, Inc.

"QC Report"

Title: Water Blank
Batch: PSW045
Analysis Method: 8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method: 3510 / SW-846, 3rd Edition, Rev. 2 July 1994.

Blank Id: A Date Analyzed: 28-JUN-96 Date Extracted: 25-JUN-96

Parameters:	Units:	Results:	Reporting Limits:
ALDRIN	UG/L	ND	0.05
ALPHA-BHC	UG/L	ND	0.05
BETA-BHC	UG/L	ND	0.05
DELTA-BHC	UG/L	ND	0.05
GAMMA-BHC (LINDANE)	UG/L	ND	0.05
CHLORDANE	UG/L	ND	0.5
4,4'-DDD	UG/L	ND	0.10
4,4'-DDE	UG/L	ND	0.10
4,4'-DDT	UG/L	ND	0.10
DIELDRIN	UG/L	ND	0.10
ENDOSULFAN I	UG/L	ND	0.05
ENDOSULFAN II	UG/L	ND	0.10
ENDOSULFAN SULFATE	UG/L	ND	0.10
ENDRIN	UG/L	ND	0.10
ENDRIN ALDEHYDE	UG/L	ND	0.10
HEPTACHLOR	UG/L	ND	0.05
HEPTACHLOR EPOXIDE	UG/L	ND	0.05
PCB-1016	UG/L	ND	1.0
PCB-1221	UG/L	ND	1.0
PCB-1232	UG/L	ND	1.0
PCB-1242	UG/L	ND	1.0
PCB-1248	UG/L	ND	1.0
PCB-1254	UG/L	ND	1.0
PCB-1260	UG/L	ND	1.0
TOXAPHENE	UG/L	ND	3.0
METHOXYCHLOR	UG/L	ND	0.5
DCB	%REC/SURR	100	17-135
TCMX	%REC/SURR	89	43-101
ANALYST	INITIALS	RP	

Comments:

American Environmental Network, Inc.

"QC Report"

Title: Water Reagent
Batch: PSW045
Analysis Method: 8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method: 3510 / SW-846, 3rd Edition, Rev. 2 July 1994.

RS Date Analyzed: 28-JUN-96
RSD Date Analyzed: 28-JUN-96

RS Date Extracted: 25-JUN-96
RSD Date Extracted: 25-JUN-96

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
LINDANE	1.00	<0.05	0.90	90	0.85	85	6	23	51-118
HEPTACHLOR	1.00	<0.05	0.92	92	0.85	85	8	18	70-123
ALDRIN	1.00	<0.05	0.62	62	0.57	57	8	26	54-122
DIELDRIN	1.00	<0.10	0.97	97	0.91	91	6	19	75-119
ENDRIN	1.00	<0.10	1.03	103	0.95	95	8	21	67-122
DDT	1.00	<0.10	0.96	96	0.91	91	5	14	59-127
Surrogates:									
DCB				100		95			17-135
TCMX				87		84			43-101

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

American Environmental Network, Inc.

"QC Report"

Title: Water Matrix
Batch: PSW045
Analysis Method: 8080 / SW-846, 3rd Edition, Rev. 1 July 1994.
Extraction Method: 3510 / SW-846, 3rd Edition, Rev. 2 July 1994.

Dry Weight %: N/A
Sample Spiked: 606360-1

MS Date Analyzed: 28-JUN-96
MSD Date Analyzed: 28-JUN-96

MS Date Extracted: 25-JUN-96
MSD Date Extracted: 25-JUN-96

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
LINDANE	2.00	<0.05	1.44	72	1.57	79	9	27	40-119
HEPTACHLOR	2.00	<0.05	1.47	74	1.59	80	8	30	53-123
ALDRIN	2.00	<0.05	0.96	48	1.06	53	10	31	42-130
DIELDRIN	2.00	<0.10	1.52	76	1.67	84	10	18	61-124
ENDRIN	2.00	<0.10	1.72	86	1.88	94	9	30	50-125
DDT	2.00	<0.10	1.61	81	1.76	88	8	32	25-138
Surrogates:									
DCB				81		89			17-135
TCMX				71		76			43-101

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

American Environmental Network, Inc.

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED.
ND = NOT DETECTED ABOVE REPORTING LIMIT.
RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.
RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

RP = ROBERT PEREZ
KL = KERRY LEMONT
RW = ROBERT WOLFE
PL = PAUL LESCHENSKY

606336 4809

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
Philip Environmental	Cienega Creek Terminal
Sampler: (Signature)	Chain of Custody Tape No.

Lab ID	Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	RCRA Charac.	TCLP Volatiles	Temp Metals	TCLP Herbicides	TCLP Pesticides	TCLP Semi. Vols	Remarks
01	Composite #1	6-18-96	11:40	A 249	Soil	2			/	/	/		Tank Bottoms Cleanup under Tank
02	Composite #2	6 18 96	11:54	A250	Soil	2			/	/	/		Cutting oil contaminated soil.
03	0619-MB	6-19-96		Method Blank	AQ	2							method blank for extraction
			Extracted	6-19-96	100gm sample					2.0L			Need approval from
			Ext. Fluid	#1, 20 hour	rotation								Martin Nee @ Phillips
						D. A							OK-MB 6-19-96 7:00AM
									Received 21°C				

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	6-18-96	13:21		6-18-96	1321
Relinquished by: (Signature)	6-20-96	10:00	Received by: (Signature)	6/21/96	1:45PM
Relinquished by: (Signature)			Received by: (Signature)		

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

san juan repro Form 578-81

Analytical**Technologies** of New Mexico, Inc.
Albuquerque, New Mexico

Interlab Chain of Custody

606416

DATE: 6/21/96 PAGE: 1 OF 1

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL

COMPANY: **Analytical Technologies of New Mexico, Inc.**
ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

* TCLP EXTRACT SAMPLES *

CLIENT PROJECT MANAGER: Kim McNeill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
606336 - 01	6-18-96	11:40	Extract	
- 02	↓	11:54	↓	
Extraction Blank - 03	6-19-96		↓	

Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)	TCLP Pesticides & Herbicides	TOX	TOC	Gen Chemistry		Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 (TCLP 1311)			TO-14	Gross Alpha/Beta				NUMBER OF CONTAINERS
				X X																						2
				X																						1
				X																						1

PROJECT INFORMATION

PROJECT NUMBER: 606336
PROJECT NAME: Envirotech
QC LEVEL: (STD) IV
QC REQUIRED: MS MSD BLANK
TAT: (STANDARD) RUSH!

DUE DATE: 7/8
RUSH SURCHARGE: 0
CLIENT DISCOUNT: 10
SPECIAL CERTIFICATION REQUIRED: ☐ YES ☒ NO

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLES SENT TO:

SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	X
PORTLAND	
PHOENIX	

RELINQUISHED BY: 1.
Signature: John Epley Time: 2:00pm
Printed Name: JOHN EPLEY Date: 6/21/96
Analytical Technologies of New Mexico, Inc. Albuquerque

RECEIVED BY: 1.
Signature: Linda Kitt Time: 0939
Printed Name: Linda Kitt Date: 6/21/96
Company: AFN/71

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.
Signature: Time:
Printed Name: Date:
Company:

4809

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
PHILIP ENVIRONMENTAL SERVICES, INC.	CIENEGA ONDA TERMINAL	
Sampler: (Signature)	Chain of Custody Tape No.	
	#96036-05	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	RCRA CHARAC.	TCLP VOLATILES	TCLP METALS	TCLP Herbicides	TCLP Pesticides	TCLP Semi VOLS	Remarks
Composite #1	6-18-96	11:40	A249	Soil	2	✓	✓	✓	✓	✓	✓	Tank Bottoms Cleanup under Tank
Composite #2	6-18-96	11:54	A250	Soil	2	✓	✓	✓	✓	✓	✓	Cutting oil contaminated soil.
												Need approval from
												Martin Nee @ Phillips.
												OK BNB 6-19-96. 7:00 AM.

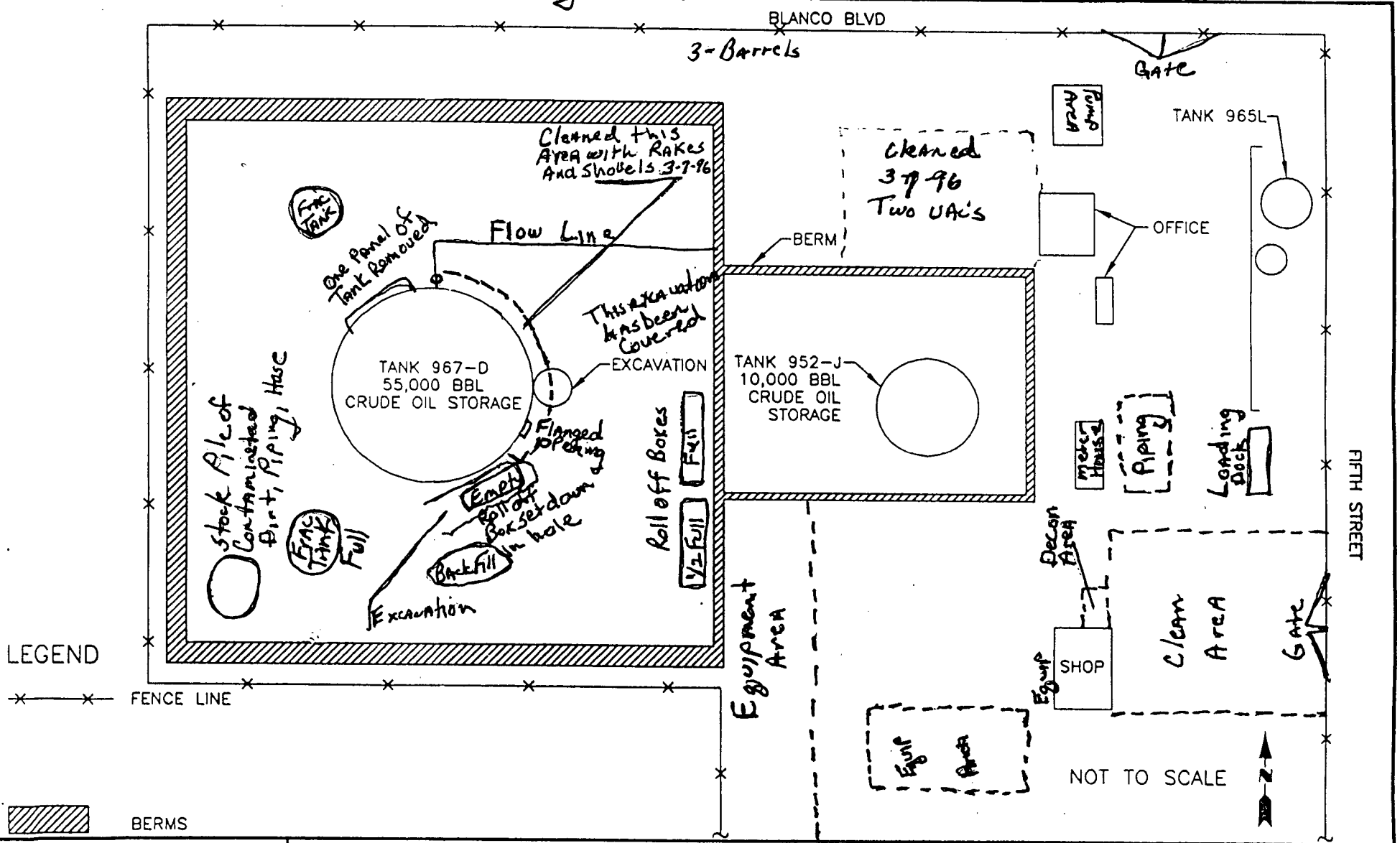
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	6-18-96	13:21		6-18-96	1321
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

Results to: MARTIN Nee
Philip Env. ~~Inc~~ Services, Inc.
4000 Monroe Rd
Farmington, NM 87401

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

San Juan Repro Form 578-81

1st Day 3-7-96



PHILIP ENVIRONMENTAL

TITLE:
Giant Industries Arizona, Inc.
Bloomfield, New Mexico

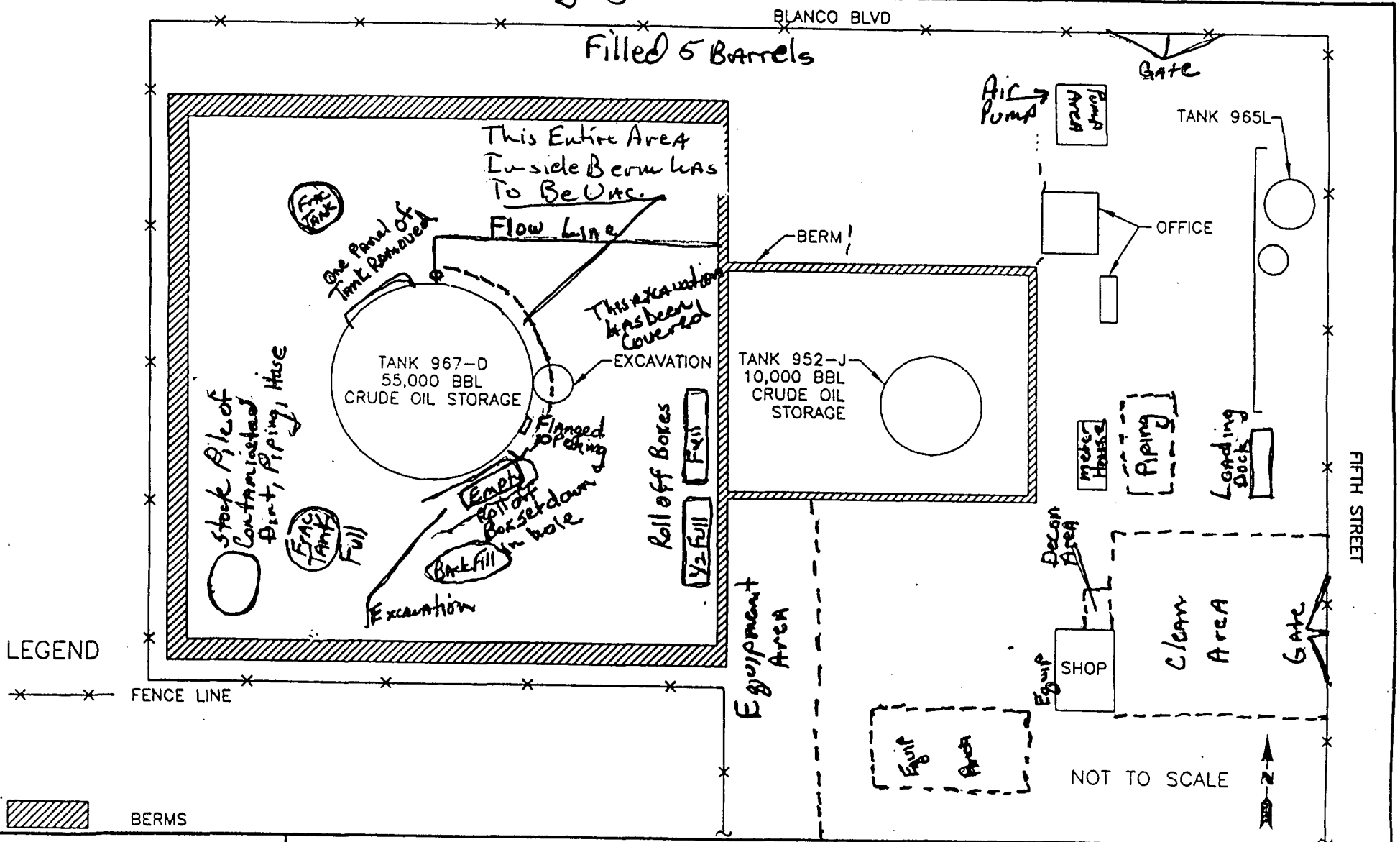
SCALE	NONE	DATE
DWN:	TMM	
DES:		
CHKD:		
APPD:		

PROJECT NO:
GIANT INDUSTRIES
BLOOMFIELD, NM

FIGURE

REV:

Day 2 - 3-8-96

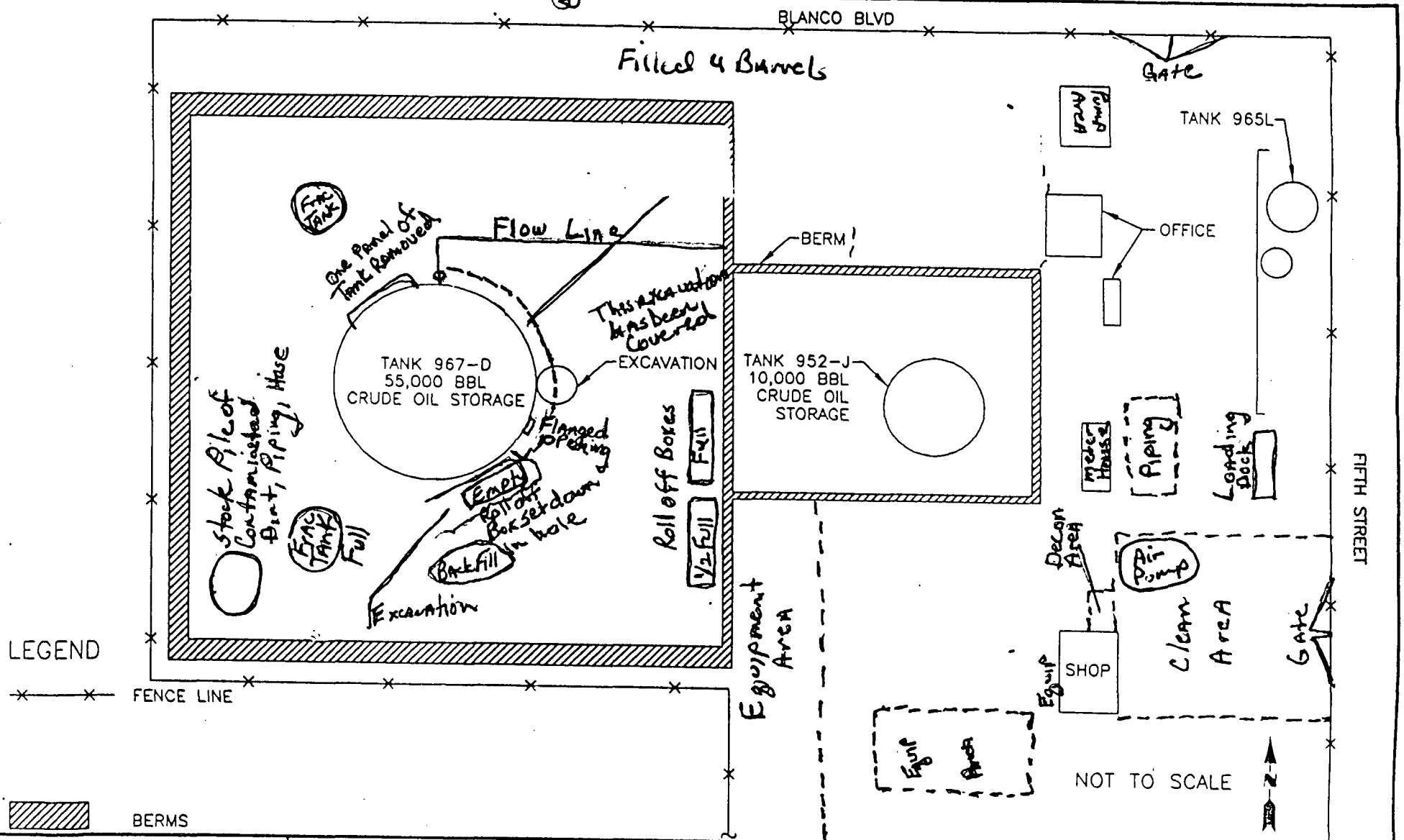


PHILIP ENVIRONMENTAL

TITLE:
Giant Industries Arizona, Inc.
Bloomfield, New Mexico

SCALE	NONE	DATE	PROJECT NO: GIANT INDUSTRIES BLOOMFIELD, NM
DWN:	TMM		
DES:			
CHKD:			FIGURE
APPD:			REV:

DAY 3 3-11-96

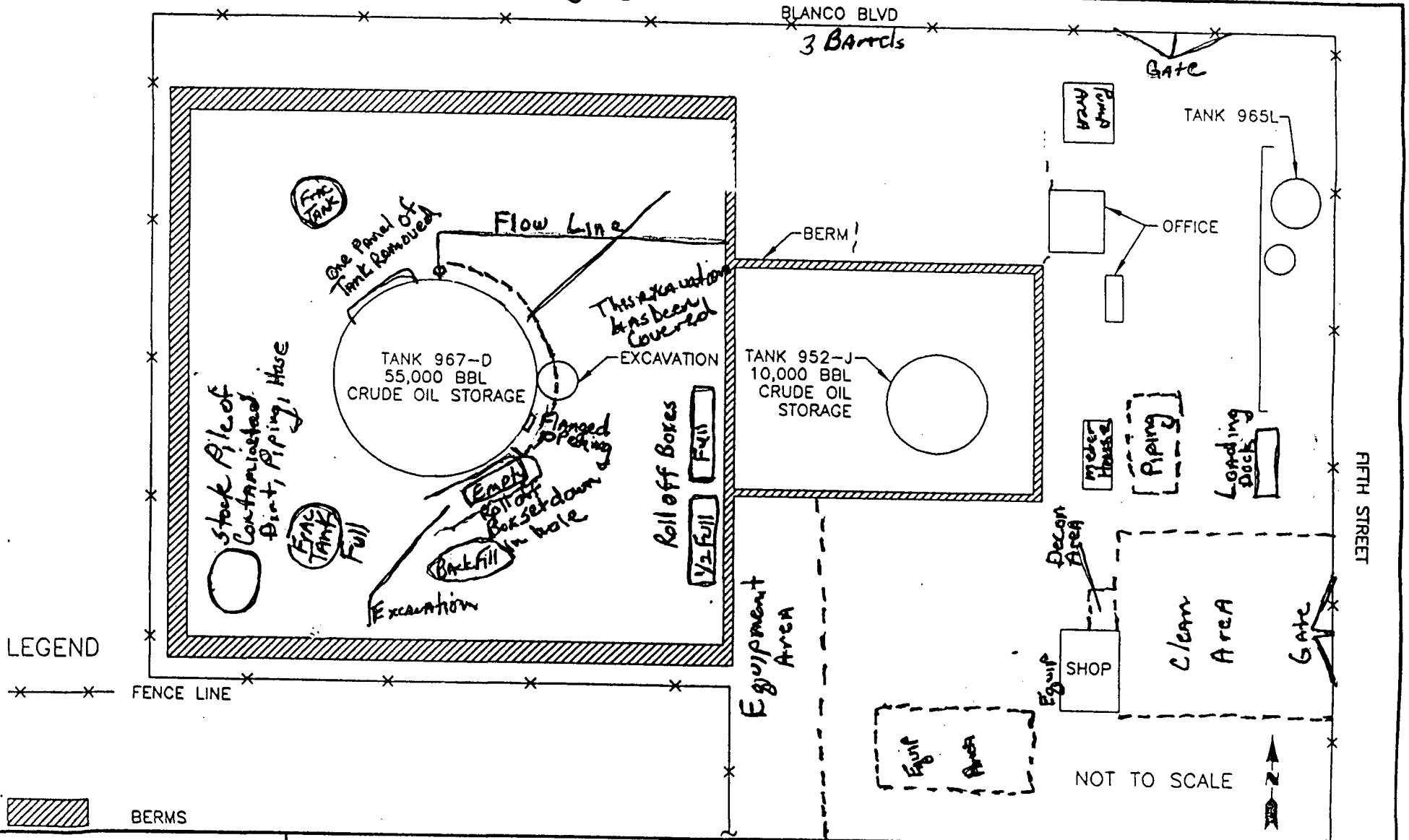


PHILIP ENVIRONMENTAL

TITLE:
Giant Industries Arizona, Inc.
Bloomfield, New Mexico

SCALE	NONE	DATE	PROJECT NO: GIANT INDUSTRIES BLOOMFIELD, NM
DWN:	TMM		
DES:			
CHKD:			FIGURE
APPD:			REV:

Day 4 3-12-96

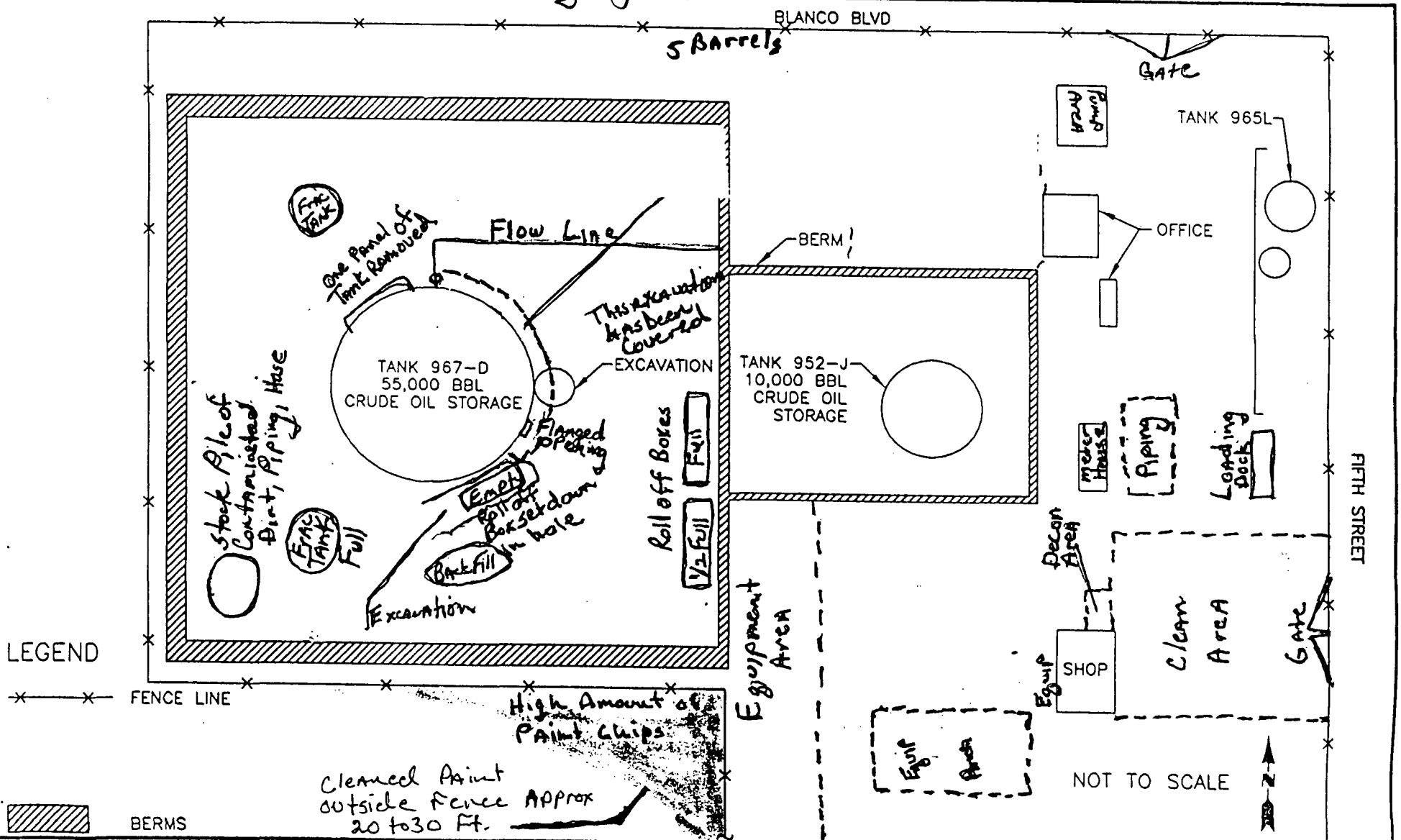


PHILIP ENVIRONMENTAL

TITLE:
Giant Industries Arizona, Inc.
Bloomfield, New Mexico

SCALE	NONE	DATE	PROJECT NO: GIANT INDUSTRIES BLOOMFIELD, NM
DWN:	TMM		
DES:			FIGURE
CHKD:			REV:
APPD:			

Day 5 - 3-13-96



PHILIP ENVIRONMENTAL

TITLE:
Giant Industries Arizona, Inc.
Bloomfield, New Mexico

SCALE: NONE	DATE	PROJECT NO: GIANT INDUSTRIES BLOOMFIELD, NM	
DWN: TMM			
DES:			
CHKD:		FIGURE	REV:
APPD:			

PHILIP Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401
(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 3141

Project Name

Project Number 574 Phase . Task

Samplers

Laboratory Name

Location

Sample Number (and depth)	Date	Time	Matrix	Total Number of Bottles	Type of Analysis and Bottle	Comments

Relinquished by:

Signature	Date	Time

Received By:

Signature	Date	Time

Samples Iced: Yes No

Preservatives (ONLY for Water Samples)

- ☐ Cyanide ..... Sodium hyroxide (NaOH)
- ☐ Volatile Organic Analysis ..... Hydrochloric acid (HCl)
- ☐ Metals ..... Nitric acid (HNO_3)
- ☐ TPH (418.1) ..... Sulfuric acid (H_2SO_4)
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Carrier: Airbill No.

Shipping and Lab Notes:

PHILIP

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 3146

Project Name: Grant Bloomfield
Project Number: 15749 Phase . Task: 5000 . 77
Samplers: CAI Chance
Laboratory: Name: Zenon
Location: Burlington Ontario

Sample Number (and depth)	Date	Time	Matrix	Total Number of Bottles	Type of Analysis and Bottle: TCLP Lead	Comments
G96-BG83196	8/31/96	1400	SOIL	2	X	

Cory Chance 8/31/96

Relinquished by:

Signature	Date	Time
Cory Chance	8/31/96	1500

Received By:

Signature	Date	Time

Samples Iced: ☑ Yes ☐ No

Preservatives (ONLY for Water Samples)

- ☐ Cyanide ..... Sodium hyroxide (NaOH)
- ☐ Volatile Organic Analysis ..... Hydrochloric acid (HCl)
- ☐ Metals ..... Nitric acid (HNO_3)
- ☐ TPH (418.1) ..... Sulfuric acid (H_2SO_4)
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Carrier: Fed Ex Airbill No. 748387 2955

Shipping and Lab Notes: Standard Turnaround
Fax results to Cory Chance @ # above

PE-176 4-95

ZENON LABORATORIES

5555 North Service Road
Burlington, Ontario, Canada L7L 5H7
Tel: (905) 332-8788
Fax: (905) 332-9169

Certificate of Analysis

CLIENT INFORMATION

Attention:	Cory Chance
Client Name:	Philip Environmental Inc.
Project:	15749
Project Desc:	Giant Bloomfield Refinery
Address:	4000 Monroe Road Farmington, NM 87401
Fax Number:	505 326-2388
Phone Number:	505 326-2262

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN960841
Date Received:	96/08/22
Date Reported:	96/08/28
Submission No.:	6H0573
Sample No.:	032712-032714

NOTES: *'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Seventeenth Edition. Other methods are based on the principles of MISA or EPA methodologies.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at Zenon for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by A Blythe

			Method	Blank	Blank	G96-BG8219b	G96-BG8219b	G96-BG8219b	G96-BG8219b
Client ID:			Blank	Spike	Spike	TCLP	TCLP	TCLP	TCLP
Zenon ID:			032712 96	032712 96	032712 96	032714 96	032714 96	032714 96	032714 96
Date Sampled:			96/08/21	96/08/21	96/08/21	96/08/27	96/08/27	96/08/27	96/08/27
Component	**MDL**	**Units**			% Recovery		Duplicate	M. Spike	MS % Rec.
Lead	0.020	mg/L	<0.022	1.1	100	<0.022	<0.022	1.1	98

8/28/96

ZEL Summary of Analysis Pre. Dates

Batch Code:	**0827MGA1**
Lead	032712 96
	032714 96
Date analysed	96/08/28
Date prepared	96/08/27

****
*** ACTIVITY REPORT ***
****

TRANSMISSION OK

TX/RX NO.	4741
CONNECTION TEL	19153358622
CONNECTION ID	FREEMYER CO.INC
START TIME	08/29 14:23
USAGE TIME	03'09
PAGES	3
RESULT	OK

ZENON LABORATORIES

5555 North Service Road
Burlington, Ontario, Canada L7L 5H7
Tel: (905) 332-8788
Fax: (905) 332-9169

Certificate of Analysis

CLIENT INFORMATION

Attention:	Cory Chance
Client Name:	Philip Environmental Inc.
Project:	15749
Project Desc:	Giant Bloomfield Refinery
Address:	4000 Monroe Road Farmington, NM 87401
Fax Number:	505 326-2388
Phone Number:	505 326-2262

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN960841
Date Received:	96/08/22
Date Reported:	96/08/28
Submission No.:	GH0573
Sample No.:	032713

NOTES: *'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Seventeenth Edition. Other methods are based on the principles of MISA or EPA methodologies.

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COMMENTS:

Certified by: A Blythe

			G96
	Client ID:		BG8219b
	Zenon ID:		032713 96
	Date Sampled:		96/08/21
Component	**MDL**	**Units**	
pH after 3.5 ml of 1N HCl addition			1.65
pH initial (5g + 96.5ml water)			8.60
pH of extraction fluid (semi-vols/metals)			4.93
pH of extraction fluid (volatiles)			NA

8/28/96

ZEL Summary of Analysis Pre. Dates

Batch Code:	**0826SPA1**
pH	032713 96
Date analysed	96/08/27
Date prepared	96/08/26

Zenon Environmental Laboratories - Certificate of Analysis

			Method Blank	Blank Spike	Method Blank	G96-A8796 TCLP	G96-A8796 TCLP	G96-A8796 TCLP	G96-A8796 TCLP	G96-B8796 TCLP	G96-C8796 TCLP	G96-D8796 TCLP
Client ID:			Method Blank	Blank Spike	Method Blank	G96-A8796 TCLP	G96-A8796 TCLP	G96-A8796 TCLP	G96-A8796 TCLP	G96-B8796 TCLP	G96-C8796 TCLP	G96-D8796 TCLP
Zenon ID:			030584 96	030584 96	030584 96	030586 96	030586 96	030586 96	030586 96	030588 96	030590 96	030592 96
Date Sampled:			96/08/09	96/08/09	96/08/09	96/08/09	96/08/09	96/08/09	96/08/09	96/08/09	96/08/09	96/08/09
Component	MDL	Units			% Recovery		Duplicate	M. Spike	MS % Rec.			
Lead	0.020	mg/L	<0.022	1.1	100	5.2	5.2	6.3	100	4.6	5.1	4.3

8/15/96

ZEL Summary of Analysis Pre. Dates

Batch Code:	**0812GBL1**
Lead	030584 96
	030586 96
	030588 96
	030590 96
	030592 96
Date analysed	96/08/13
Date prepared	96/08/12

ZENON LABORATORIES

5555 North Service Road
Burlington, Ontario, Canada L7L 5H7
Tel: (905) 332-8788
Fax: (905) 332-9169

Certificate of Analysis

CLIENT INFORMATION

Attention:	Cory Chance
Client Name:	Philip Environmental Inc.
Project:	15749
Project Desc:	Giant Bloomfield Refinery
Address:	4000 Monroe Road Farmington, NM 87401
Fax Number:	505 326-2388
Phone Number:	505 326-2262

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN960841
Date Received:	96/08/08
Date Reported:	96/08/15
Submission No.:	6H0203
Sample No.:	030585-030591

NOTES: *'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Seventeenth Edition. Other methods are based on the principles of MISA or EPA methodologies.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at Zenon for a period of three weeks from receipt of data or as per contract.

COMMENTS:

NA = Not required

Certified by:

Zenon Environmental Laboratories - Certificate of Analysis

	Client ID:		G96 A8796	G96 B8796	G96 C8796	G96 D8796
	Zenon ID:		030585 96	030587 96	030589 96	030591 96
	Date Sampled:		96/08/07	96/08/07	96/08/07	96/08/07
Component	**MDL**	**Units**				
pH after 3.5 ml of 1N HCl addition			1.55	1.50	1.50	1.50
pH initial (5g + 96.5ml water)			8.60	9.10	9.10	9.35
pH of extraction fluid (semi-vols/metals)			2.95	2.95	2.95	2.95
pH of extraction fluid (volatiles)			NA	NA	NA	NA

8/15/96

ZEL Summary of Analysis Pre. Dates

Batch Code:	**0812SPA1**
pH	030585 96
	030587 96
	030589 96
	030591 96
Date analysed	96/08/13
Date prepared	96/08/12

ZENON LABORATORIES

5555 North Service Road
Burlington, Ontario, Canada L7L 5H7
Tel: (905) 332-8788
Fax: (905) 332-9169

Certificate of Analysis

CLIENT INFORMATION

Attention:	Cory Chance
Client Name:	Philip Environmental Inc.
Project:	15749
Project Desc:	Giant Bloomfield Refinery
Address:	4000 Monroe Road Farmington, NM 87401
Fax Number:	505 326-2388
Phone Number:	505 326-2262

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN960841
Date Received:	96/08/08
Date Reported:	96/08/15
Submission No.:	6H0203
Sample No.:	030584-030592

NOTES: *'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by Zenon are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Seventeenth Edition. Other methods are based on the principles of MISA or EPA methodologies.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at Zenon for a period of three weeks from receipt of data or as per contract.

COMMENTS:

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