NM - 74

GENERAL CORRESPONDENCE

YEAR(S):

CLOSED

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

July 7, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-461

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) received Penroc Oil Corporation's (Penroc) Pit Remediation and Closure Report dated June 30, 1998 concerning the above-referenced waste disposal pits. The OCD reviewed the pit remediation and closure report for Penroc and found it to be complete. The site was inspected by the OCD on June 19, 1998 and found to be closed. **The OCD hereby approves of the closure of the above referenced waste disposal pits.**

Thank you for your timely response. If you have any questions, please feel free to call me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Enclosure

xc: Hobbs OCD Office

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: PENROC OIL CORPORATION **Telephone:** (505) 397-3596

Address: P. O. BOX 5970, HOBBS, NM 88241

Facility Or: Well Name: N.E. Maljamar Unit # 1

Location: Unit or Qtr/Qtr Sec D Sec 5 T 17S R 33E County Lea

Pit Type: Separator ___ Dehydrator ___ Other Emergency overflow pit (con.-lined)

Land Type: BLM ___, State X, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 60', width 60', depth 4'
Reference: wellhead ___, other Dry hole Marker
Footage from reference: 360' west & 75' North
Direction from reference: ___ Degrees ___ East ___ West of North ___ South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water) (209.02')	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 Points)	0
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes	(20 points)	
	No	(0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	0
	RANKING SCORE (TOTAL POINTS):		0

Date Remediation Started: 3-4-98 **Date Completed:** 3-6-98

Remediation Method: (Check all appropriate sections) Excavation ✓ Approx. cubic yards 462

Landfarmed ___ Insitu Bioremediation ___

Other ___

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite ___ Offsite # To CRI Facility located half way between Hobbs & Carlsbad

General Description Of Remedial Action: Excavated impacted soil removed offsite to CRI facility - NMOCD approved facility. Collect bottom samples for TPH, Btex & Chlorides - Site was back filled with clean top soil - purchased from CRI.

Ground Water Encountered: No X Yes ___ Depth ___

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location 5 Point Composite

Sample depth 4 feet

Sample date 3/5/98 Sample time 2^10 p.m.

Sample Results

Benzene(ppm) ___

Total BTEX(ppm) ___ } See attached previously submitted report.

Field headspace(ppm) see attached closure report (previously submitted)

TPH ___

Ground Water Sample: Yes ___ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 6/30/98

SIGNATURE [illegible] PRINTED NAME AND TITLE M. Y. Merchant, President

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

June 24, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-456

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) received Penroc Oil Corporation's (Penroc) letter and pit closure report dated April 3, 1998 concerning the above-referenced waste disposal pits. The OCD reviewed the pit closure report compiled by Constructive Solutions, Inc. (CSI) for Penroc and found it to be complete. The site was inspected by the OCD on June 19, 1998 and found to be closed. As stated in the CSI report the surface pits are closed, compacted and mounded over. However, for the OCD records to be complete a Pit Remediation and Closure Report form must be completed and signed. Please find a copy of this form enclosed

Penroc shall submit a completed Pit Remediation and Closure Report form to the OCD Santa Fe and Hobbs District offices **no later than July 8, 1998.**

Please be advised that the State Land Office may require additional surface stabilization which may include re-seeding the site with native vegetation.

If you have any questions, please feel free to call me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Enclosure

xc: Hobbs OCD Office
Mike Matush, State Land Office
Hobbs State Land Office

Kieling, Martyne

From: Kieling, Martyne
Sent: Wednesday, June 17, 1998 2:20 PM
To: Price, Wayne
Subject: Penroc
Importance: High

Wayne Price,

I am in the process of reviewing the closure report for Penroc's pit located in NW/4, Section 5, Township 17 South, Range 33 East, NMPM, LeaCounty, New Mexico. On my last trip to Hobbs I was unable to visit the site for a final inspection. I would very much apreciate it if you or someone from your office could make it out there to inspect the site for the OCD.

Thanks.

Martyne Kieling

PENROC

April 3, 1998

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

Re: Final Closure Report
NW/4, Section 5, Township 17 South, Range 33 East.,NMPM
Lea County, New Mexico

Dear Ms. Keiling:

Attached you will find a Site Remediation Report on the captioned prepared by CSI of Hobbs, New Mexico. I hope you will find it to your satisfaction and will contact me if you have any questions.

I will be out of the country from approximately April 14th through the end of the month. If you have any questions or comments during this period, I will address them on my return. I appreciate your cooperation in this matter and look forward to final closing of this matter in the very near future. Thank you.

Sincerely,

M. Y. (Merch) Merchant
President

Attachments.

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970

DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118

(505) 397-3596 Phone
(505) 393-7051 FAX

Presented to:

Penroc Oil Corporation

P.O. Box 5970
Hobbs, New Mexico 88241

Waste Disposal Pit

NW/4 Sec. 5, T17S, R33E Lea Co., New Mexico

SITE REMEDIATION REPORT

From:

Constructive Solutions, Inc.
4007 Lovington Hwy.
Hobbs, New Mexico 88240

INDEX

OVERVIEW AND CHRONOLOGICAL SUMMARY

Engineering and
Construction
Services

Constructive Solutions, Inc.

Building a Better Environment

March 20, 1998

Penroc Oil Corporation
P.O. Box 5970
Hobbs, New Mexico 88241

Attn.: Mr. M.Y. Merchant

Re: Overview and Chronological Summary of Pit Closure Operations

Dear Mr. Merchant

Constructive Solutions, Inc. (CSI) would like to take this time to thank you and Penroc Oil Corp. for the opportunity to be of service on the clean up and remediation of the old waste pit located in the NW/4 Sec. 5, T17S, R33E of Lea County, New Mexico.

Overview Summary

The pit at the above location was a single well production pit that has been out of service for a number of years. The pit had lost it's exemption due to the fact that trash had been put in the pit. The pit was sampled by the Environmental Bureau's February 4, 1998 sampling event. The TCLP and hazardous characteristic analytical results verified that the non-exempt pit at the above site location contained non-hazardous waste. Approval was given from the NMOCD to dispose of the waste at an NMOCD approved facility. (See NMOCD Approval Letters)

There was 462 cyds of impacted soils that were removed off site for disposal at the CRI Facility located half way between Hobbs & Carlsbad, NM. The CRI facility is a NMOCD approved and permitted facility that accepts waste that was generated by the Oil and Gas Industry. Once source removal was complete and the concerns of the NMOCD addressed the site was ready for final soil samples. The total depth of the excavation was 4' with the final readings from the lab of, <50 ppm of TPH, BTEX was <.050 ppm and Chlorides (CL) at 57 ppm.

On location the 3-5-98 from the NMOCD was Mr. Jack Griffin a field representative who was there to look at the clean up operations at the site. Mr. Griffin felt that the operations were going well and that he had no problems with the site operations. The site was then backfilled with clean material and crowned to prevent ponding of water.

The site as a whole has cleaned up very well with the complete removal of all the source material. This should make closure of the site with the NMOCD possible, being that the site was cleaned up to less than 100 ppm of TPH. This site should pose little, if any, further environmental threat and should require no further action.

Findings

1. Exceeding NMOCD guidelines for unlined surface impoundment closure guidelines, the site at an elevation 209' above ground water, has been vertically defined and remediated to a level of less than 100 ppm of TPH above the top of ground water, with < 50 ppm of TPH, BTEX at <0.050 ppm and CL at 57 ppm on the location, the NMOCD only requires TPH at < 5,000 ppm.

2. There was a total of 462 cyds of impacted soils taken for disposal at the CRI facility

3. The ground water is estimated to be at 209.02' below surface as per the New Mexico State Engineers office in Roswell, New Mexico.

Conclusions

1. The site as a whole has cleaned up very well with minimal impact. (See attached lab analysis)

2. The site is stable and should remain so with no further action required.

3. The site was crowned to prevent the ponding of water.

4. All of the concerns of the NMOCD have been met for unlined surface impoundments. This site should require no further action at this time.

Chronological Summary

On 3-4-98 CSI was on location to start the clean up of the old pit. One call was maid with no lines on location found. The fence around the pit was taken down and a backhoe was used to load the impacted soils into 24 cyd trucks for transportation to disposal at CRI. There was 200 cyds taken out

On 3-5-98 the loading and hauling of impacted soils was completed, with 262 cyds taken out for a total of 462 cyds of impacted soils. Mr. Jack Griffin from the NMOCD was on location to look at the clean up operations and felt that it was going well. Final samples were taken for third party analysis to be tested for TPH, BTEX and CL. Backfilling of the site was started but not complete.

On 3-6-98 backfilling of the site was completed with the site being crowned to prevent the ponding of water, final site photos were taken and all trash removed and clean up operation finished.

NOTE This report may include and/or disclose sensitive information and is intended only for the use of the client, except as limited and/or required by the consultant to disclose cretin findings to governmental agencies. All data, maps, test results, notes, reports and other information held by consultant are confidential and restricted, and are only available to the client.

If you have any question or need additional information in regards to this project, please call at any time 505-392-4498

Sincerely

Allen Hodge, REM
Hobbs Operations Manager
Constructive Solutions, Inc.

VP Operations
Western Environmental Consultants

ON SITE TPH ANALYSIS REPORTS

WESTERN ENVIRONMENTAL CONSULTANTS

P.O. Box 1816
Hobbs, New Mexico 88241

Phone (505) 392-5021
Fax (505) 397-2597

SOIL ANALYSIS REPORT

DATE : 3-4&5-98
CLIENT: Penroc Oil Corp.
SUPERVISOR: A. Hodge
Sample Matrix: Soil

FACILITY: NE Maljamar Pit
Test Method: EPA 418.1
Order No. M. Y. Merchant
SAMPLE RECEIVED: Intact on site

	TPH		DEPTH	LOCATION
SAMPLE NO. 1:	87,240	PPM	0-6"	Composite of pit material
SAMPLE NO. 2:	67	PPM	4'	Grab from pit bottom
SAMPLE NO. 3:	41	PPM	4'	Composite of pit bottom
SAMPLE NO. 4:		PPM		
SAMPLE NO. 5:		PPM		
SAMPLE NO. 6:		PPM		
SAMPLE NO. 7:		PPM		
SAMPLE NO. 8:		PPM		
SAMPLE NO. 9:		PPM		
SAMPLE NO. 10:		PPM		

COMMENTS: These samples were taken to confirm the level of the impacted soils that were being taken for disposal. Samples 2 & 3 were taken from the pit bottom to confirm that all of the concerns of the NMOCD had been addressed.

LAB ANALYSIS REPORTS

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Western Environmental Consultants
Attention Allen Hodge
P.O. Box 1816
Lovington NM

Lab Receiving # : 9803000238
Sampling Date: 3/12/98
Sample Condition: Intact and Cool
Sample Received By: VW

Date: Mar 19, 1998
Date Rec: 3/12/98
Project: PEU ROC Oil Corp.
Proj Name: Pit Bottom
Proj Loc: NW/4 SEL 5, T175, R33E

TA#	Field Code	MATRIX	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P,O XYLENE (mg/Kg)	TOTAL BTEX mg/Kg)
T 93365	Pit Bottom @ 4'	Soil	<0.050	<0.050	<0.050	<0.050	<0.050
Method Blank			<0.050	<0.050	<0.050	<0.050	
Reporting Limit			0.05	0.05	0.05	0.05	
QC			0.098	0.091	0.092	0.275	

RPD	1	2	1	1
% Extraction Accuracy	105	98	101	100
% Instrument Accuracy	98	91	92	92

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: mg/Kg)
BTEX	EPA 5030	3/16/98	EPA 8021B	3/16/98	JG	0.100 ea	5 ea

Director, Dr. Blair Leftwich

3-19-98
Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Western Environmental Consultants
Attention Allen Hodge
P.O. Box 1816
Lovington NM

Date: Mar 17, 1998
Date Rec: 3/12/98
Project: PEU ROC Oil Corp.
Proj Name: Pit Bottom
Proj Loc: NW/4 SEL 5, T175, R33E

Lab Receiving # : 9803000238
Sampling Date: 3/12/98
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	C6-C10 (mg/Kg)	>C10-C28 (mg/Kg)	C6-C28 (mg/Kg)
T93365	Pit Bottom @ 4'	Soil	<50	<50	<50
	Method Blank		<50	<50	<50
	Reporting Limit		50	50	50
	QC		288	247	535
	RPD		14	19	8
	% Extraction Accuracy		24	56	40
	% Instrument Accuracy		115	99	107

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TX1005	N/A	3/15/98	TX1005	3/15/98	MS	250 each	250 each

BL

Director, Dr. Blair Leftwich

3-17-98

Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
Attention: Allen Hodge
P. O. Box 1816
Hobbs, NM 88240

March 20, 1998
Receiving Date: 03/12/98
Sample Type: Soil
Project No: NA
Project Location: PeuRoc Oil Corp.
NW/4, Sec5, T175, R33E

Extraction Date: 03/16/98
Analysis Date: 03/16/98
Sampling Date: 03/12/98
Sample Condition: I & C
Sample Received by: VW
Project Name: Pit Bottom

TA#	FIELD CODE	CHLORIDE (mg/kg)
T93365	Pit Bottom @ 4'	57
ICV		13.37
CCV		12.03
REPORTING LIMIT		5.0
RPD		1
% Extraction Accuracy		101
% Instrument Accuracy		106

METHODS: EPA 300.0.
CHEMIST: JS
CHLORIDE SPIKE: 125 mg/kg CHLORIDE.
CHLORIDE CV: 12.5 mg/L CHLORIDE.

Director, Dr. Blair Leftwich

3-20-98
DATE

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #: 238

Company Name: WESTERN ENVIRONMENTAL CONSULTANTS
Phone #: 505 392-5021
Address: P.O. BOX 1816, Hobbs, NM 88240
Fax #: 505 392-9376
Contact Person: ALLEN HODGE
Invoice to: (If different from above)
Project #: PENROC OIL CORP.
Project Name: PIT BOTTOM
Project Location: NW/4 SEC 5, T17S, R33E
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
93365	PIT BOTTOM @ 4'	1	4oz		X					X		3-12-98	9:00 AM

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	CL - CHLORIDE	Turn Around Time if different from standard	Hold
	X	X												X		

Relinquished by: [signature] Date: 3-12-98 Time: 10:00 AM
Received by: Bobby Kincaid Date: 3-12 Time: 10AM
Relinquished by: Bobby Kincaid 3-12 Time: 120.
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
[signature] 3-12-98 1:20 PM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp °C
Log-in Review

REMARKS: THIS SAMPLE WAS A 5 POINT COMPOSITE SAMPLE TAKEN FROM THE PIT BOTTOM @ 4'

3-20

Carrier #

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

NMOCD APPROVAL LETTERS

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 19, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-399

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: Unauthorized Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) received Penroc Oil Corporation's (Penroc) letter and pit closure plan dated February 3, 1998 concerning the above-referenced waste disposal pits. The OCD has found that the pit closure plan submitted by Constructive Solutions, Inc. (CSI) for Penroc is complete. However, the OCD Santa Fe and Hobbs District offices shall be notified **two (2) working days** prior to CSI taking final confirmatory samples. As written in the pit closure plan, the final confirmatory samples will be analyzed at a third party laboratory for TPH, BTEX, and chloride prior to backfilling the pits.

In addition, the OCD has received preliminary analytical results from the Environmental Bureau's February 4, 1998 sampling event. The TCLP and hazardous characteristic analytical results verified that the non-exempt pits at the above location contained non-hazardous waste. Therefore, this waste may be removed to an OCD approved waste management facility. Please find enclosed a copy of the preliminary OCD results from American Environmental Network.

Penroc shall submit a final closure report to the OCD Santa Fe and Hobbs District offices **no later than April 24, 1998.**

If you have any questions, please feel free to call me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: Hobbs OCD Office
Jens W. Deichmann, State Land Office
Allen Hodge, CSI
Ken Marsh, CRI

American Environmental Network

FAX TRANSMITTAL SHEET

DELIVER TO: Marlene **PHONE NUMBER:**

COMPANY: NMOCD **FAX NUMBER:** 505-827-8177

NUMBER OF PAGES BEING SENT: 10 (INCLUDING THIS PAGE)

From: Date: 2/18

H. Mitchell Rubenstein, Ph.D., General Manager
Kimberly D. McNeill, Project Manager
Francine J. Torivio, Administrative Assistant
Brian Price, Sample Control
Christopher Froehlich, QA Coordinator

Time:

FAX NUMBER:
(505) 344-4413

COMMENTS:

Penroc data

I rewrote some results beside the number since sometimes the numbers do not fax very well.

If you did not receive all pages of this transmission or if you experience Fax Transmission problems. Please call **(505) 344-3777**, as soon as possible after the receipt.

Preliminary Results
Final report will be issued following data review

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260
CLIENT : NMOCD
PROJECT # : (none)
PROJECT NAME : PENROC

AEN I.D. : 802321
DATE RECEIVED : 2/5/98

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT			UNITS
Dichlorodifluoromethane	0.05	< 5.0		MG/KG
Chloromethane	0.05	< 5.0		MG/KG
Vinyl Chloride	0.05	< 5.0		MG/KG
Bromomethane	0.05	< 5.0		MG/KG
Chloroethane	0.05	< 5.0		MG/KG
Trichlorofluoromethane	0.05	< 5.0		MG/KG
Acetone	0.5	< 50		MG/KG
Acrolein	0.25	< 25		MG/KG
1,1-Dichloroethene	0.05	< 5.0		MG/KG
Iodomethane	0.05	< 5.0		MG/KG
Methylene Chloride	0.05	< 5.0		MG/KG
Acrylonitrile	0.25	< 25		MG/KG
cis-1,2-Dichloroethene	0.05	< 5.0		MG/KG
Methyl-t-butyl Ether	0.05	< 5.0		MG/KG
1,1,2,1,2,2-Trichlorotrifluoroethane	0.05	< 5.0		MG/KG
1,1-Dichloroethane	0.05	< 5.0		MG/KG
trans-1,2-Dichloroethene	0.05	< 5.0		MG/KG
2-Butanone	0.5	< 50		MG/KG
Carbon Disulfide	0.05	< 5.0		MG/KG
Bromochloromethane	0.05	< 5.0		MG/KG
Chloroform	0.05	< 5.0		MG/KG
2,2-Dichloropropane	0.05	< 5.0		MG/KG
1,2-Dichloroethane	0.05	< 5.0		MG/KG
Vinyl Acetate	0.05	< 5.0		MG/KG
1,1,1-Trichloroethane	0.05	< 5.0		MG/KG
1,1-Dichloropropene	0.05	< 5.0		MG/KG
Carbon Tetrachloride	0.05	< 5.0		MG/KG
Benzene	0.05	**47**	✓	**MG/KG**
1,2-Dichloropropane	0.05	< 5.0		MG/KG
Trichloroethene	0.05	< 5.0		MG/KG
Bromodichloromethane	0.05	< 5.0		MG/KG
2-Chloroethyl Vinyl Ether	0.5	< 50		MG/KG
cis-1,3-Dichloropropene	0.05	< 5.0		MG/KG
trans-1,3-Dichloropropene	0.05	< 5.0		MG/KG
1,1,2-Trichloroethane	0.05	< 5.0		MG/KG
1,3-Dichloropropane	0.05	< 5.0		MG/KG
Dibromomethane	0.05	< 5.0		MG/KG
Toluene	0.05	**19**	✓	**MG/KG**
1,2-Dibromoethane	0.05	< 5.0		MG/KG
4-Methyl-2-Pentanone	0.5	< 50		MG/KG
2-Hexanone	0.5	< 50		MG/KG
Dibromochloromethane	0.05	< 5.0		MG/KG
Tetrachloroethene	0.05	< 5.0		MG/KG
Chlorobenzene	0.05	< 5.0		MG/KG
Ethylbenzene	0.05	**41**	✓	**MG/KG**
1,1,1,2-Tetrachloroethane	0.05	< 5.0		MG/KG

Preliminary Results
Final report will be issued following data review

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)	DATE RECEIVED :	2/5/98
PROJECT NAME	: PENROC		

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT		UNITS
m&p Xylenes	0.05	**54** ✓	**MG/KG**
o-Xylene	0.05	**18** ✓	**MG/KG**
Styrene	0.05	< 5.0	MG/KG
Bromoform	0.05	< 5.0	MG/KG
1,1,2,2-Tetrachloroethane	0.05	< 5.0	MG/KG
1,2,3-Trichloropropane	0.05	< 5.0	MG/KG
Isopropyl Benzene	0.05	**13** ✓	**MG/KG**
Bromobenzene	0.05	< 5.0	MG/KG
trans-1,4-Dichloro-2-Butene	0.05	< 5.0	MG/KG
n-Propylbenzene	0.05	**15** ✓	**MG/KG**
2-Chlorotoluene	0.05	< 5.0	MG/KG
4-Chlorotoluene	0.05	< 5.0	MG/KG
1,3,5-Trimethylbenzene	0.05	**10** ✓	**MG/KG**
tert-Butylbenzene	0.05	< 5.0	MG/KG
1,2,4-Trimethylbenzene	0.05	**33** ✓	**MG/KG**
sec-Butylbenzene	0.05	**8.4** ✓	**MG/KG**
1,3-Dichlorobenzene	0.05	< 5.0	MG/KG
1,4-Dichlorobenzene	0.05	< 5.0	MG/KG
p-Isopropyltoluene	0.05	< 5.0	MG/KG
1,2-Dichlorobenzene	0.05	< 5.0	MG/KG
n-Butylbenzene	0.05	**12** ✓	**MG/KG**
1,2-Dibromomo-3-chloropropane	0.05	< 5.0	MG/KG
1,2,4-Trichlorobenzene	0.05	< 5.0	MG/KG
Naphthalene	0.05	**18** ✓	**MG/KG**
Hexachlorobutadiene	0.05	< 5.0	MG/KG
1,2,3-Trichlorobenzene	0.05	< 5.0	MG/KG

SURROGATE % RECOVERY		
1,2-Dichloroethane-d4	92	(80 - 120)
Toluene-d8	103	(81 - 117)
Bromofluorobenzene	92	(74 - 121)

2/10/98

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"PRELIMINARY RESULTS ONLY - SINGLE"

Accession: 802138
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 802321
Project Name: NMOCD
Project Location: PENROC
Test: Group of Single Wetchem
Matrix: SOLID
QC Level: II

4 of 6

Lab ID: 001
Client Sample ID: 802321-01

Sample Date/Time: 04-FEB-98 1330
Received Date: 06-FEB-98

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CYANIDE, REACTIVE (9010)	MG/KG	ND	0.25		RCX005	CR
SULFIDE, REACTIVE (9030)	MG/KG	ND	5		RSX005	CR

Comments:

American Environmental Network (OR), Inc.
17400 SW Upper Boones Ferry Rd. / Suite 270 / Durham, OR 97224
503-684-0447

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998
AEN Account No.: 90147
AEN Job Number: 98.00249

Project: 802321 / NM Oil Cons. Division
Location: Penroc

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
90089	802321/ NM MALJAMAR PIT	MISC. SOLID	02/04/1998	02/06/1998
90090	NM MALJAMAR PIT/802321-1 TCLP	MISC. SOLID	02/04/1998	02/06/1998

Approved by:

Project Manager
AEN, INC.

Technical Review
AEN, INC.

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 2

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
90089	802321/ NE MALJAMAR PIT

PARAMETERS	METHODS		RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Flashpoint	1010	94	94	140	Degree	02/11/1998	
ICP/AA Digestion - Soil	ICP		-	-		02/09/1998	
Aluminum, ICP	6010	400	400	10	mg/Kg	02/09/1998	
Antimony, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Arsenic, ICP	6010	47	47	1.0	mg/Kg	02/09/1998	
Barium, ICP	6010	57	57	1.0	mg/Kg	02/09/1998	
Beryllium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Boron, ICP	6010	6.6	6.6	10	mg/Kg	02/09/1998	
Cadmium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Calcium, ICP	6010	4700	4700	10	mg/Kg	02/09/1998	
Chromium, ICP	6010	2.0	2.0	1.0	mg/Kg	02/09/1998	
Cobalt, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Copper, ICP	6010	7.5	7.5	1.0	mg/Kg	02/09/1998	
Iron, ICP	6010	3800	3800	5.0	mg/Kg	02/09/1998	Q
Lead, ICP	6010	64	64	1.0	mg/Kg	02/09/1998	
Magnesium, ICP	6010	560	560	10	mg/Kg	02/09/1998	
Manganese, ICP	6010	26	26	1.0	mg/Kg	02/09/1998	
Mercury Prep (S)	7471		-			02/10/1998	
Mercury, CVAA (S)	7471		ND	0.10	mg/Kg	02/10/1998	
Molybdenum, ICP	6010	1.6	1.6	1.0	mg/Kg	02/09/1998	
Nickel, ICP	6010	6.1	6.1	1.0	mg/Kg	02/09/1998	
Potassium, ICP	6010	120	120	5.0	mg/Kg	02/09/1998	
Selenium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Silver, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Thallium, ICP	6010		ND	2.0	mg/Kg	02/09/1998	
Vanadium, ICP	6010	1.1	1.1	1.0	mg/Kg	02/09/1998	
Zinc, ICP	6010	140	140	5.0	mg/Kg	02/09/1998	Q
Corrosivity (pH)		6.5	6.5		units	02/09/1998	
Prep, BNA (S)			-			02/10/1998	
8270 BNA's (S)							
Dilution Factor			1500			02/14/1998	
2-Picoline	8270		ND	360	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 3

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 90089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
N-Nitrosodimethylamine	8270	ND	2,500	mg/Kg	02/14/1998	
Methyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
Phenol	8270	ND	510	mg/Kg	02/14/1998	
Ethyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethyl)ether	8270	ND	260	mg/Kg	02/14/1998	
2-Chlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,3-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,4-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,2-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
o-Cresol	8270	ND	260	mg/Kg	02/14/1998	
Benzyl Alcohol	8270	ND	260	mg/Kg	02/14/1998	
m,p-Cresol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroisopropyl)ether	8270	ND	260	mg/Kg	02/14/1998	
N-nitroso-di-n-propylamine	8270	ND	260	mg/Kg	02/14/1998	
Hexachloroethane	8270	ND	260	mg/Kg	02/14/1998	
Acetophenone	8270	ND	260	mg/Kg	02/14/1998	
Nitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
N-Nitrosopiperidine	8270	ND	260	mg/Kg	02/14/1998	
Isophorone	8270	ND	260	mg/Kg	02/14/1998	
2-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dimethylphenol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethoxy)methane	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,2,4-Trichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Naphthalene	8270	55 55	260	mg/Kg	02/14/1998	J
2,6-Dichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobutadiene	8270	ND	260	mg/Kg	02/14/1998	
a,a,-Dimethylphenylamine	8270	ND	260	mg/Kg	02/14/1998	
N-Nitroso-di-n-butylamine	8270	ND	260	mg/Kg	02/14/1998	
4-Chloro-3-methylphenol	8270	ND	260	mg/Kg	02/14/1998	
2-Methylnaphthalene	8270	160 160	260	mg/Kg	02/14/1998	J
Hexachlorocyclopentadiene	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 644-0447 (503) 620-0393 FAX
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PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
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Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 4

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 80689
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHOD	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
1,2,4,5-Tetrachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,4,6-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4,5-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
1-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
2-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
Dimethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,6-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthylene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthene	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrophenol	8270	ND	1,000	mg/Kg	02/14/1998	
4-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
Dibenzofuran	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
2,3,4,6-Tetrachlorophenol	8270	ND	260	mg/Kg	02/14/1998	
Diethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
4-Chlorophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Fluorene	8270	ND	260	mg/Kg	02/14/1998	
4-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
4,6-Dinitro-2-methylphenol	8270	ND	2,600	mg/Kg	02/14/1998	
N-nitrosodiphenylamine	8270	ND	260	mg/Kg	02/14/1998	
Phenacetin	8270	ND	260	mg/Kg	02/14/1998	
4-Bromophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorophenol	8270	ND	510	mg/Kg	02/14/1998	
4-Aminobiphenyl	8270	ND	510	mg/Kg	02/14/1998	
Pentachloronitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pronamide	8270	ND	260	mg/Kg	02/14/1998	
Phenanthrene	8270	120 [270]	260	mg/Kg	02/14/1998	J
Anthracene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-butylphthalate	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

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PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
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Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 5

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 80089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Pyrene	8270	ND	260	mg/Kg	02/14/1998	
p-Dimethylaminoazobenzene	8270	ND	260	mg/Kg	02/14/1998	
Butylbenzylphthalate	8270	ND	260	mg/Kg	02/14/1998	
3,3-Dichlorobenzidine	8270	ND	260	mg/Kg	02/14/1998	
Bis(2-ethylhexyl)phthalate	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Chrysene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-octylphthalate	8270	ND	260	mg/Kg	02/14/1998	
7,12-Dimethylbenz(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(b)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(k)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenz(a,j)Aeridine	8270	ND	1,000	mg/Kg	02/14/1998	
3-methyl chloanthrene	8270	ND	260	mg/Kg	02/14/1998	
Indeno(1,2,3-cd)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenzo(ah)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(g,h,i)perylene	8270	ND	260	mg/Kg	02/14/1998	

Sample Number: 80090
Sample Description: NE MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			02/10/1998	
Mercury Prep (W)	7470	-			02/11/1998	
TCLP EXTRACTION FREE	1311	-			02/10/1998	
TCLP - Arsenic, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Barium, ICP	6010	0.12 0.12	0.05	mg/L	02/12/1998	
TCLP - Cadmium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Chromium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Mercury	7470	ND	0.0002	mg/L	02/12/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 6

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 80098
Sample Description: NE MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
TCLP - Selenium, ICP	6010	ND	0.08	mg/L	02/12/1998	
TCLP - Silver, ICP	6010	ND	0.05	mg/L	02/12/1998	
Prep, BNA (N)		-			02/10/1998	
TCLP - 8240						
TCLP - Benzene	8240	0.97	0.370	0.5	mg/L	02/10/1998
TCLP - Carbon tetrachloride	8240	ND		0.5	mg/L	02/10/1998
TCLP - Chlorobenzene	8240	ND		100	mg/L	02/10/1998
TCLP - Chloroform	8240	ND		6.0	mg/L	02/10/1998
TCLP - 1,4-Dichlorobenzene	8240	ND		7.5	mg/L	02/10/1998
TCLP - 1,2-Dichloroethane	8240	ND		0.5	mg/L	02/10/1998
TCLP - 1,1-Dichloroethene	8240	ND		0.7	mg/L	02/10/1998
TCLP - Methyl Ethyl Ketone	8240	ND		200	mg/L	02/10/1998
TCLP - Tetrachloroethene	8240	ND		0.7	mg/L	02/10/1998
TCLP - Trichloroethene	8240	ND		0.5	mg/L	02/10/1998
TCLP - Vinyl Chloride	8240	ND		0.2	mg/L	02/10/1998
BASE NEUTRAL COMPOUNDS - TCLP						
TCLP-1,4-Dichlorobenzene	8270	ND		7.5	mg/L	02/11/1998
TCLP-2,4-Dinitrotoluene	8270	ND		0.13	mg/L	02/11/1998
TCLP-Hexachlorobenzene	8270	ND		0.13	mg/L	02/11/1998
TCLP-Hexachlorobutadiene	8270	ND		0.5	mg/L	02/11/1998
TCLP-Hexachloroethane	8270	ND		3.0	mg/L	02/11/1998
TCLP-Nitrobenzene	8270	ND		2.0	mg/L	02/11/1998
TCLP-Pyridine	8270	ND		5.0	mg/L	02/11/1998
ACID COMPOUNDS - TCLP						
TCLP-m&p-Cresol	8270	ND		200	mg/L	02/11/1998
TCLP-o-Cresol	8270	ND		200	mg/L	02/11/1998
TCLP-Pentachlorophenol	8270	ND		100	mg/L	02/11/1998
TCLP-2,4,6-Trichlorophenol	8270	ND		400	mg/L	02/11/1998
TCLP-2,4,6-Trichlorophenol	8270	ND		2.0	mg/L	02/11/1998

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

PRELIMINARY REPORT

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 2/5/98 PAGE: 1 OF 1

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division

ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505

PHONE: (505) 827-7154

FAX: (505) 827-8177

BILL TO: same

COMPANY:

ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline)	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	Flashpoint + Corrosivity	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310)	General Chemistry:	TCLP-VOA (8260)	TCLP-SVOA (8270)	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals: 6010 + Hg, Se by AA	REACTIVITY (Lab)
NE Maljamar Pit	2/4/98	1330	Waste	01											X		X				X				X	X				X	X	X

PROJECT INFORMATION

PROJ. NO.:

PROJ. NAME: Penroc

P.O. NO.:

SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS:	3
CUSTODY SEALS:	Y / N (N/A)
RECEIVED INTACT:	Yes
BLUE ICE/ICE:	5° C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY

Signature: Time: 1225

Printed Name: Bill Olson Date: 2/5/98

Company: NMOCD

RECEIVED BY

Signature: Time:

Printed Name: Date:

Company:

RELINQUISHED BY

Signature: Time:

Printed Name: Date:

Company:

RECEIVED BY LAB

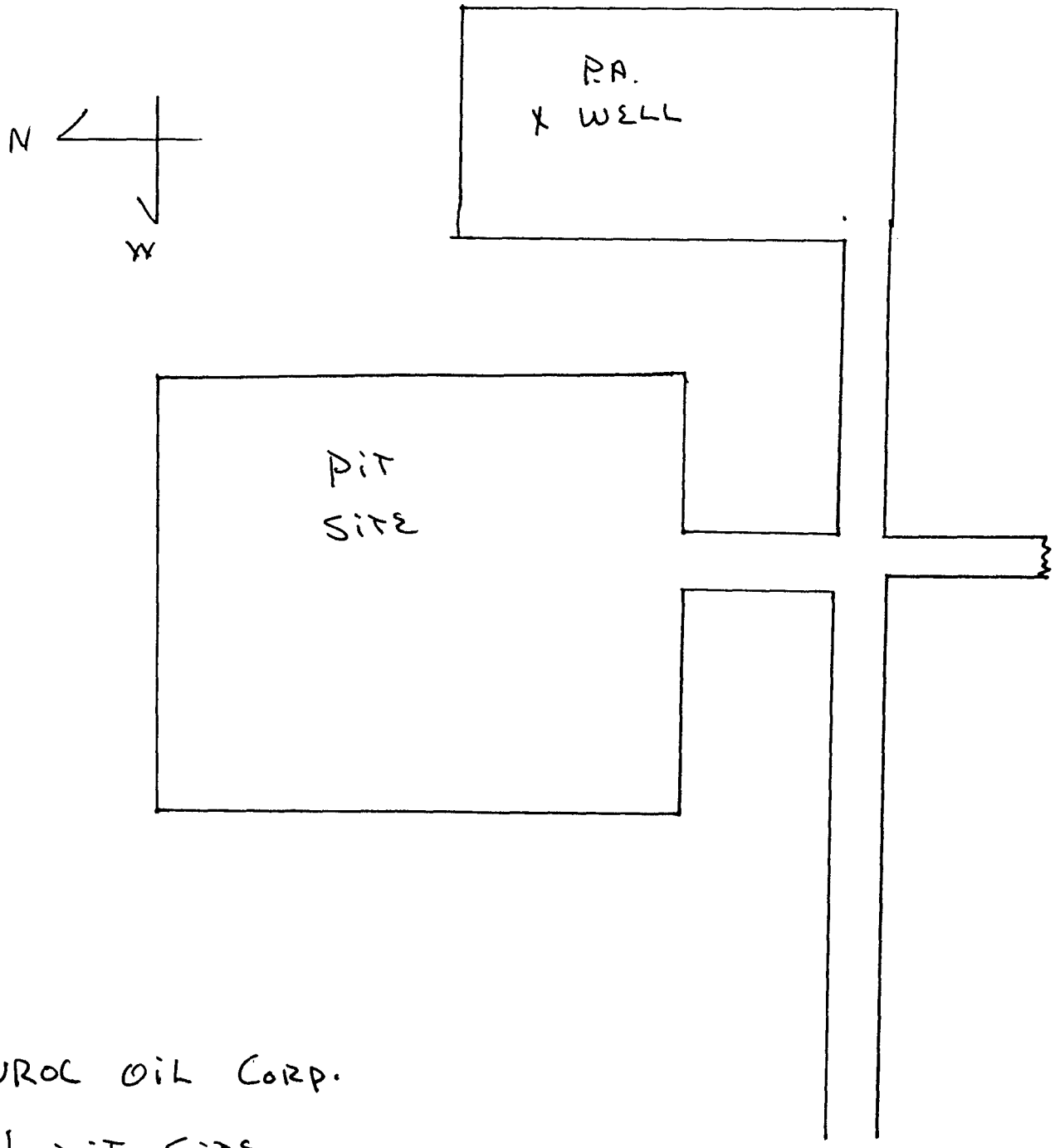
Signature: Time:

Printed Name: Date:

American Environmental Network (NM), Inc.

DISTRIBUTION: White - AEN, Canary - Originator

SITE MAPS



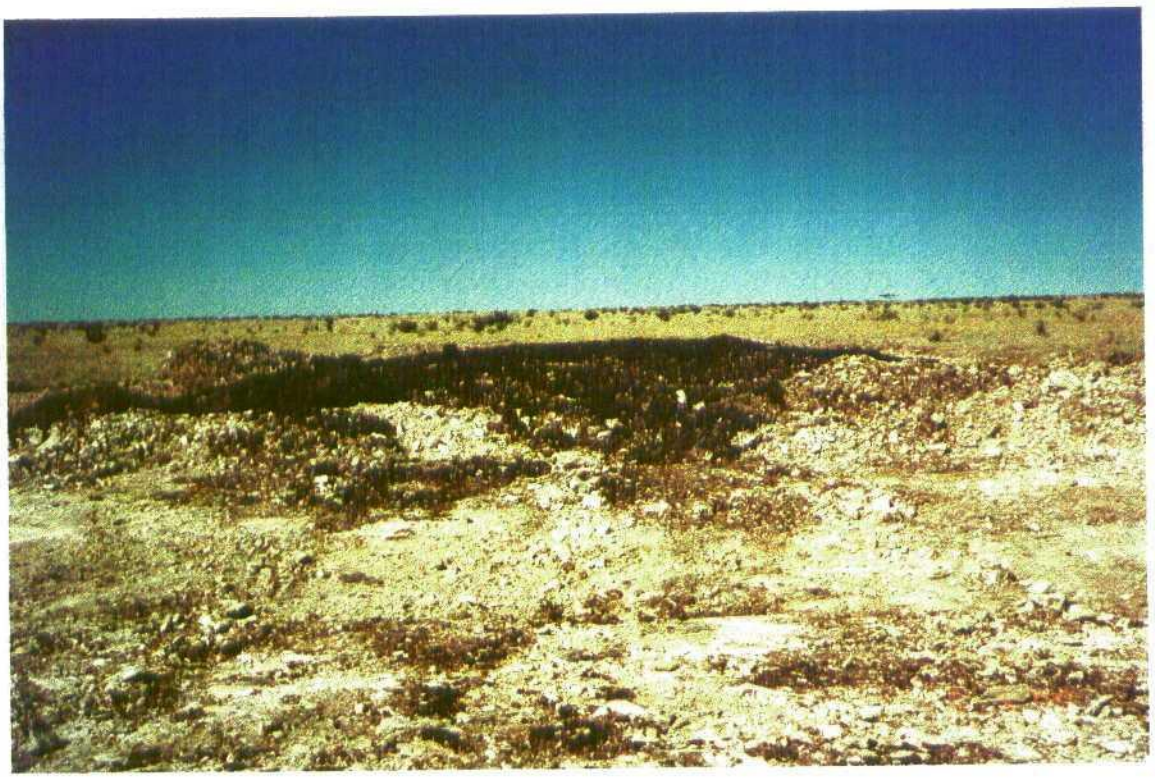
PENROC OIL CORP.

OLD PIT SITE

NW/4 SEC. 5, T17S, R33E

LEA COUNTY, NEW MEXICO

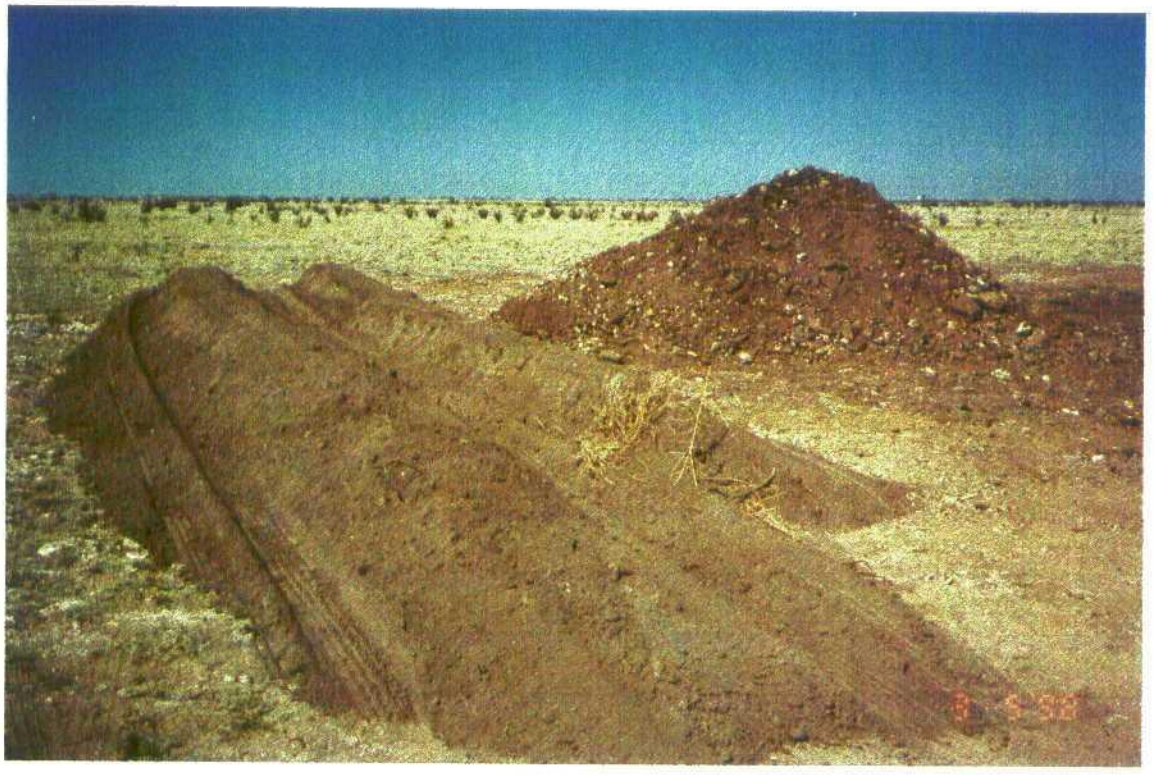
JOB/SITE PHOTOS



JOB/SITE PHOTOS

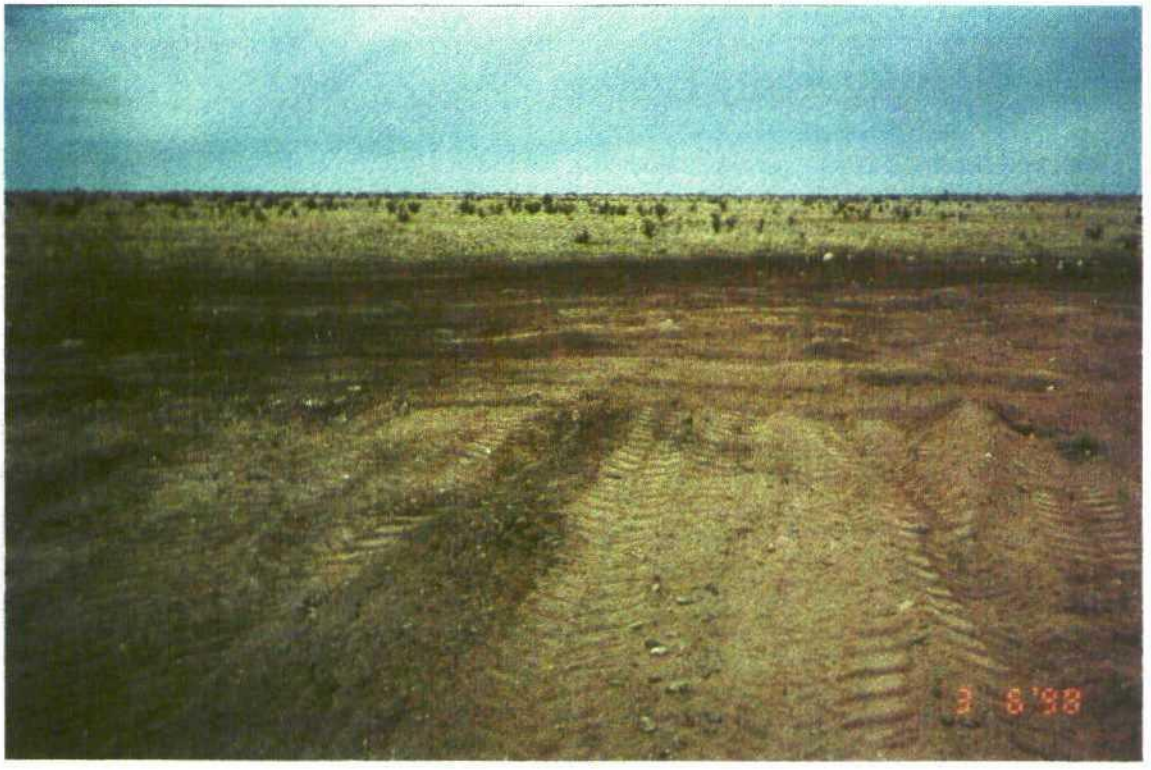
JOB/SITE PHOTOS

JOB/SITE PHOTOS



JOB/SITE PHOTOS

JOB/SITE PHOTOS



JOB/SITE PHOTOS

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

March 26, 1998

Mr. Rodman C. Johnson
Bracewell & Patterson, L.L.P.
111 Congress Avenue Ste 2300
Austin, Texas 78701-4052

Re: Records Request to the Oil Conservation Division

Dear Mr. Johnson:

The Oil Conservation Division received your request for certain documents related to Warrier, Inc. and Penroc Oil. We have in our records in Santa Fe documents related to Penroc Oil. We will have those documents copied and mailed to you within two weeks. The copying charge is $0.25 per page.

However, the complete records of the nature you are seeking are maintained at the Division's district offices. For Lea County, the Hobbs District Office of the Division is the custodian of such records. The mailing address for the Hobbs District Office is: P.O. Box 1980, Hobbs, NM 87241. The location is 1000 W. Broadway, and the phone number is (505) 393-6161.

I am forwarding your request to the Hobbs District Office for response.

Sincerely,

Marilyn S. Hebert

CONFIDENTIAL

PENROC OIL CORPORATION

MAILING ADDRESS:

P.O. Box 5970
Hobbs, NM 88241-5970
Office: (505) 397-3596
Fax: (505) 393-7051

PHYSICAL ADDRESS:

5014 Carlsbad Highway
Hobbs, NM 88240

FAX TRANSMISSION COVER SHEET

Date: February 3, 1998

Company: NMOCD

Attention: Mr. Rand Carroll / Ms. Martyne Kieling

Fax Number: (505) 827-8177

Sender: M. Y. Merchant

YOU SHOULD RECEIVE 4 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (505) 397-3596.

MESSAGE:

PENROC

Via Fax: 505/827-8177

February 3, 1998

Mr. Rand Carroll
NMOCD-Santa Fe
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Abandoned Pit
NW/4, Section 5, Township 17 South, Range 33 East
Lea County, New Mexico

Dear Rand:

This letter is in response to your letter dated January 30, 1998. I have reviewed your letter after my return from Houston yesterday.

Attached you will find a closure and remedial plan prepared by CSI of Hobbs. I had filed a similar plan under the NMOCD pit closure guidelines and Mr. Wayne Price of Hobbs, NMOCD, approved a C-103 on September 26, 1997.

I have noted your schedule for February 4, 1998. I am leaving the same day for Houston and onwards to Middle East on a previously scheduled trip. I will tentatively return after the 25th of February. Mr. Allen Hodges of CSI will witness the sample collection by NMOCD at this pit. **Please note NMOCD representative can be any one except Mr. Wayne Price.** I make this request because of well-documented discriminatory and un-ethical actions by Mr. Wayne Price against my firm and me since 1993.

Also, please note the law firm of Mr. William F. Carr is not representing Penroc or me at this time. I plan to resolve these problems in an amicable way; however, if legal representation is needed in the future, I will retain the same.

Please contact me at the above phone or fax for any comments or questions you may have. Thank you for your attention to this matter.

Sincerely,

M. Y. (Merch) Merchant
President

CC: All Interested Parties

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone
(505) 393-7051 FAX

Engineering and
Construction
Services

Constructive Solutions, Inc.

Building a Better Environment

February 2,1998

Mr. M.Y. Merchant

Penroc Oil Corporation
PO Box 5970
Hobbs, New Mexico 88241

RE: Work Plan for Disposal Pit located NW/4, Sec. 5, T17S, R33E of Lea County, NM

Mr. Merchant

Constructive Solutions, Inc. (CSI) is pleased to present this work plan to close the pit at the above listed site. The work plan was developed to close the pit in accordance with New Mexico Oil Conservation Division (NMOCD) Unlined Surface Impoundment Closure Guides as specified in the NMOCD's guidelines dated February, 1993. It is our understanding that any potential contamination of the pit was the result of activities associated with the operation of an oil and gas company.

The potential contaminates of concern are expected to be mid level concentrations of petroleum hydrocarbons, produced water and possibly metals that may have been discharged into the pits and absorbed by the surrounding soils.

The NMOCD regulates disposal of non-domestic wastes resulting from the production of the oil and gas industry. In addition, the NMOCD administers all Water Quality Act regulations pertaining to surface and ground water except sewage for the oil field service industry. This authority includes the disposition of non-domestic, non-hazardous wastes at oil field facilities.

Scope of Work

1. Excavate the pit and any near surface soils containing any observed potential contamination. Initial excavation operations will consist of removing the soils to a depth to where the TPH levels have dropped below 100 ppm to minimize the volume of waste generated (estimated waste volume is approximately 233 cubic yards based on a pit that is 25 x 25 x 10). The excavated soils will be stockpiled at an on-site location pending waste characterization and disposal. The soils will be staged on and covered with plastic to prevent the potential spread of contamination.

2. Collect five (5) soil samples of the excavated area for Total Petroleum Hydrocarbons (TPH) analysis to verify that the remaining surface soils at the site are below NMOCD clean up guidelines for TPH levels for spills/releases. Should the TPH concentrations in the remaining soils exceed NMOCD levels, an additional excavation layer of soil will be removed and stockpiled.

3. Once TPH levels are below the NMOCD clean up guidelines, final samples will be taken to be analyzed at a third party lab for TPH, BTEX and Chlorides CL before backfilling operations begin.

P.O. Box 25547 • Albuquerque, NM 87125 • (505) 242-6464 • Fax (505) 247-4941
3711 East Miami • Phoenix, AZ 85040 • (602) 431-1600 • Fax (602) 431-0900

Constructive Solutions, Inc.

4 Collect a composite sample of the excavated material for laboratory analysis. The purpose of the composite sample is to characterize the excavated material for waste classification in accordance with RCRA Subtitle C regulations. The sample will be analyzed for TPH, volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), eight RCRA metals, and solid waste characteristics (ignitability, corrositivity, reactivity, and toxicity).

5 Should the analytical results from the sample of excavated material record levels of individual compounds that exceed EPA maximum concentration levels (MCL) for toxicity characteristics, a sampling plan to verify the soils remaining in the excavated area are below MCL levels will be developed. This plan will include the collection of a minimum of two (2) soil samples from randomly selected locations with in the excavated area. In order to minimize costs, the samples will be analyzed for only compounds that exceeded MCL levels.

6 Should the analytical results record individual compound concentrations below EPA listed MCL, the tested materials will be considered a non-hazardous waste generated at an oil field facility. The materials will be transported to a NMOCD permitted commercial waste disposal facility. Each load of material will be accompanied by a manifest in accordance with Section 711 of the New Mexico Solid Waste Management Regulations.

7 Once excavation operations have been completed and the analysis from the lab meets the NMOCD levels for closure, the site will be backfilled back to grade and restored back to it's natural state.

Should excavation operations identify any additional concerns outside the scope of work, an approval from a representative of Penroc will be obtained prior to performing any additional services

CSI appreciates this opportunity to provide you with our professional services. Please feel free to call us at any time for further information or questions you may have with regards to our work plan.

Respectfully

Allen Hodge, REM
Hobbs Operations Manager
Constructive Solutions, Inc.

American Environmental Network

FAX TRANSMITTAL SHEET

DELIVER TO: Marlene **PHONE NUMBER:**

COMPANY: NMOCD **FAX NUMBER:** 505-827-8177

NUMBER OF PAGES BEING SENT: 10 (INCLUDING THIS PAGE)

From: Date: 2/18

H. Mitchell Rubenstein, Ph.D., General Manager
✓ Kimberly D. McNeill, Project Manager
Francine J. Torivio, Administrative Assistant
Brian Price, Sample Control
Christopher Froehlich, QA Coordinator

Time:

FAX NUMBER:
(505) 344-4413

COMMENTS:

Perroc data

I rewrote some results beside the number since sometimes the numbers do not fax very well.

If you did not receive all pages of this transmission or if you experience Fax Transmission problems. Please call **(505) 344-3777**, as soon as possible after the receipt.

Preliminary Results
Final report will be issued following data review

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)	DATE RECEIVED :	2/5/98
PROJECT NAME	: PENROC		

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT		UNITS
Dichlorodifluoromethane	0.05	< 5.0	MG/KG
Chloromethane	0.05	< 5.0	MG/KG
Vinyl Chloride	0.05	< 5.0	MG/KG
Bromomethane	0.05	< 5.0	MG/KG
Chloroethane	0.05	< 5.0	MG/KG
Trichlorofluoromethane	0.05	< 5.0	MG/KG
Acetone	0.5	< 50	MG/KG
Acrolein	0.25	< 25	MG/KG
1,1-Dichloroethene	0.05	< 5.0	MG/KG
Iodomethane	0.05	< 5.0	MG/KG
Methylene Chloride	0.05	< 5.0	MG/KG
Acrylonitrile	0.25	< 25	MG/KG
cis-1,2-Dichloroethene	0.05	< 5.0	MG/KG
Methyl-t-butyl Ether	0.05	< 5.0	MG/KG
1,1,2,1,2,2-Trichlorotrifluoroethane	0.05	< 5.0	MG/KG
1,1-Dichloroethane	0.05	< 5.0	MG/KG
trans-1,2-Dichloroethene	0.05	< 5.0	MG/KG
2-Butanone	0.5	< 50	MG/KG
Carbon Disulfide	0.05	< 5.0	MG/KG
Bromochloromethane	0.05	< 5.0	MG/KG
Chloroform	0.05	< 5.0	MG/KG
2,2-Dichloropropane	0.05	< 5.0	MG/KG
1,2-Dichloroethane	0.05	< 5.0	MG/KG
Vinyl Acetate	0.05	< 5.0	MG/KG
1,1,1-Trichloroethane	0.05	< 5.0	MG/KG
1,1-Dichloropropene	0.05	< 5.0	MG/KG
Carbon Tetrachloride	0.05	< 5.0	MG/KG
Benzene	0.05	**47**	**MG/KG**
1,2-Dichloropropane	0.05	< 5.0	MG/KG
Trichloroethene	0.05	< 5.0	MG/KG
Bromodichloromethane	0.05	< 5.0	MG/KG
2-Chloroethyl Vinyl Ether	0.5	< 50	MG/KG
cis-1,3-Dichloropropene	0.05	< 5.0	MG/KG
trans-1,3-Dichloropropene	0.05	< 5.0	MG/KG
1,1,2-Trichloroethane	0.05	< 5.0	MG/KG
1,3-Dichloropropane	0.05	< 5.0	MG/KG
Dibromomethane	0.05	< 5.0	MG/KG
Toluene	0.05	**19**	**MG/KG**
1,2-Dibromoethane	0.05	< 5.0	MG/KG
4-Methyl-2-Pentanone	0.5	< 50	MG/KG
2-Hexanone	0.5	< 50	MG/KG
Dibromochloromethane	0.05	< 5.0	MG/KG
Tetrachloroethene	0.05	< 5.0	MG/KG
Chlorobenzene	0.05	< 5.0	MG/KG
Ethylbenzene	0.05	**41**	**MG/KG**
1,1,1,2-Tetrachloroethane	0.05	< 5.0	MG/KG

Preliminary Results
Final report will be issued following data review

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)	DATE RECEIVED :	2/5/98
PROJECT NAME	: PENROC		

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT		UNITS
m&p Xylenes	0.05	**54** ✓	**MG/KG**
o-Xylene	0.05	**16** ✓	**MG/KG**
Styrene	0.05	< 5.0	MG/KG
Bromoform	0.05	< 5.0	MG/KG
1,1,2,2-Tetrachloroethane	0.05	< 5.0	MG/KG
1,2,3-Trichloropropane	0.05	< 5.0	MG/KG
Isopropyl Benzene	0.05	**13** ✓	**MG/KG**
Bromobenzene	0.05	< 5.0	MG/KG
trans-1,4-Dichloro-2-Butene	0.05	< 5.0	MG/KG
n-Propylbenzene	0.05	**16** ✓	**MG/KG**
2-Chlorotoluene	0.05	< 5.0	MG/KG
4-Chlorotoluene	0.05	< 5.0	MG/KG
1,3,5-Trimethylbenzene	0.05	**10** ✓	**MG/KG**
tert-Butylbenzene	0.05	< 5.0	MG/KG
1,2,4-Trimethylbenzene	0.05	**33** ✓	**MG/KG**
sec-Butylbenzene	0.05	**8.4** ✓	**MG/KG**
1,3-Dichlorobenzene	0.05	< 5.0	MG/KG
1,4-Dichlorobenzene	0.05	< 5.0	MG/KG
p-Isopropyltoluene	0.05	< 5.0	MG/KG
1,2-Dichlorobenzene	0.05	< 5.0	MG/KG
n-Butylbenzene	0.05	**12** ✓	**MG/KG**
1,2-Dibromomo-3-chloropropane	0.05	< 5.0	MG/KG
1,2,4-Trichlorobenzene	0.05	< 5.0	MG/KG
Naphthalene	0.05	**18** ✓	**MG/KG**
Hexachlorobutadiene	0.05	< 5.0	MG/KG
1,2,3-Trichlorobenzene	0.05	< 5.0	MG/KG

SURROGATE % RECOVERY		
1,2-Dichloroethane-d4	92	(80 - 120)
Toluene-d8	103	(81 - 117)
Bromofluorobenzene	92	(74 - 121)

2/10/98

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"PRELIMINARY RESULTS ONLY - SINGLE"

Accession: 802138
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 802321
Project Name: NMOCD
Project Location: PENROC
Test: Group of Single Wetchem
Matrix: SOLID
QC Level: II

4 of 6

Lab ID: 001
Client Sample ID: 802321-01
Sample Date/Time: 04-FEB-98 1330
Received Date: 06-FEB-98

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CYANIDE, REACTIVE (9010)	MG/KG	ND	0.25		RCX005	CR
SULFIDE, REACTIVE (9030)	MG/KG	ND	5		RSX005	CR

Comments:

American Environmental Network (OR), Inc.
17400 SW Upper Boones Ferry Rd. / Suite 270 / Durham, OR 97224
503-684-0447

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998
AEN Account No.: 90147
AEN Job Number: 98.00249

Project: 802321 / NM Oil Cons. Division
Location: Penroc

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
90089	802321/ NE MALJAMAR PIT	MISC. SOLID	02/04/1998	02/06/1998
90090	NE MALJAMAR PIT/802321-1 TCLP	MISC. SOLID	02/04/1998	02/06/1998

Approved by:

Project Manager
AEN, INC.

Technical Review
AEN, INC.

The results from these samples relate only to the items tested. This report shall not be reproduced, except in full, without the written approval of the laboratory.

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 2

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 80089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS		RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Flashpoint	1010	94	94	140	Degree	02/11/1998	
ICP/AA Digestion - Soil	ICP		-	-		02/09/1998	
Aluminum, ICP	6010	400	400	10	mg/Kg	02/09/1998	
Antimony, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Arsenic, ICP	6010	47	47	1.0	mg/Kg	02/09/1998	
Barium, ICP	6010	57	57	1.0	mg/Kg	02/09/1998	
Beryllium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Boron, ICP	6010	6.6	6.6	10	mg/Kg	02/09/1998	
Cadmium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Calcium, ICP	6010	4700	4700	10	mg/Kg	02/09/1998	
Chromium, ICP	6010	2.0	2.0	1.0	mg/Kg	02/09/1998	
Cobalt, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Copper, ICP	6010	7.5	7.5	1.0	mg/Kg	02/09/1998	
Iron, ICP	6010	3800	3800	5.0	mg/Kg	02/09/1998	Q
Lead, ICP	6010	64	64	1.0	mg/Kg	02/09/1998	
Magnesium, ICP	6010	560	560	10	mg/Kg	02/09/1998	
Manganese, ICP	6010	26	26	1.0	mg/Kg	02/09/1998	
Mercury Prep (S)	7471		-			02/10/1998	
Mercury, CVAA (S)	7471		ND	0.10	mg/Kg	02/10/1998	
Molybdenum, ICP	6010	1.6	1.6	1.0	mg/Kg	02/09/1998	
Nickel, ICP	6010	6.1	6.1	1.0	mg/Kg	02/09/1998	
Potassium, ICP	6010	120	120	5.0	mg/Kg	02/09/1998	
Selenium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Silver, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Thallium, ICP	6010		ND	1.0	mg/Kg	02/09/1998	
Vanadium, ICP	6010	1.1	1.1	1.0	mg/Kg	02/09/1998	
Zinc, ICP	6010	140	140	5.0	mg/Kg	02/09/1998	Q
Corrosivity (pH)		6.5	6.5		Units	02/09/1998	
Prep, BNA (S)			-			02/10/1998	
8270 BNA's (S)							
Dilution Factor			1500			02/14/1998	
2-Picoline	8270		ND	360	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 3

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 90089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
N-Nitrosodimethylamine	8270	ND	2,600	mg/Kg	02/14/1998	
Methyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
Phenol	8270	ND	510	mg/Kg	02/14/1998	
Ethyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethyl)ether	8270	ND	260	mg/Kg	02/14/1998	
2-Chlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,3-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,4-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,2-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
o-Cresol	8270	ND	260	mg/Kg	02/14/1998	
Benzyl Alcohol	8270	ND	260	mg/Kg	02/14/1998	
m,p-Cresol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroisopropyl)ether	8270	ND	260	mg/Kg	02/14/1998	
N-nitroso-di-n-propylamine	8270	ND	260	mg/Kg	02/14/1998	
Hexachloroethane	8270	ND	260	mg/Kg	02/14/1998	
Acetophenone	8270	ND	260	mg/Kg	02/14/1998	
Nitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
N-Nitrosopiperidine	8270	ND	260	mg/Kg	02/14/1998	
Isophorone	8270	ND	260	mg/Kg	02/14/1998	
2-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dimethylphenol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethoxy)methane	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,2,4-Trichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Naphthalene	8270	66 555	260	mg/Kg	02/14/1998	J
2,6-Dichlorphenol	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobutadiene	8270	ND	260	mg/Kg	02/14/1998	
a,a,-Dimethylphenylamine	8270	ND	260	mg/Kg	02/14/1998	
N-Nitroso-di-n-butylamine	8270	ND	260	mg/Kg	02/14/1998	
4-Chloro-3-methylphenol	8270	ND	260	mg/Kg	02/14/1998	
2-Methylnaphthalene	8270	160 160	260	mg/Kg	02/14/1998	J
Hexachlorocyclopentadiene	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 4

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 90689
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
1,2,4,5-Tetrachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,4,6-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4,5-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
1-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
2-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
Dimethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,6-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthylene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthene	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrophenol	8270	ND	1,000	mg/Kg	02/14/1998	
4-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
Dibenzofuran	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
2,3,4,6-Tetrachlorophenol	8270	ND	260	mg/Kg	02/14/1998	
Diethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
4-Chlorophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Fluorene	8270	ND	260	mg/Kg	02/14/1998	
4-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
4,6-Dinitro-2-methylphenol	8270	ND	2,600	mg/Kg	02/14/1998	
N-nitrosodiphenylamine	8270	ND	260	mg/Kg	02/14/1998	
Phenacetin	8270	ND	260	mg/Kg	02/14/1998	
4-Bromophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorophenol	8270	ND	510	mg/Kg	02/14/1998	
4-Aminobiphenyl	8270	ND	510	mg/Kg	02/14/1998	
Pentachloronitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pronamide	8270	ND	260	mg/Kg	02/14/1998	
Phenanthrene	8270	120 (20)	260	mg/Kg	02/14/1998	J
Anthracene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-butylphthalate	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (505) 564-0447 (505) 620-0393 Fax
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 5

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 80089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Pyrene	8270	ND	260	mg/Kg	02/14/1998	
p-Dimethylaminoazobenzene	8270	ND	260	mg/Kg	02/14/1998	
Butylbenzylphthalate	8270	ND	260	mg/Kg	02/14/1998	
3,3-Dichlorobenzidine	8270	ND	260	mg/Kg	02/14/1998	
Bis(2-ethylhexyl)phthalate	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Chrysene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-octylphthalate	8270	ND	260	mg/Kg	02/14/1998	
7,12-Dimethylbenz(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(b)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(k)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenz(a,j)Acridine	8270	ND	1,000	mg/Kg	02/14/1998	
3-methyl chloanthrene	8270	ND	260	mg/Kg	02/14/1998	
Indeno(1,2,3-cd)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenzo(ah)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(g,h,i)perylene	8270	ND	260	mg/Kg	02/14/1998	

Sample Number: 80090
Sample Description: NE MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			02/10/1998	
Mercury Prep (W)	7470	-			02/11/1998	
TCLP EXTRACTION PREP	1311	-			02/10/1998	
TCLP - Arsenic, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Barium, ICP	6010	0.12 0.1g	0.05	mg/L	02/12/1998	
TCLP - Cadmium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Chromium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Mercury	7470	ND	0.0002	mg/L	02/12/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

PRELIMINARY REPORT

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Page: 6

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
80090	NM MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
TCLP - Selenium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Silver, ICP	6010	ND	0.05	mg/L	02/12/1998	
Prep, BNA (W)		-			02/10/1998	
TCLP - 8240						
TCLP - Benzene	8240	0.97 0.970	0.5	mg/L	02/10/1998	
TCLP - Carbon tetrachloride	8240	ND	0.5	mg/L	02/10/1998	
TCLP - Chlorobenzene	8240	ND	100	mg/L	02/10/1998	
TCLP - Chloroform	8240	ND	6.0	mg/L	02/10/1998	
TCLP - 1,4-Dichlorobenzene	8240	ND	7.5	mg/L	02/10/1998	
TCLP - 1,2-Dichloroethane	8240	ND	0.5	mg/L	02/10/1998	
TCLP - 1,1-Dichloroethene	8240	ND	0.7	mg/L	02/10/1998	
TCLP - Methyl Ethyl Ketone	8240	ND	200	mg/L	02/10/1998	
TCLP - Tetrachloroethene	8240	ND	0.7	mg/L	02/10/1998	
TCLP - Trichloroethene	8240	ND	0.5	mg/L	02/10/1998	
TCLP - Vinyl Chloride	8240	ND	0.2	mg/L	02/10/1998	
BASE NEUTRAL COMPOUNDS - TCLP						
TCLP-1,4-Dichlorobenzene	8270	ND	7.5	mg/L	02/11/1998	
TCLP-2,4-Dinitrotoluene	8270	ND	0.13	mg/L	02/11/1998	
TCLP-Hexachlorobenzene	8270	ND	0.13	mg/L	02/11/1998	
TCLP-Hexachlorobutadiene	8270	ND	0.5	mg/L	02/11/1998	
TCLP-Hexachloroethane	8270	ND	3.0	mg/L	02/11/1998	
TCLP-Nitrobenzene	8270	ND	2.0	mg/L	02/11/1998	
TCLP-Pyridine	8270	ND	5.0	mg/L	02/11/1998	
ACID COMPOUNDS - TCLP						
TCLP-m&p-Cresol	8270	ND	200	mg/L	02/11/1998	
TCLP-o-Cresol	8270	ND	200	mg/L	02/11/1998	
TCLP-Pentachlorophenol	8270	ND	100	mg/L	02/11/1998	
TCLP-2,4,5-Trichlorophenol	8270	ND	400	mg/L	02/11/1998	
TCLP-2,4,6-Trichlorophenol	8270	ND	2.0	mg/L	02/11/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

PRELIMINARY REPORT

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 2/5/98 PAGE: 1 OF 1

AEN(NM) Accession #: 802321

SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division
ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505
PHONE: (505) 827-7154
FAX: (505) 827-8177
BILL TO: Same
COMPANY:
ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
NE Maljamar Pit	2/4/98	1330	waste	-01

ANALYSIS REQUEST

Analysis	NE Maljamar Pit (-01)
Petroleum Hydrocarbons (418.1) TRPH	
(MOD.8015) Diesel/Direct Inject	
(M8015) Gas/Purge & Trap	
8021 (BTEX)/8015 (Gasoline)	
8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	
8021 (TCL)	
8021 (EDX)	
8021 (HALO)	
8021 (CUST)	
504.1 EDB ☐ / DBCP ☐	
Flashpoint + corrosivity	X
8260 (TCL) Volatile Organics	
8260 (Full) Volatile Organics	X
8260 (CUST) Volatile Organics	
8260 (Landfill) Volatile Organics	
Pesticides /PCB (608/8081)	
Herbicides (615/8151)	
Base/Neutral/Acid Compounds GC/MS (625/8270)	X
Polynuclear Aromatics (610/8310)	
General Chemistry:	
TCLP-VOA (8260)	X
TCLP-Semi-vol (8270)	X
Priority Pollutant Metals (13)	
Target Analyte List Metals (23)	
RCRA Metals (8)	
RCRA Metals by TCLP (Method 1311)	X
Metals: 6010 + Hg, Se by AA	X
Reactivity (CN/S)	X
NUMBER OF CONTAINERS	3

10:35 Phone AEN 2/18/98
Kim McNeil
Will Fax Report -
Marlyn

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT INFORMATION	
PROJ. NO.:	
PROJ. NAME:	Penroc
P.O. NO.:	
SHIPPED VIA:	

SAMPLE RECEIPT	
NO. CONTAINERS	3
CUSTODY SEALS	Y / N / (NA)
RECEIVED INTACT	Yes
BLUE ICE/ICE	5°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.
Signature: [signature] Time: 1225
Printed Name: Bill Olson Date: 2/5/98
Company: NMOCD

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

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

RECEIVED BY: (LAB) 2.
Signature: [signature] Time: 1225
Printed Name: John Caldwell Date: 2/5/98
American Environmental Network (NM), Inc.

COMMONLY REQUESTED GENERAL CHEMISTRY

ABV.	ANALYSES
ALK	Alkalinity (Bicarbonate+Carbonate)
NH4	Ammonia
BOD	Biochemical Oxygen Demand
BR	Bromide
Cl	Chloride
COD	Chemical Oxygen Demand
E.C.	Conductivity
CN	Cyanide, Total
F	Fluoride
N03	Nitrate
N02/N03	Nitrite/Nitrate
N02	Nitrite
TKN	Total Kjaidahl Nitrogen
O-G	Oil-Grease
PH	PH
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
S04	Sulfate
S^{-2}	Sulfide
TOC	Total Organic Carbon
TOX	Total Organic Halide

SW846-UPDATE III DEFINITIONS (6/25/97)

Per EPA methods 8010, 8020, and 8240 have been deleted.
The following test codes and definitions replace these methods:

GC

New Method	Analysis
8021 (BTEX)	Formerly 8020 (BTEX) Compound List
8021 (TCL)	Formerly 8020/8010 Target Compound List
8021 (EDX)	BTEX + EDB, EDC
8021 (HALO)	Formerly 8010 Halogenated Compound List
8021 (CUST)	A partial/customer defined list

GCMS

New Method	Analysis
8260 (TCL)	Formerly 8240 Target Compound List
8260 (FULL)	Full 8260 Compound List
8260 (CUST)	A partial/customer defined list
8260 (LANDFILL)	NM Landfill (WQCC) list

METALS COMMONLY ANALYZED

PRIORITY POLLUTANT LIST (PP) • RCRA • TARGET ANALYTE LIST (TAL)

NAME	SYMBOL	LIST
Aluminum	Al	TAL
Antimony	Sb	PP,TAL
Arsenic	As	RCRA, PP, TAL
Barium	Ba	RCRA, TAL
Beryllium	Be	PP,TAL
Bismuth	Bi	
Boron	B	
Cadmium	Cd	RCRA, PP, TAL
Calcium	Ca	TAL
Chromium	Cr	RCRA, PP, TAL
Cobalt	Co	TAL
Copper	Cu	PP, TAL
Gold	Au	
Iron	Fe	TAL
Lead	Pb	RCRA, PP, TAL
Lithium	Li	
Magnesium	Mg	TAL
Manganese	Mn	TAL
Mercury	Hg	RCRA, PP, TAL
Molybdenum	Mo	
Nickel	Ni	PP, TAL
Potassium	K	TAL
Selenium	Se	RCRA, PP, TAL
Silicon	Si	
Silver	Ag	RCRA, PP, TAL
Sodium	Na	TAL
Strontium	Sr	
Sulfur	S	
Thallium	Tl	PP, TAL
Tin	Sn	
Titanium	Ti	
Uranium	U	
Vanadium	V	TAL
Zinc	Zn	PP, TAL

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 19, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-399

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: Unauthorized Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) received Penroc Oil Corporation's (Penroc) letter and pit closure plan dated February 3, 1998 concerning the above-referenced waste disposal pits. The OCD has found that the pit closure plan submitted by Constructive Solutions, Inc. (CSI) for Penroc is complete. However, the OCD Santa Fe and Hobbs District offices shall be notified **two (2) working days** prior to CSI taking final confirmatory samples. As written in the pit closure plan, the final confirmatory samples will be analyzed at a third party laboratory for TPH, BTEX, and chloride prior to backfilling the pits.

In addition, the OCD has received preliminary analytical results from the Environmental Bureau's February 4, 1998 sampling event. The TCLP and hazardous characteristic analytical results verified that the non-exempt pits at the above location contained non-hazardous waste. Therefore, this waste may be removed to an OCD approved waste management facility. Please find enclosed a copy of the preliminary OCD results from American Environmental Network.

Penroc shall submit a final closure report to the OCD Santa Fe and Hobbs District offices **no later than April 24, 1998.**

If you have any questions, please feel free to call me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: Hobbs OCD Office
Jens W. Deichmann, State Land Office
Allen Hodge, CSI
Ken Marsh, CRI

CONFIDENTIAL

PENROC OIL CORPORATION

MAILING ADDRESS:

P.O. Box 5970
Hobbs, NM 88241-5970
Office: (505) 397-3596
Fax: (505) 393-7051

PHYSICAL ADDRESS:

5014 Carlsbad Highway
Hobbs, NM 88240

FAX TRANSMISSION COVER SHEET

Date: February 3, 1998

Company: NMOCD

Attention: Mr. Rand Carroll / Ms. Martyne Kieling

Fax Number: (505) 827-8177

Sender: M. Y. Merchant

YOU SHOULD RECEIVE 4 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (505) 397-3596.

MESSAGE:

PRODUCING OIL AND GAS FOR AMERICA SINCE 1961

PENROC

Via Fax: 505/827-8177

February 3, 1998

Mr. Rand Carroll
NMOCD-Santa Fe
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Abandoned Pit
NW/4, Section 5, Township 17 South, Range 33 East
Lea County, New Mexico

Dear Rand:

This letter is in response to your letter dated January 30, 1998. I have reviewed your letter after my return from Houston yesterday.

Attached you will find a closure and remedial plan prepared by CSI of Hobbs. I had filed a similar plan under the NMOCD pit closure guidelines and Mr. Wayne Price of Hobbs, NMOCD, approved a C-103 on September 26, 1997.

I have noted your schedule for February 4, 1998. I am leaving the same day for Houston and onwards to Middle East on a previously scheduled trip. I will tentatively return after the 25th of February. Mr.Allen Hodges of CSI will witness the sample collection by NMOCD at this pit. **Please note NMOCD representative can be any one except Mr. Wayne Price.** I make this request because of well-documented discriminatory and un-ethical actions by Mr. Wayne Price against my firm and me since 1993.

Also, please note the law firm of Mr. William F. Carr is not representing Penroc or me at this time. I plan to resolve these problems in an amicable way; however, if legal representation is needed in the future, I will retain the same.

Please contact me at the above phone or fax for any comments or questions you may have. Thank you for your attention to this matter.

Sincerely,

M. Y. (Merch) Merchant
President

CC: All Interested Parties

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone
(505) 393-7051 FAX

Engineering and
Construction
Services

Constructive Solutions, Inc.

Building a Better Environment

February 2,1998

Mr. M.Y. Merchant

Penroc Oil Corporation
PO Box 5970
Hobbs, New Mexico 88241

RE: Work Plan for Disposal Pit located NW/4, Sec. 5, T17S, R33E of Lea County, NM

Mr. Merchant

Constructive Solutions, Inc. (CSI) is pleased to present this work plan to close the pit at the above listed site. The work plan was developed to close the pit in accordance with New Mexico Oil Conservation Division (NMOCD) Unlined Surface Impoundment Closure Guides as specified in the NMOCD's guidelines dated February, 1993. It is our understanding that any potential contamination of the pit was the result of activities associated with the operation of an oil and gas company.

The potential contaminates of concern are expected to be mid level concentrations of petroleum hydrocarbons, produced water and possibly metals that may have been discharged into the pits and absorbed by the surrounding soils.

The NMOCD regulates disposal of non-domestic wastes resulting from the production of the oil and gas industry. In addition, the NMOCD administers all Water Quality Act regulations pertaining to surface and ground water except sewage for the oil field service industry. This authority includes the disposition of non-domestic, non-hazardous wastes at oil field facilities.

Scope of Work

1. Excavate the pit and any near surface soils containing any observed potential contamination. Initial excavation operations will consist of removing the soils to a depth to where the TPH levels have dropped below 100 ppm to minimize the volume of waste generated (estimated waste volume is approximately 233 cubic yards based on a pit that is 25 x 25 x 10). The excavated soils will be stockpiled at an on-site location pending waste characterization and disposal. The soils will be staged on and covered with plastic to prevent the potential spread of contamination.

2. Collect five (5) soil samples of the excavated area for Total Petroleum Hydrocarbons (TPH) analysis to verify that the remaining surface soils at the site are below NMOCD clean up guidelines for TPH levels for spills/releases. Should the TPH concentrations in the remaining soils exceed NMOCD levels, an additional excavation layer of soil will be removed and stockpiled.

3. Once TPH levels are below the NMOCD clean up guidelines, final samples will be taken to be analyzed at a third party lab for TPH, BTEX and Chlorides CL before backfilling operations begin.

Constructive Solutions, Inc.

4 Collect a composite sample of the excavated material for laboratory analysis. The purpose of the composite sample is to characterize the excavated material for waste classification in accordance with RCRA Subtitle C regulations. The sample will be analyzed for TPH, volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), eight RCRA metals, and solid waste characteristics (ignitability, corrositivity, reactivity, and toxicity).

5 Should the analytical results from the sample of excavated material record levels of individual compounds that exceed EPA maximum concentration levels (MCL) for toxicity characteristics, a sampling plan to verify the soils remaining in the excavated area are below MCL levels will be developed. This plan will include the collection of a minimum of two (2) soil samples from randomly selected locations with in the excavated area. In order to minimize costs, the samples will be analyzed for only compounds that exceeded MCL levels.

6 Should the analytical results record individual compound concentrations below EPA listed MCL, the tested materials will be considered a non-hazardous waste generated at an oil field facility. The materials will be transported to a NMOCD permitted commercial waste disposal facility. Each load of material will be accompanied by a manifest in accordance with Section 711 of the New Mexico Solid Waste Management Regulations.

7 Once excavation operations have been completed and the analysis from the lab meets the NMOCD levels for closure, the site will be backfilled back to grade and restored back to it's natural state.

Should excavation operations identify any additional concerns outside the scope of work, an approval from a representative of Penroc will be obtained prior to performing any additional services

CSI appreciates this opportunity to provide you with our professional services. Please feel free to call us at any time for further information or questions you may have with regards to our work plan.

Respectfully

Allen Hodge, REM
Hobbs Operations Manager
Constructive Solutions, Inc.

MEMORANDUM OF CONVERSATION

✓ TELEPHONE ___ PERSONAL TIME 10:50 DATE 1-30-97

ORIGINATTING PARTY ~~Orig~~ Martyne Kieling

OTHER PARTIES & Secretary - For PenRoc

DISCUSSION

Left Message That we OCD were Available if Mr. Merchant Had Any Questions Concerning the Faxed letter. Secretary Asked If She Should Notify Mr. Merchant Imediatly. I told Her that would be in Their Best intrests Because of the time Limits Listed in the Letter. She Said that She would Page Mr Penroc that he was out of town untill Monday Feb 2, 1998. I Left My Name & Number Should He wish to TALK about Any technical Aspects of the letter.

CONCLUSIONS

~~CHRIS EUSTICE~~ Martyne J Kiely

January 28, 1998

Marc:

When you are at AEN this afternoon could you order a sample kit for Wayne Price to sample the Penroc pit.

Tell the lab that we will be needing **2 week turn around** and that this **may end up in court**

Send sample kit for one composite **soil/solid** sample for EPA SW 846 methods:

TCLP Metals
TCLP Volatiles
TCLP Semi Volatiles base neutral acids without Pest and Herb
RCI Reactivity / Corrosivity / Ignitability

To Post Office

Oil Conservation Division
Hobbs District Office
P.O. Box 1980
Hobbs, New Mexico 88240
Attn: Wayne Price

FEDX Deliveries

Oil Conservation Division
Hobbs District Office
1000 West Broadway
Hobbs, New Mexico 88240
Attn: Wayne Price

Thanks
Martyne

Please Deliver This Fax To:

Mr. M. Y. Merchant

(505) 393-7051

From:

Martyne Kieling

Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505
(505) 827-7131 Office
(505) 827-8177 Fax

Date: 1-30-98

Pages: 1 of 3

Subject: Pentroc Pit Remediation

(If you have trouble receiving this fax, please call the phone number above.)

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

January 30, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-385

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: Unauthorized Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) received Penroc Oil Corporation's (Penroc) letter and data packet dated December 26, 1997 concerning the samples taken at the above-referenced waste disposal pits. Penroc's response to the OCD November 20, 1997 letter is deficient for a number of reasons:

1. Penroc failed to respond by the required date. The response was due December 1, 1997. The OCD was willing to grant a reasonable extension (after Penroc contacted the OCD to say it could not get lab results back by December 1) if Penroc would commit to a date certain by which it could get the lab results to the OCD. Penroc did not do this.

2. The OCD was not notified prior to sampling nor was there an OCD representative present to witness the sampling of pit contents. The OCD cannot therefor be assured that proper samples were taken from the pits.

3. Penroc still has not submitted a pit closure plan.

To assure a proper sample is taken, the OCD will take an independent sample from the Penroc unlined pits at the above referenced location on February 4, 1998 at 1:00 PM. The OCD requests that a representative for Penroc be present during the sampling of the pits and is welcome to split samples with the OCD.

The OCD has also grants Penroc an extension to submit a detailed closure plan as to how the pits will be remediated. The pit closure plan is due to the Santa Fe OCD office by 5:00 PM, February 16, 1998.

If Penroc fails to submit a pit closure plan by 5:00 PM, February 16, 1998, a show cause hearing will be filed for March 19, 1998, requiring Penroc Oil Corporation to appear and show cause why it should not be ordered to close these pits in a manner approved by the OCD and why it should not also be assessed civil penalties for failure to do so.

If you have any questions, please feel free to call me at (505) 827-8156.

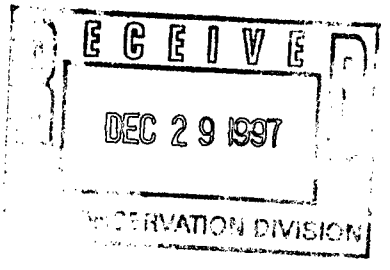
Sincerely,

Rand Carroll
Legal Counsel

xc: Hobbs OCD Office
Jami Bailey, State Land Office
William F. Carr--Campbell, Carr, Berge & Sheridan
Ken Marsh, CRI

PENROC

December 26, 1997



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

Re: Analysis of Oil Field Waste
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Ms. Kieling:

As per request from the New Mexico Oil Conservation Division, PENROC OIL CORPORATION hereby submits an analysis of the waste done by Cardinal Laboratories. The analysis shows this is non-hazardous material. The analysis was performed by Cardinal on request by Controlled Recovery Inc. as they are a party to this on going saga.

Please approve the attachment and allow PENROC OIL CORPORATION to proceed with the excavation of the remainder of the dirt at this location. Your cooperation in this matter will be greatly appreciated.

Sincerely,

M. Y. (Merch) Merchant
President

CC: Mr. Ken Marsh
Harcor
Unocal
Maralo
Great Western & Others
NMOCD-Hobbs Office

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone
(505) 393-7051 FAX

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: KEN MARSH
P.O. BOX 369
HOBBS, NM 88241
FAX TO: 505-393-3615

Receiving Date: 10/31/97
Reporting Date: 11/07/97
Project Number: NOT GIVEN
Project Name: PENROC OIL CORP.
Project Location: NEMU#1 UNIT #1

Sampling Date: 10/31/97
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	11/07/97	11/06/97	11/07/97	11/06/97	11/06/97	11/06/97	11/04/97	11/07/97
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3298-1 PIT COMPOSITE	<1	<1	<10	<0.1	<1	<1	<0.02	<0.1
Quality Control	0.199	4.96	9.90	1.989	2.51	3.98	0.0099	0.050
True Value QC	0.200	5.00	10.00	2.000	2.50	4.00	0.0100	0.050
% Recovery	100	99	99	99	100	100	99	100
Relative Standard Deviation	1.9	0.3	9.3	0.2	0.3	0.7	13.2	4.0
METHODS: EPA 1311, 600/4-91/0	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

11/07/97
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: KEN MARSH
P.O. BOX 369
HOBBS, NM 88241
FAX TO: 505-393-3615

Receiving Date: 10/31/97
Reporting Date: 11/04/97
Project Number: NOT GIVEN
Project Name: PENROC OIL CORP.
Project Location: NEMU#1 UNIT #1
Lab Number: H3298-1
Sample ID: PIT COMPOSITE

Analysis Date: 11/04/97
Sampling Date: 10/31/97
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3298-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.043	43	0.100
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.065	65	0.100
o-Cresol	200	<0.020	<0.005	0.080	80	0.100
m, p-Cresol	200	<0.020	<0.005	0.142	71	0.200
Hexachloroethane	3.00	<0.020	<0.005	0.067	67	0.100
Nitrobenzene	2.00	<0.020	<0.005	0.091	91	0.100
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.078	78	0.100
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.102	102	0.100
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.096	96	0.100
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.096	96	0.100
Hexachlorobenzene	0.130	<0.020	<0.005	0.108	108	0.100
Pentachlorophenol	100	<0.020	<0.005	0.104	104	0.100

	% RECOVERY
Fluorophenol	52
Phenol-d5	47
Nitrobenzene-d5	94
2-Fluorobiphenyl	98
2,4,6-Tribromophenol	98
Terphenyl-d14	113

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.

11/4/97
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: KEN MARSH
P.O. BOX 369
HOBBS, NM 88241
FAX TO: 505-393-3615

Receiving Date: 10/31/97
Reporting Date: 11/03/97
Project Number: NOT GIVEN
Project Name: PENROC OIL CORP.
Project Location: NEMU#1 UNIT #1
Lab Number: H3298-1
Sample ID: PIT COMPOSITE

Analysis Date: 11/03/97
Sampling Date: 10/31/97
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3298-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.083	83	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.099	99	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.082	82	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.107	107	0.100
Benzene	0.5	0.048	<0.005	0.104	104	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.107	107	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.108	108	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.103	103	0.100
Chlorobenzene	100	<0.005	<0.005	0.111	111	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.111	111	0.100

	% RECOVERY
Dibromofluoromethane	89
Toluene-d8	88
Bromofluorobenzene	87

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cooke, PH. D.

11/3/97
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: KEN MARSH
P.O. BOX 369
HOBBS, NM 88241
FAX TO: 505-393-3615

Receiving Date: 10/31/97
Reporting Date: 11/03/97
Project Number: NOT GIVEN
Project Name: PENROC OIL CORP.
Project Location: NEMU#1 UNIT #1

Sampling Date: 10/31/97
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		11/03/97	11/03/97	11/03/97	11/03/97
H3298-1	PIT COMPOSITE	<50	<50	7.02	Nonflammable
Quality Control		NR	NR	7.00	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	100	NR
Relative Percent Difference		NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

11/3/97
Date

CARDINAL LABORATORIES
PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H3298

Page ___ of ___

Company Name: CRI	BILL TO PO #:
Project Manager: Ken Marsh	Company: CRI
Address: P.O. Box 369	Attn: Ken Marsh
City: Hobbs State: NM Zip: 88241	Address: P.O. Box 369
Phone #:	City: Hobbs,
Fax #:	State: NM Zip: 88241
Project #:	Phone #:
Project Name: Penroc Oil Corp	Fax #:
Project Location: NEMU #1 Unit #1	

LAB I.D. #	Sample I.D. (5-17S-33E, Lease E 881)	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL – Bio	OIL	SLUDGE	OTHER:	PRESERVATIVE: ACID:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	ANALYSIS REQUEST: TCLP - Complete	Metals, SW846 - 8260, 8270	RCI						
H3298-1	Pit Composite	C	1			✓							10/31/97	2:40P									

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

Sampler Relinquished: [signature]	Date: 10/31/97 Time: 2:40P	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: Time:	Received By: (Lab Staff) [signature]	Fax Results: ☐ Yes ☐ No
Delivered By: (Circle One) UPS - Fed Ex - Bus - Other:		Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No — CHECKED BY: (Initials)	REMARKS:

PENROC

Via Fax: (505) 827-8177

November 14, 1997

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

Re: Letter Dated October 30, 1997
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Ms. Kieling:

Thank you for your faxed letter dated October 30, 1997. After reviewing the same, we are of the opinion that the old pit containing oil field waste is exempt material and hereby request that your office permit us to complete the job as approved by the Hobbs NMOCD office on commission form C-103 on September 26, 1997. We are also requesting the Department consider a time extension to resolve this matter before we submit any plans.

This is not a **new** matter and as I informed you earlier, Penroc has **never** used this pit. It was brought to our attention by the Hobbs NMOCD in late 1993. Several conversations with and two letters to the Hobbs NMOCD in 1994 (copies of which have been furnished to you previously) did not prompt any one in the NMOCD to approve our request to close the pit.

We also fail to understand why the Department is behaving in the present manner when after over four years of requesting to take care of the pit (which was not ours and we never used it), Wayne Price of Hobbs District approved the C-103 and told us "if the abandoned pit can be taken care of as soon as possible, no action will be taken and that he has spoken to some one in Santa Fe".

PENROC OIL CORPORATION is requesting this matter be given immediate attention and a face to face meeting in Hobbs with the Division and District personnel so this matter can be resolved. Your cooperation will be greatly appreciated.

Sincerely,

M. Y. (Merch) Merchant
President

CC: Please see attachment

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone
(505) 393-7051 FAX

Attachment to Letter to NMOCD
Dated November 14, 1997

CC: Mr. Arnold Divine
Mr. Ken Marsh
Mr. Bill LeMay
Senator Steve Pearce
Senator Don Whitaker
Mr. Francis Roth
Unocal
Maralo
Great Western
Mr. Chris Williams
Ms. Jami Bailey

P. S. Please note once again Penroc nor any of its employees ever used this pit, and it is not being used now as indicated in your previous correspondence.

FAX SHEET

This fax comes from the
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505
(505) 827-7133

Please Leliver To: Mr. Stevan Pearce
(505) 392-4579

Date: November 12, 1997

From: Roger Anderson Env. Bureau Chief

Message: Hard Copy to Follow via Mail

1 of 16

If you have any problems receiving this fax, please call the telephone number above.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

November 10, 1997

The Honorable Stevan Pearce
New Mexico State Representative
2009 N. McKinley
Hobbs, New Mexico 88240

Re: Penroc Oil Pit

Dear Representative Pearce:

Mr. Bill LeMay, Director , Oil Conservation Division, has asked me to supply you with examples of oil and gas companies that have been required to perform tests for hazardous constituents on pits they propose or are being required to close. Enclosed are letters sent to an arbitrarily chosen sample . These companies were required to supply the RCRA Toxic Constituent analyses because there were indications that the pits had received wastes that were not exempt. Also enclosed are copies of the OCD requirement letters to Penroc Oil Co. and photographs of the pit in question.

If you have any questions, please call me at (505) 827-7152.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

xc: Chris Williams, OCD Hobbs

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

September 30, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-223

Mr. Ricky D. Cosby
El Paso Field Services
P.O. Box 4990
Farmington, New Mexico 87499

RE: FINAL SAN JUAN BASIN PIT CLOSURE REPORTS

Dear Mr. Cosby:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Field Services (EPFS) April 10, 1997 "EL PASO FIELD SERVICES PIT PROJECT". This document contains the results of the closure of 719 unlined oil and gas production pits in the San Juan Basin.

The OCD's review of the above referenced documents is addressed below:

A. The pit closure/soil remediation activities conducted at the sites listed on Attachment A are **approved**.

Please be advised that OCD approval does not relieve EPFS of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. In addition, OCD approval does not relieve EPFS of responsibility for compliance with any other federal, state or local laws and/or regulations.

B. The closure reports for the sites listed below show that the pits were used for the disposal of compressor station wastes. The reports appear to indicate that non-exempt RCRA wastes were placed in these pits. Subsequently, the OCD cannot issue final closure approval at this time and approval of closure actions at these sites is **denied**. The OCD requires that EPFS analyze the soils from each of these pit sites for RCRA hazardous waste characteristics. The OCD will reconsider issuing final closure approval when the reports are resubmitted with the results of the RCRA hazardous characteristics analyses.

1. Bisti 1 Compressor (Compressor drain pit) Unit N, Sec. 29, T25N, R10W.
2. Bisti Compressor #2, Pit #1(Waste pit) Unit I, Sec. 13, T25N, R12W.
3. Bisti Compressor #2, Pit#2 (Waste pit) Unit I, Sec. 13, T25N, R12W.

C. The closure report for the site listed below shows that the pit is located in a Farmington, New Mexico residential housing subdivision and adjacent to a subdivision park. Due to the potential for public impacts approval of the closure actions at these sites is **denied**. The OCD requires that EPFS remediate the soils at this pit site to the OCD's high risk recommended remediation level (10 ppm benzene, 50 ppm BTEX and 100 ppm TPH) and resubmit a closure report for this site upon completion.

1. Southern Union #1 (Dehy pit) Unit B, Sec. 03, T29N, R13W.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Bill Liess, BLM Farmington District Office
David Deardorff, New Mexico State Land Office
Kurt Sandoval, Jicarilla Apache Environmental Protection Office
Charmaine Tso, Navajo Nation EPA

P 410 431 223

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PS Form **3800**, April 1995

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

January 13, 1993

BRUCE KING
GOVERNOR

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

CERTIFIED MAIL
RETURN RECEIPT NO. P667-242-149

Mr. Clark Evans
Environmental Spill Control, Inc.
P.O. Box 5890
Hobbs, New Mexico 88241

RE: Tank Bottom Disposal
Greenhill Petroleum Corp.

Dear Mr. Evans:

The Oil Conservation Division (OCD) has evaluated your request for the proper disposal of materials from the "duck ponds" and the Walter-Getty pit. In your request you stated the materials were tank bottoms and were exempt from RCRA regulations.

Based on the information and analyses provided, the materials cannot be disposed of without further investigation. The analytical results for lead indicate wastes other than exploration and production exempt wastes may have been placed in the pits. A full TCLP analysis must be run on a representative sample to determine if the materials will be disposed of and the pits closed pursuant to hazardous waste regulations or pursuant to OCD disposal regulations. The representative sample will be obtained pursuant to hazardous waste and EPA SW 846 sampling procedures.

For information on hazardous waste regulations and requirements on hazardous waste disposal please contact Mr. Ed Horst, Hazardous Waste Program Manager, New Mexico Environment Department, at (505) 827-4308.

If you have any questions please do not hesitate to contact me at (505) 827-5812.

Sincerely:

Roger C. Anderson
Environmental Bureau Chief

xc: Rich Myers - Greenhill Petroleum
Ed Horst - NMED Hazardous Waste
Jerry Sexton - OCD Hobbs

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 29, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-351

Mr. Robert E. McKnight
Northland Operating Company
3500 Oak Lawn
Suite 380
Dallas, TX 75219-4398

RE: NOTICE OF VIOLATION
Unauthorized Waste Disposal Pits
Northland Operating Company
SE/4, NW/4, Section 30, Township 13, Range 32 East, NMPM
Lea County, New Mexico

Dear Mr. McKnight:

On September 22, 1997 The New Mexico Oil Conservation Division (OCD), identified two unauthorized, waste disposal pits one unlined and the other with a badly damaged fiberglass liner located in the SE/4, NW/4, Section 30, Township 13, Range 32 East, NMPM, Lea County, New Mexico (see attached map). These unauthorized pits are owned by Northland Operating Company (Northland).

OCD personnel performed an onsite inspection of the facility on September 22 and 25, 1997 and noted the following:

1. These pits are owned by Northland (see photo 1) and are being utilized on land that according to county records is New Mexico State Trust Land;

2. These pits are accepting oilfield waste (see photos 6, 7 and 8);

3. One pit containing BS&W is unlined and contains buckets causing the waste to be classified as non-exempt (see photo 6);

4. One pit has a fiberglass liner that contains numerous cracks and holes (see photos 7 and 8);

5. There is no leak detection system below either pit;

6. These pits were not screened or netted (see photos 6, 7 and 8);

7. There was evidence of spills form the tank battery and pit area having reached the fresh water playa (see photos 3, 4 and 5);

8. There was evidence of numerous spills, leaks and overflows from the tank battery, piping, valves, and pumps (see photo 2, 9, 10, 11, 12, 13, 14, 15, and 16);

9. There is no secondary containment around the tank battery (see photo 1, 2, 4, 6, 7, 9, 10, 11, 14 and 16) to protect the nearby fresh water playa from leaks, spills, and storm water runoff;

10. All of the pumps have leaked and lack drip pans to catch spills and leaks (see photos 9, 12 and 13);

11. Buckets containing waste oil were stored directly on the ground instead of on impermeable pad and curb type containment;

12. The sump located at the valve has overflowed or leaked (see photo 16).

Surface waste management facilities must be permitted pursuant to Rule 711 (as amended 1-1-96). In addition, pursuant to the OCD Order R-8952, all tanks exceeding 16 feet in diameter and all exposed pits and ponds shall be screened, netted or covered unless rendered non-hazardous to migratory birds. Order R-3221, as amended, prohibits the disposal of water produced in conjunction with the production of oil and gas in unlined pits or ponds where such disposal may impact fresh water supplies of the state of New Mexico. Therefore, all discharges into the unauthorized, unlined pits or pits with damaged liners must cease.

The OCD hearby requires Northland Operating Company to submit the following information: 1) the names and addresses of all waste generators who are utilizing the pits; 2) the names and addresses of all waste transporters; 3) the location of all waste generation (exact well locations); and 4) the total volume of waste from each location that has gone into the unauthorized pits.

In addition, Northland Operating Company must either permit the facility as a waste management facility or close the pits. Regardless of whether the facility is to be permitted or closed, Northland must submit a closure plan to the Santa Fe OCD office and a copy to the Hobbs District office. Included in the closure plan must be a plan for determining the nature and extent of contamination that has left the pits, how far the contamination has migrated and whether the fresh water playa has been impacted. Northland Operating Company is instructed by the OCD not to remove any waste from the unlined pit identified as photo 6 in this NOV until the waste has been tested for RCRA

Hazardous Characteristic according to 40 CFR 261. For your use please find enclosed a copy of the Order amending Rule 711, a form C-137 and OCD's pit closure guidelines. **A response is required by Northland Oil Corporation to these deficiencies by November 12, 1997.**

Failure to respond to this notice of violation by November 12, 1997 may result in a show cause hearing against Northland, requiring Northland to appear and show cause why it should not be ordered to close these pits and why it should not also be assessed civil penalties.

In addition to these violations Northland Operating Company has in the past failed to notify the OCD of pipeline ruptures and leaks. Pursuant to the New Mexico Water Quality Control Commission Regulations and to the OCD Rule 116 a release of any volume which may with reasonable probability be detrimental to water or cause an exceedance of the standards in Rule 19 is a major release and must be reported. A release shall be reported verbally within twenty-four (24) hours of discovery to the Division district office and to the Division's Environmental Bureau Chief. The verbal notification shall provide the information required on the Division Form C-141. In addition, a written notification shall follow within fifteen (15) days to the Division district office and to the Division's Environmental Bureau Chief. Repeated violations of these regulations may result in civil penalties

If you require any further information concerning permitting/closure procedures please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments- location map, photos, Order R-10411-B (Rule 711), Form C-137, pit closure guidelines, Order R-10766 (Rule 116), and Order R-10767-A (Rule 19).

xc:

Hobbs OCD Office
Jami Bailey, State Land Office
Ed Morney, Northland, P.O. Box 119, Maljamar, NM 88264

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

July 23, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-316

Mr. Jimmie T. Cooper
P.O. Box 55
Monument, NM 88265

RE: Waste Disposal Pit
Located 30 feet west of the highway ride-of-way in the
NE/4 SE/4 of Section 8, Township 20 South, Range 37 East, NMPM
Lea County, New Mexico

Dear Mr. Cooper:

On June 30, 1997 The New Mexico Oil Conservation Division (OCD), identified an unauthorized, unlined waste disposal pit located approximately 30 feet west of the Monument highway ride-of-way in the NE/4 SE/4 of Section 8, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. A location map is attached.

OCD personnel performed an onsite inspection of the facility and noted the following: 1) An unauthorized, unlined pit is being utilized on land that according to county records is owned by Jimmie T. Cooper; 2) The unauthorized, unlined pit is accepting oilfield waste; 3) The pit was observed to have trash, debris, and crude oil contained within the berms (see photos 1, 2, and 3); 4) The pit was not screened or netted; and 5) The perimeter was not fenced.

Pursuant to OCD rules and regulations, facilities that manage waste in unlined pits must be permitted pursuant to 19 NMAC 15.I.711 (as amended 1-1-96). **Therefor all discharges into the unauthorized pit must cease until such time the OCD can ascertain the pit status.**

The OCD is requiring the landowner, Jimmie T. Cooper, to submit the following information: 1) The names and addresses of who is utilizing the pit; 2)The names and addresses of all waste generators; 3) The names and addresses of all waste transporters; 4) The location of all waste generation (exact well locations); and 5) The total volume of waste from each location that has gone into the unauthorized pit. A response is required by Jimmie T. Cooper to these deficiencies by August 25, 1997.

Upon OCD pit status determination the owner/operator of the pit must either permit or close the pit.

For your use please find enclosed a copy of the Order amending Rule 711, a form C-137 and OCD's pit closure guidelines with closure form.

If you require any further information concerning permitting/closure procedures please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

attachments- map, pictures, pit closure guidelines and form, Order R-10411-B, and C-137 form

xc: Hobbs OCD Office

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

September 24, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-976

Mr. Duane Winkler
Mallon Oil Company
P.O. Box 3256
Carlsbad, New Mexico 88220

RE: Discharge Plan GW-132 Renewal
Gavilan Compressor Station
Rio Arriba County, New Mexico

Dear Mr. Winkler:

The ground water discharge plan GW-132, for the Mallon Oil Company (Mallon) Gavilan Compressor Station located in the SW/4 SE/4 of Section 11, Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the original discharge plan as approved December 9, 1992, and the discharge plan renewal application dated August 5, 1997. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The discharge plan was submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is approved pursuant to Section 3109.A. Please note Sections 3109.E and 3109.F., which provide for possible future amendments or modifications of the plan. Please be advised that approval of this plan does not relieve Mallon of liability should operations result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations require "When a facility has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C. Mallon is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.G.4., this plan is for a period of five years. This approval will expire on September 24, 2002, and Mallon should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan renewal application for the Mallon Oil Company Gavilan Compressor Station is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of $50 plus a flat fee of $1,667.50 for compressor stations. The OCD has not received the filing fee or the flat fee. The filing fee is due upon receipt of this approval. The flat fee may be paid in a single payment due on the date of the discharge plan approval or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/mwa
Attachment

xc: OCD Aztec Office

ATTACHMENT TO THE DISCHARGE PLAN GW-132 RENEWAL
MALLON OIL COMPANY
GAVILAN COMPRESSOR STATION
DISCHARGE PLAN APPROVAL CONDITIONS
(September 24, 1997)

1. Payment of Discharge Plan Fees: The $50.00 filing fee shall be submitted upon receipt of the approval. The $1,667.50 required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

2. Mallon Commitments: Mallon will abide by all commitments submitted in the discharge plan application dated August 5, 1997.

3. Waste Disposal: All wastes shall be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous by characteristics may be disposed of at an OCD approved facility upon proper waste characterization per 40 CFR Part 261.

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

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

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

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

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

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to discharge plan renewal. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject fluid other than domestic waste sewage below the surface are considered Class V injection wells under the EPA UIC program. All class V wells will be closed unless, it can be demonstrated that protectable groundwater will not be impacted in the reasonably foreseeable future. Class V wells must be closed through the Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, environment and groundwater as defined by the WQCC, and are cost effective.

12. Housekeeping: All systems designed for spill collection/prevention should be inspected to ensure proper operation and to prevent overtopping or system failure.

13. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Aztec District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

16. Certification: Mallon, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Mallon further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

MALLON OIL COMPANY

by_____
Title

Submit 3 Copies to Appropriate District Office

Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name

1. Type of Well: OIL WELL ☐ GAS WELL ☐ UNLINED PIT CLOSURE OTHER

2. Name of Operator: PENROC OIL CORPORATION

8. Well No.

3. Address of Operator: P.O. Box 5970, HOBBS, NM 88241

9. Pool name or Wildcat

4. Well Location
Unit Letter D : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 5 Township 17 S Range 33E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐		CASING TEST AND CEMENT JOB ☐	
OTHER: Closure plan for un-lined pit. ☐		OTHER: ☐	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

As per NMOCD guidelines for un-lined production pit closure, Penroc Oil Corporation submits following plan:

1. Pick up rain water (accumulated from rain & has 200 ppm chlorides) & dispose in SWD.
2. Dig and pick up slush & oily dirt and haul to Controlled Recovery
3. Catch soil sample and analyze @ Cardinal Lab. per NMOCD guide line.
4. After satisfactory results of soil analysis backfill the pit area with clean native dirt.
5. Once approved by the NMOCD Pit Remediation & Closure Report will be filed.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M. Y. Merchant TITLE Penroc DATE 9/26/97

TYPE OR PRINT NAME M. Y. Merchant TELEPHONE NO. 397-3596

(This space for State Use)

APPROVED BY Wayne Price TITLE ENVR Engr DATE 9/26/97

CONDITIONS OF APPROVAL, IF ANY:

AS PER NMOCD GUIDELINES!

Received
Hobbs
OCD

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 16, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-349

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: NOTICE OF VIOLATION
Unauthorized Waste Disposal Pit
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

On September 22, 1997 the New Mexico Oil Conservation Division (OCD), identified two unauthorized, unlined waste disposal pits located approximately 5 miles east of Maljamar, NM in NW/4, Section 5, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico (see attached map). These pits are owned by Penroc Oil Corporation (Penroc).

OCD personnel performed an onsite inspection of the facility on September 22, 1997 and noted the following:

1) These pits owned by Penroc are being utilized on land that according to county records is New Mexico State Trust Land.
2) These pits are accepting oilfield waste;
3) These pits were observed to have trash including buckets, cans and crude oil contained within the berms (see pictures 1, 2, 3, 4, 7 and 8);
4) These pits were not screened or netted (see pictures, 2, 3 and 8);
5) An open discharge pipe was found extending from one of the pits (see picture 1);
6) Evidence of surface discharges from the pits extended east northeast and southeast from the pits toward the lake (see pictures 2, 3, 4, 5, and 6);
7) The pit area is lacking a sign that identifies the legal location and owner of the facility.

Surface waste management facilities must be permitted pursuant to Rule 711 (as amended 1-1-96). In addition, pursuant to the OCD Order R-8952, all tanks exceeding 16 feet in diameter and all

exposed pits and ponds shall be screened, netted or covered unless rendered non-hazardous to migratory birds. Order R-3221, as amended, prohibits the disposal of water produced in conjunction with the production of oil and gas in unlined pits or ponds where such disposal may impact fresh water supplies of the state of New Mexico. Therefor, all discharges into the unauthorized, unlined pits must cease.

The OCD hearby requires Penroc Oil Corporation to submit the following information: 1) the names and addresses of all waste generators who are utilizing the pits; 2) the names and addresses of all waste transporters; 3) the location of all waste generation (exact well locations); and 4) the total volume of waste from each location that has gone into the unauthorized pits.

In addition, Penroc Oil Corporation must either permit the facility as a waste management facility or close the pits. Regardless of whether the facility is to be permitted or closed, Penroc must submit a closure plan to the Santa Fe OCD office and a copy to the Hobbs District office. Included in the closure plan must be a plan for determining the nature and extent of contamination that has left the pits, how far the contamination has migrated and whether the lake has been impacted. For your use please find enclosed a copy of the Order amending Rule 711, a form C-137 and OCD's pit closure guidelines. **A response is required by Penroc Oil Corporation to these deficiencies by October 29, 1997.**

Failure to respond to this notice of violation by October 29, 1997 may result in a show cause hearing against Penroc, requiring Penroc to appear and show cause why it should not be ordered to close these pits and why it should not also be assessed civil penalties.

If you require any further information concerning permitting/closure procedures please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments- location map, pictures, Order R-10411-B (Rule 711), Form C-137, and pit closure guidelines.

xc: Hobbs OCD Office
Jami Bailey, State Land Office

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 30, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-358

Mr. M.Y. Merchant
Penroc Oil Corporation
P.O. Box 5970
Hobbs, NM 88241

RE: NOTICE OF VIOLATION Clarification
Unauthorized Waste Disposal Pits
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Merchant:

The New Mexico Oil Conservation Division (OCD) would like to clarify a few things that were written in the October 16, 1997 letter to Penroc Oil Corporation. In the October 16, 1997 letter the OCD stated in point three (3) that "**these pits were observed to have trash including buckets, cans and crude oil contained within the berms".**

The presence of the buckets and cans within the pits is cause for the OCD to determine that the waste is non-exempt. Penroc Oil Corporation is instructed not to remove any additional waste from the unlined pits identified in the Notice Of Violation letter dated October 16, 1997, until the waste has been tested for RCRA Hazardous Characteristic according to 40 CFR 261. Analysis of the waste shall include corrosivity, reactivity, ignitability, TCLP metals, TCLP semivolatiles and TCLP volatiles. The OCD Hobbs District office shall be notified 24 hours prior to sampling of the waste material to allow a representative the opportunity to witness the sampling. All closure activities and correspondence regarding this facility shall be coordinated directly through the NMOCD Environmental Bureau in Santa Fe. In addition, Penroc Oil Corporation shall copy the Hobbs District office on all correspondence .

A response by Penroc Oil Corporation to the deficiencies noted in the October 16, 1997 letter was received by the October 29, 1997 deadline. However, OCD requires Penroc Oil Corporation to submit a closure plan to include more detailed information than that submitted to the Hobbs District office on the C-103 Form. The additional information in the closure plan shall include a plan for determining the nature and extent of contamination that has left the pits (both vertically and horizontally), how far the contamination has migrated and whether the lake has been impacted.

Penroc Oil Corporation shall submit this detailed pit closure plan no later than **5:00 pm Santa Fe time on November 14, 1997** and copy the Hobbs District office.

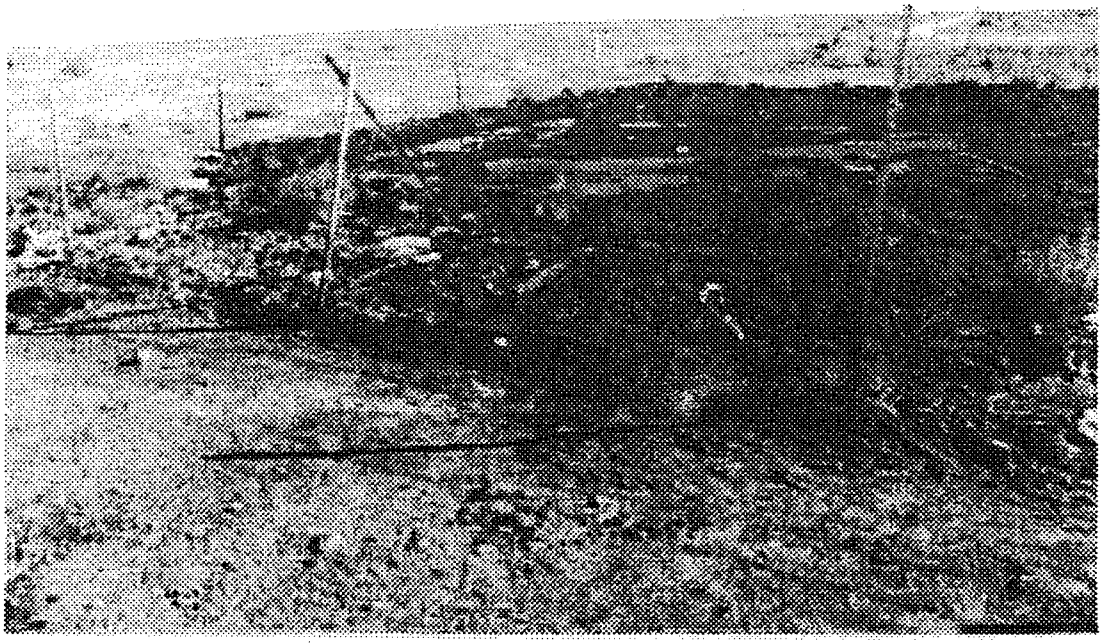
Failure to respond to this notice of violation by November 14, 1997 may result in a show cause hearing against Penroc, requiring Penroc to appear and show cause why it should not be ordered to close these pits and why it should not also be assessed civil penalties.

If you require any further information concerning permitting/closure procedures please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: Hobbs OCD Office
Jami Bailey, State Land Office



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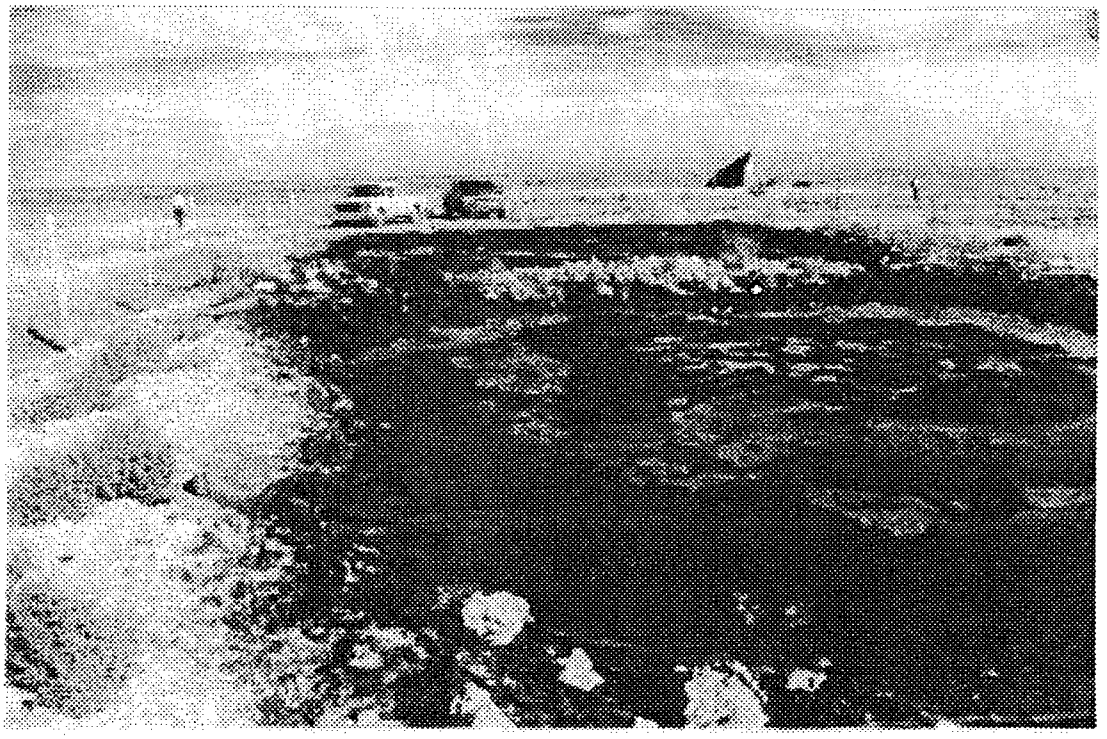

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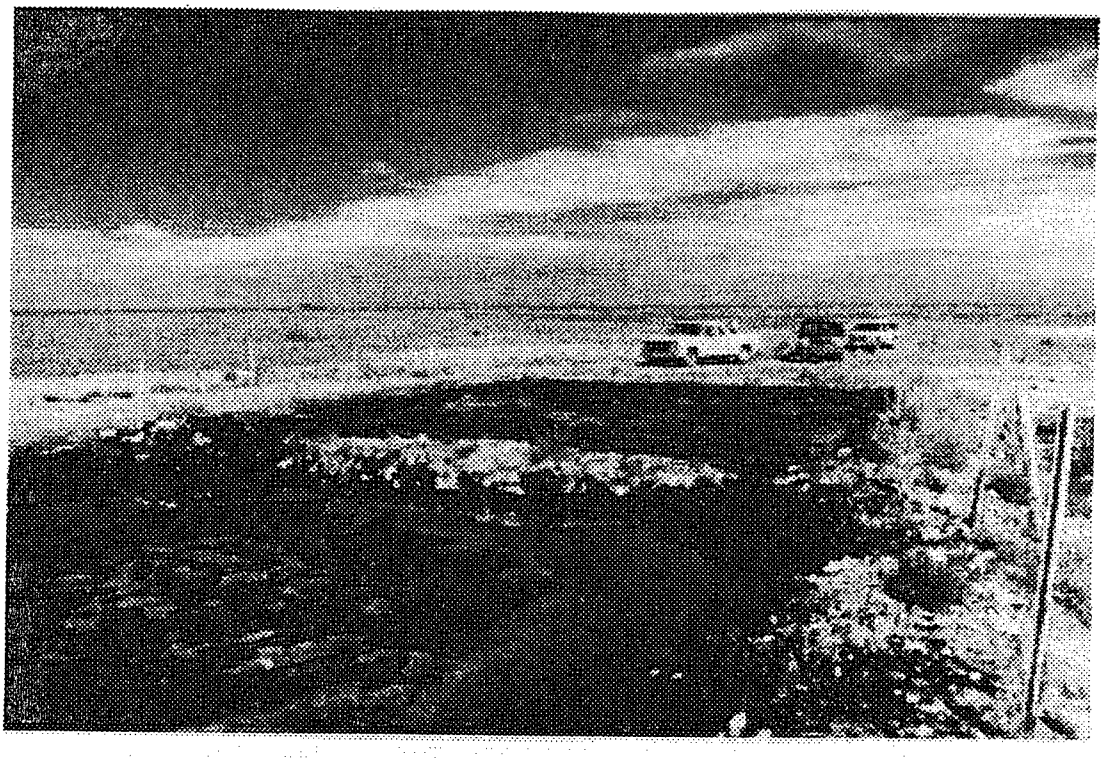

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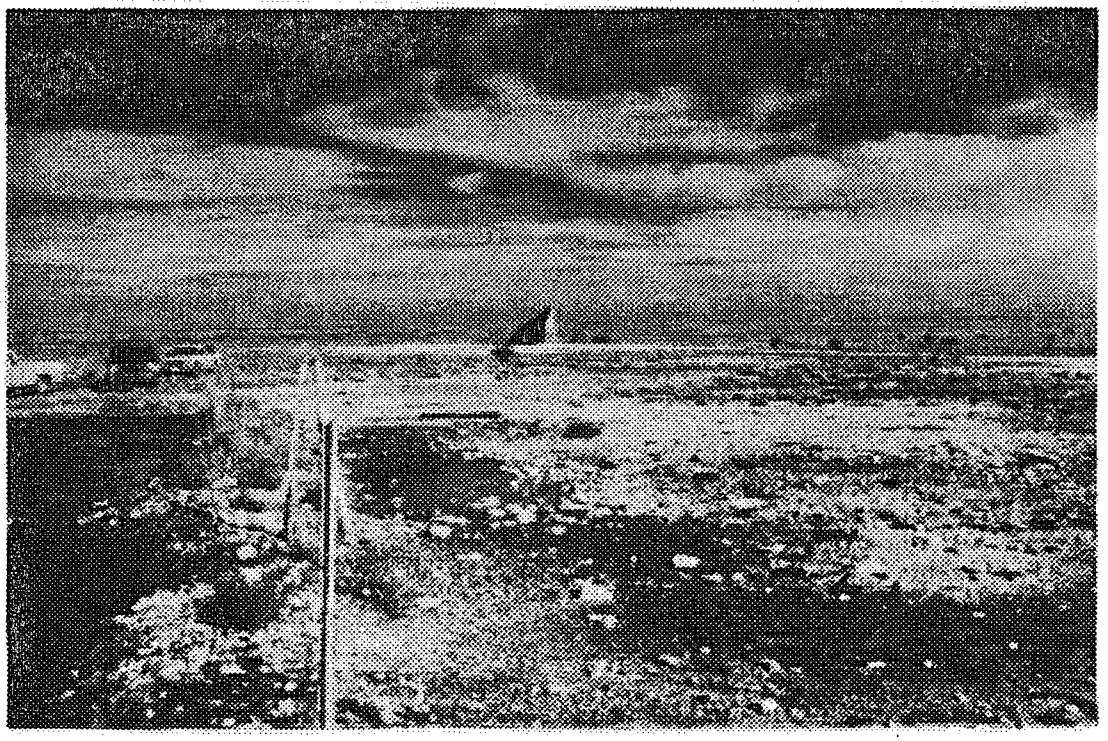

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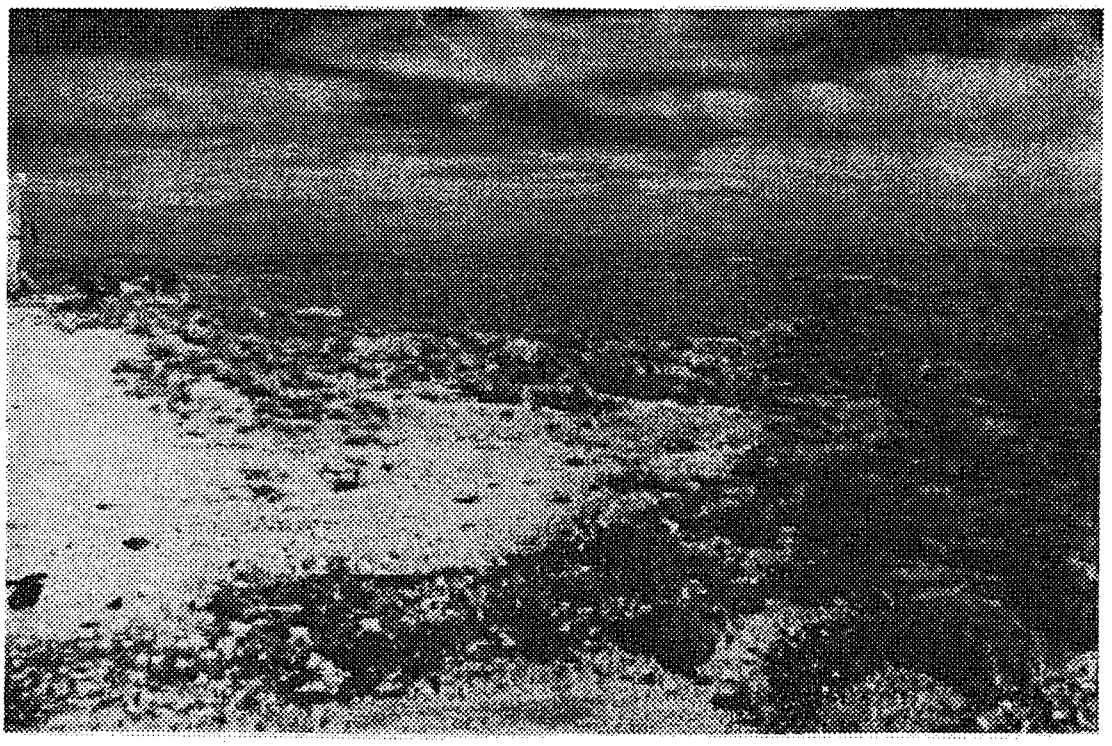
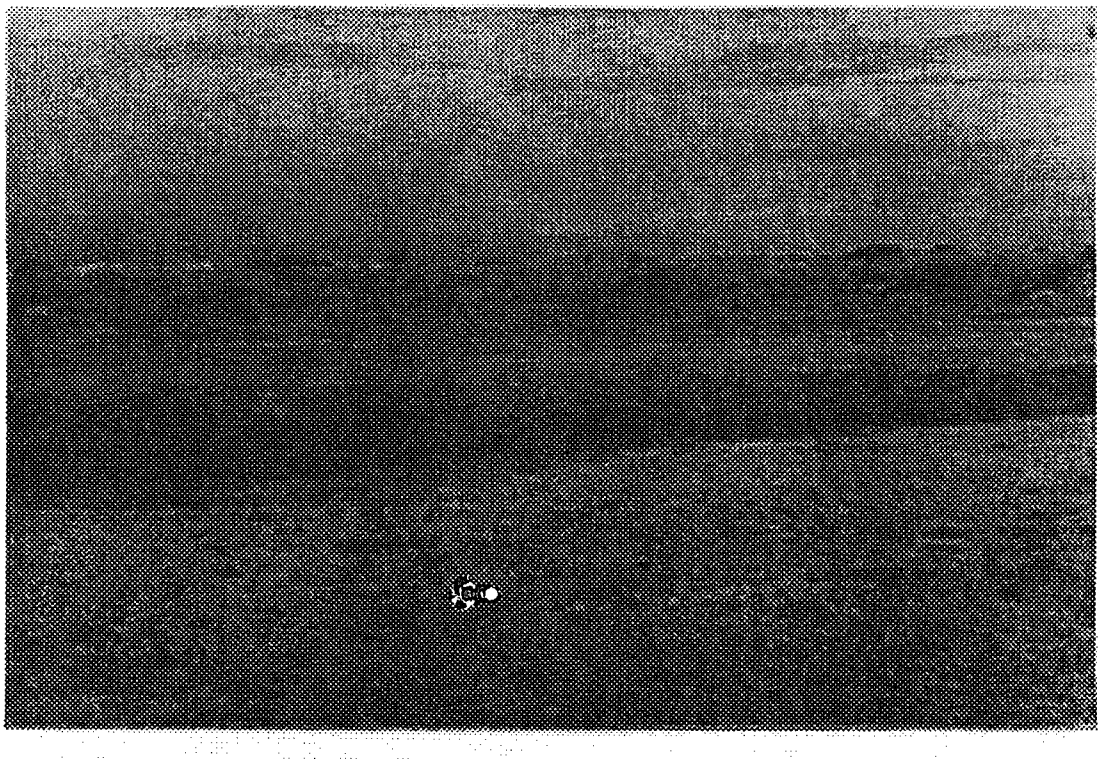


Picture 5 Date 9/22/97

Picture 6 Date 9/22/97



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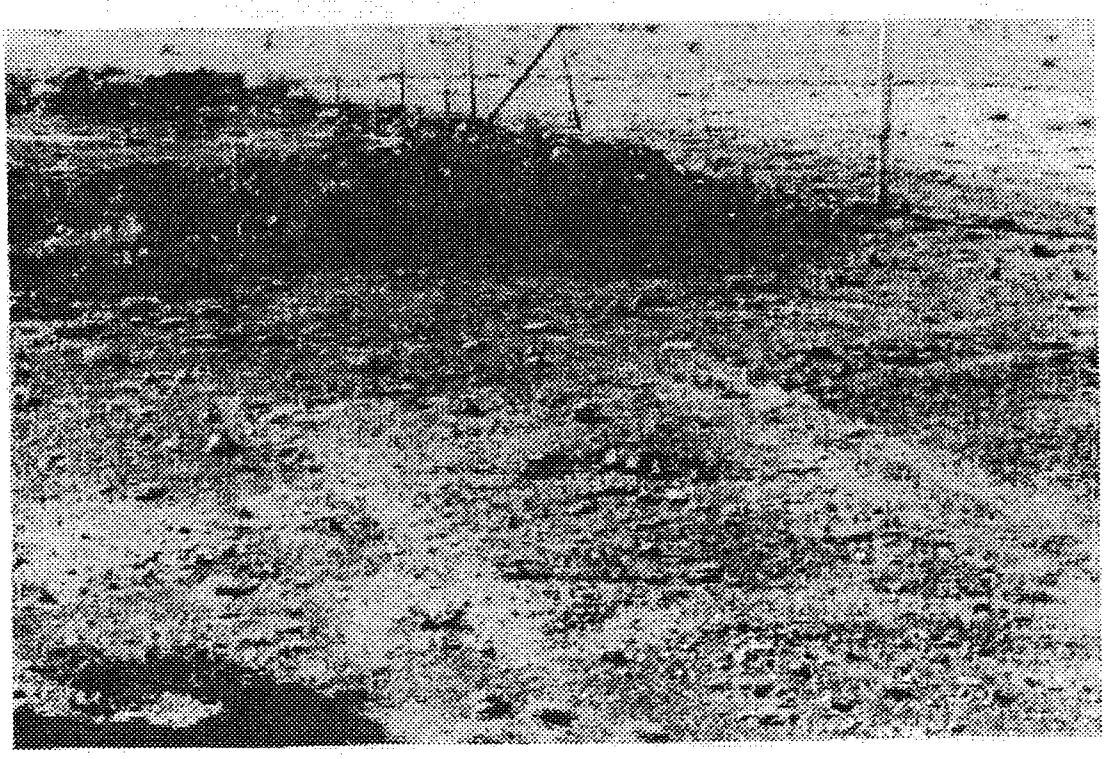

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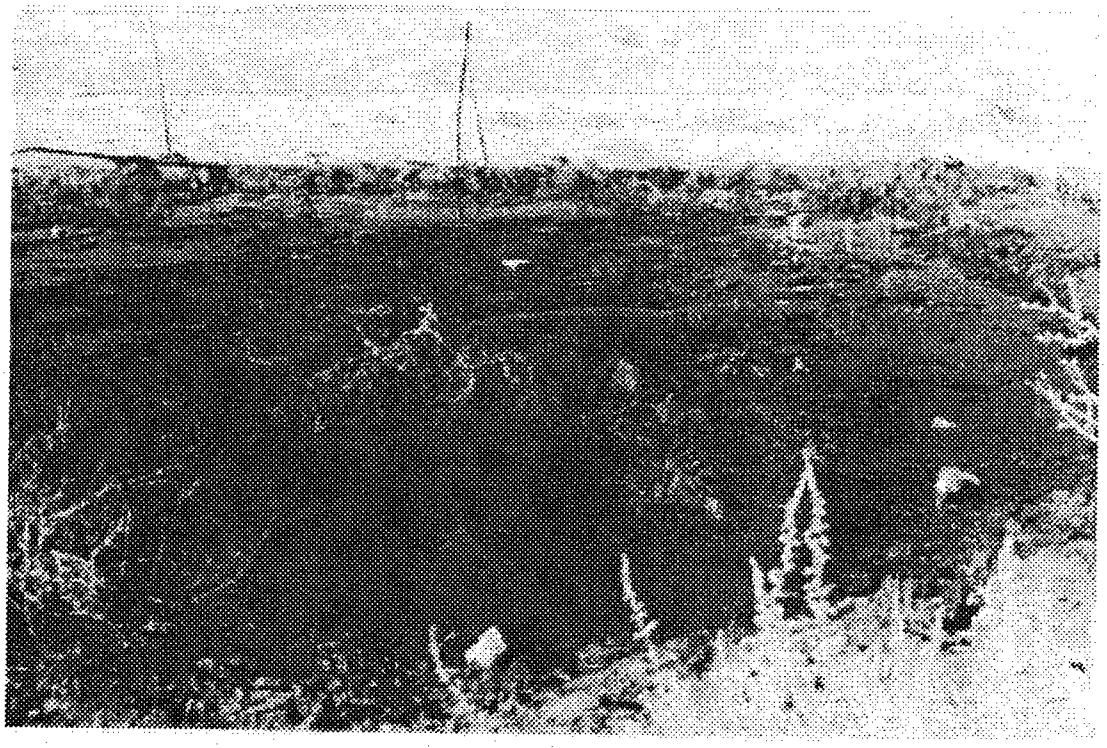
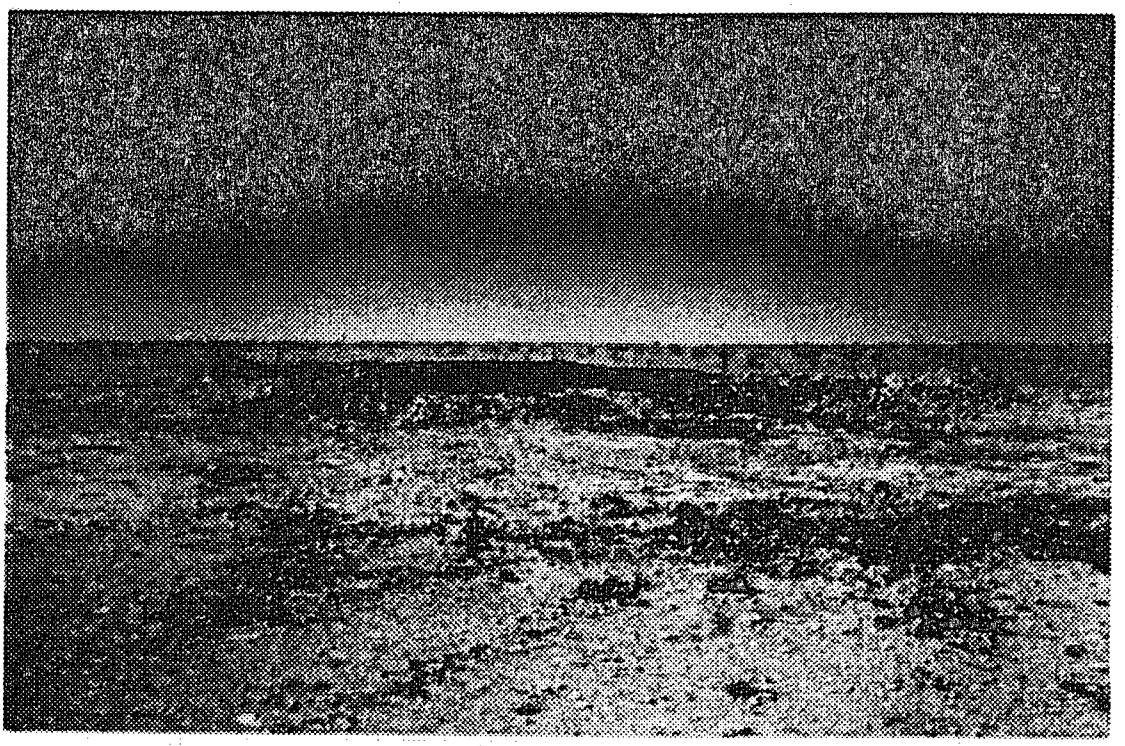


Picture 9 Date 9/22/97

Penroc Oil Corporation Unlined Pits: NW/4, Sec 5, T 17 S, R33 E, NMPM, Lea County, New Mexico



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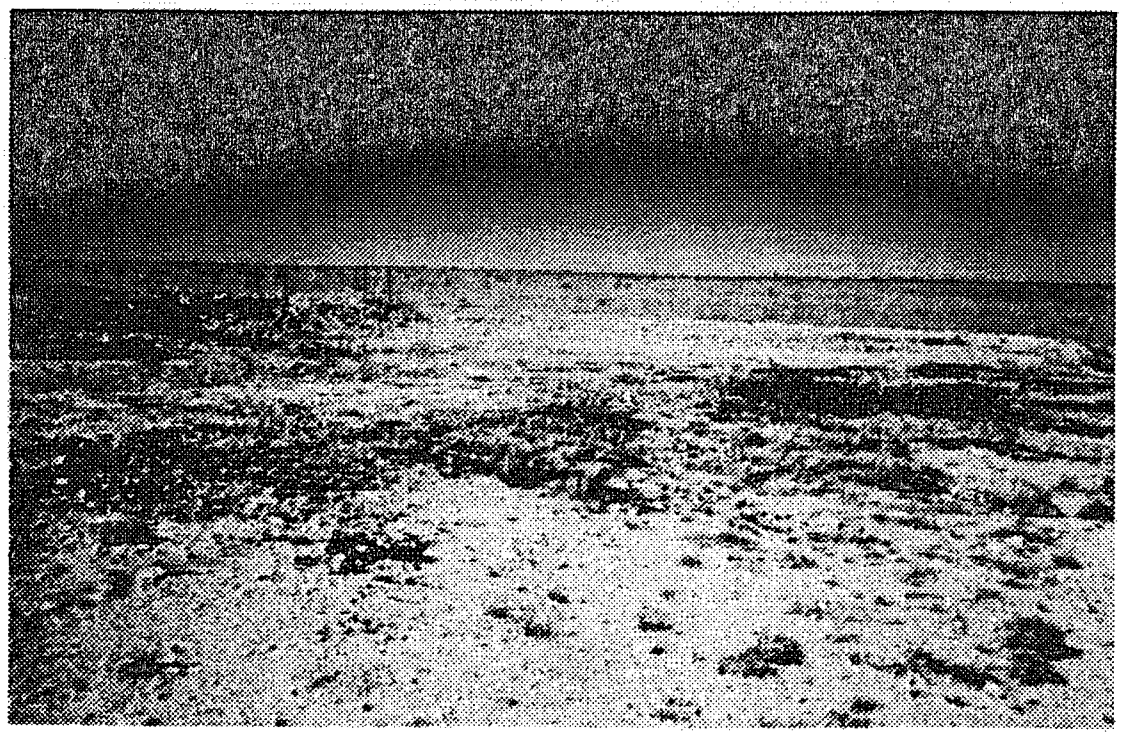

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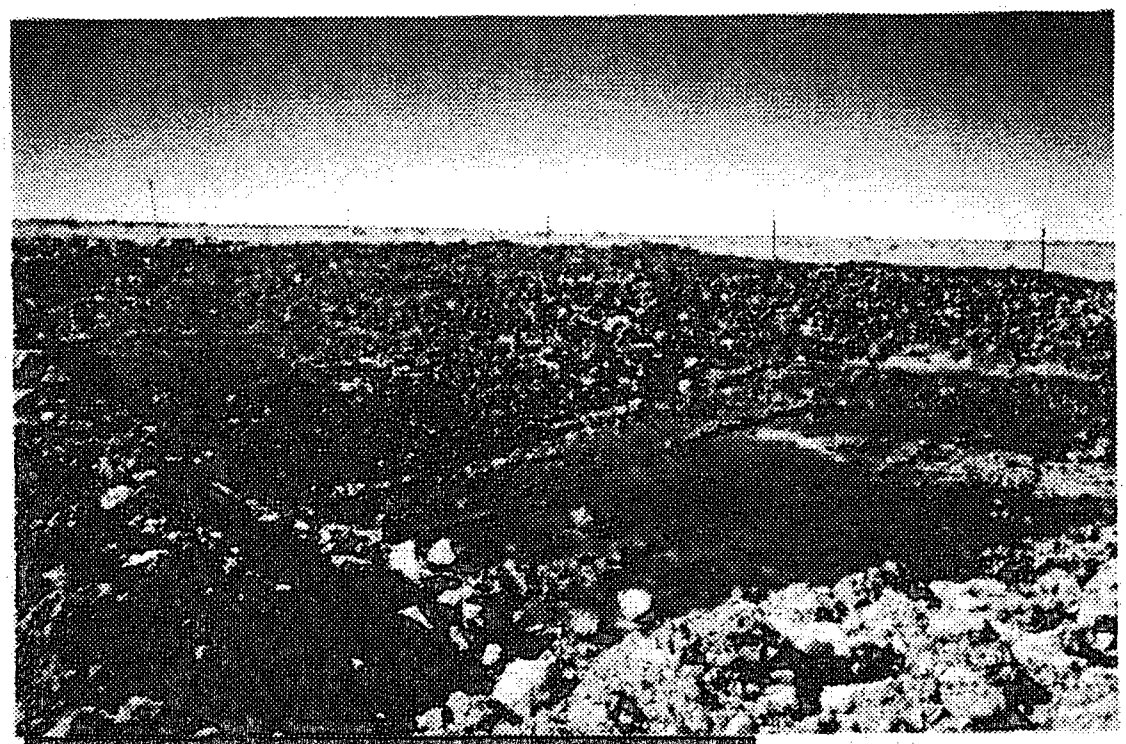

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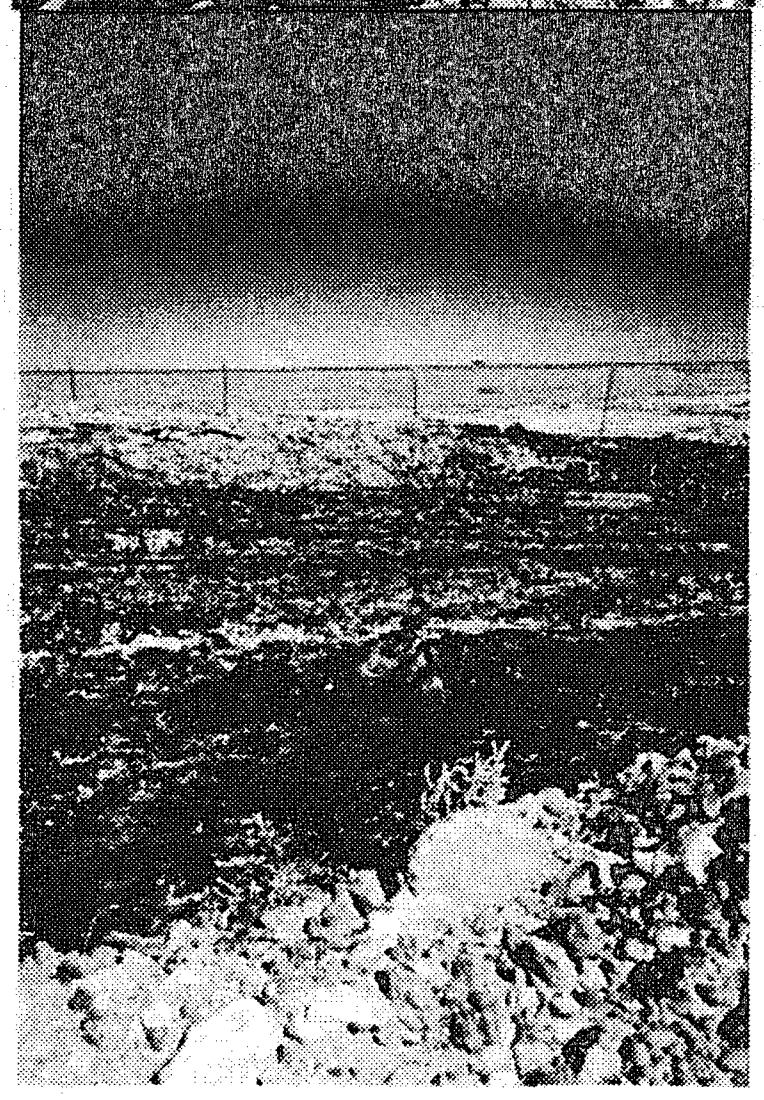
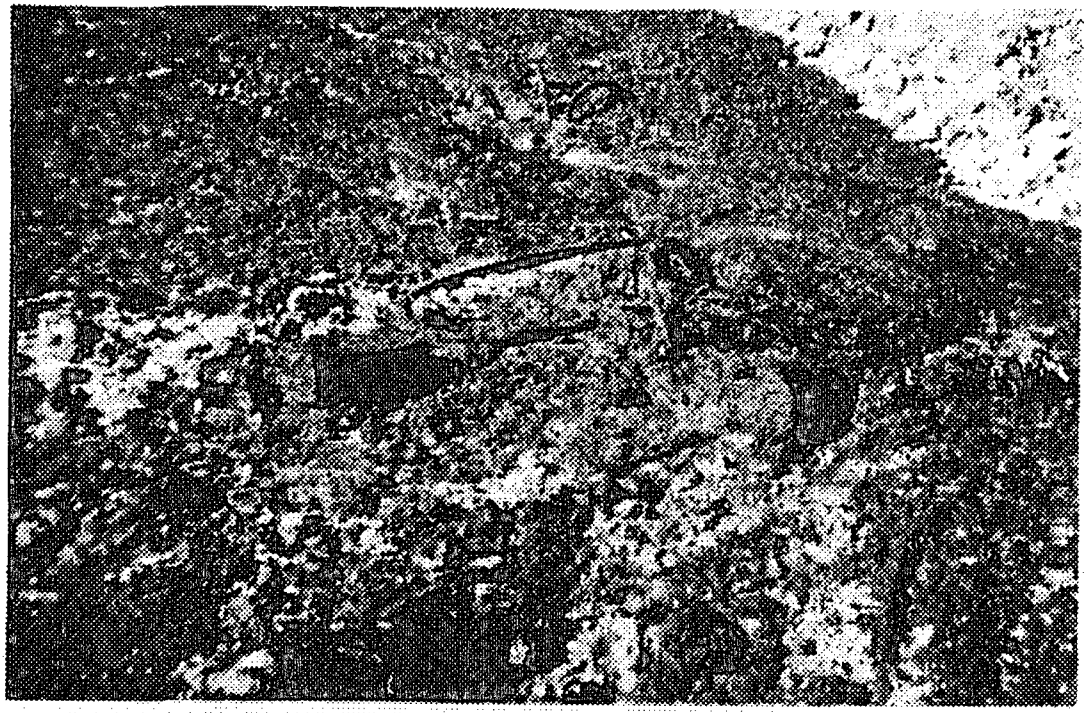


Picture 4 Date 10/30/97

Picture 5 Date 10/30/97

Picture 6 Date 10/30/97



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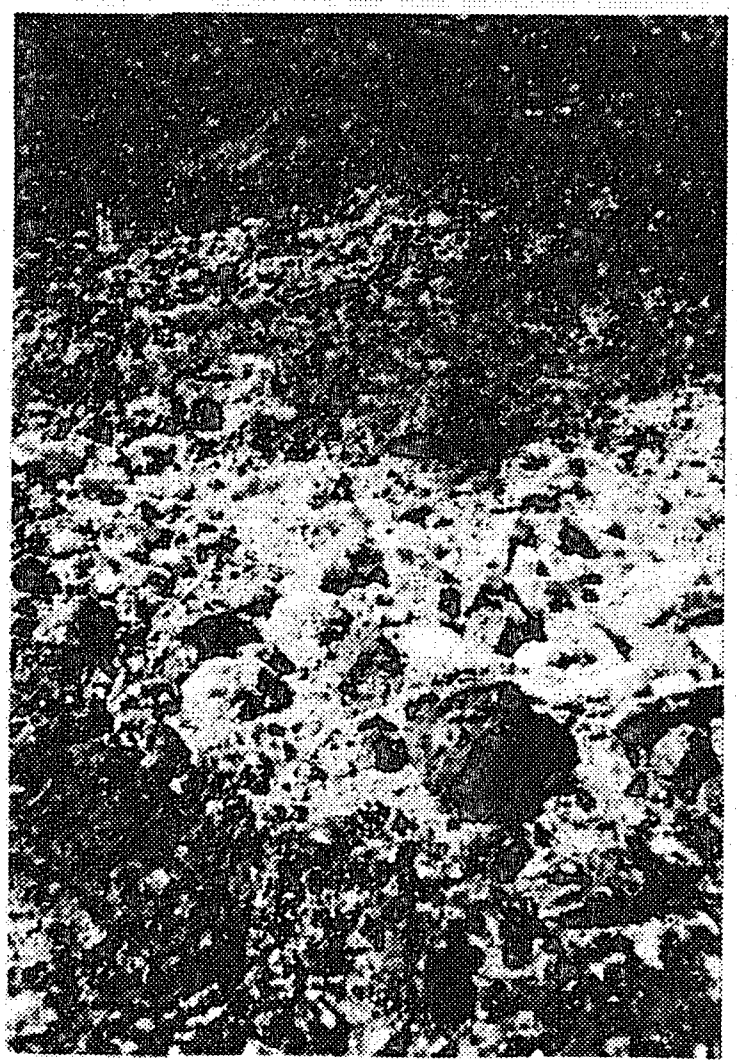
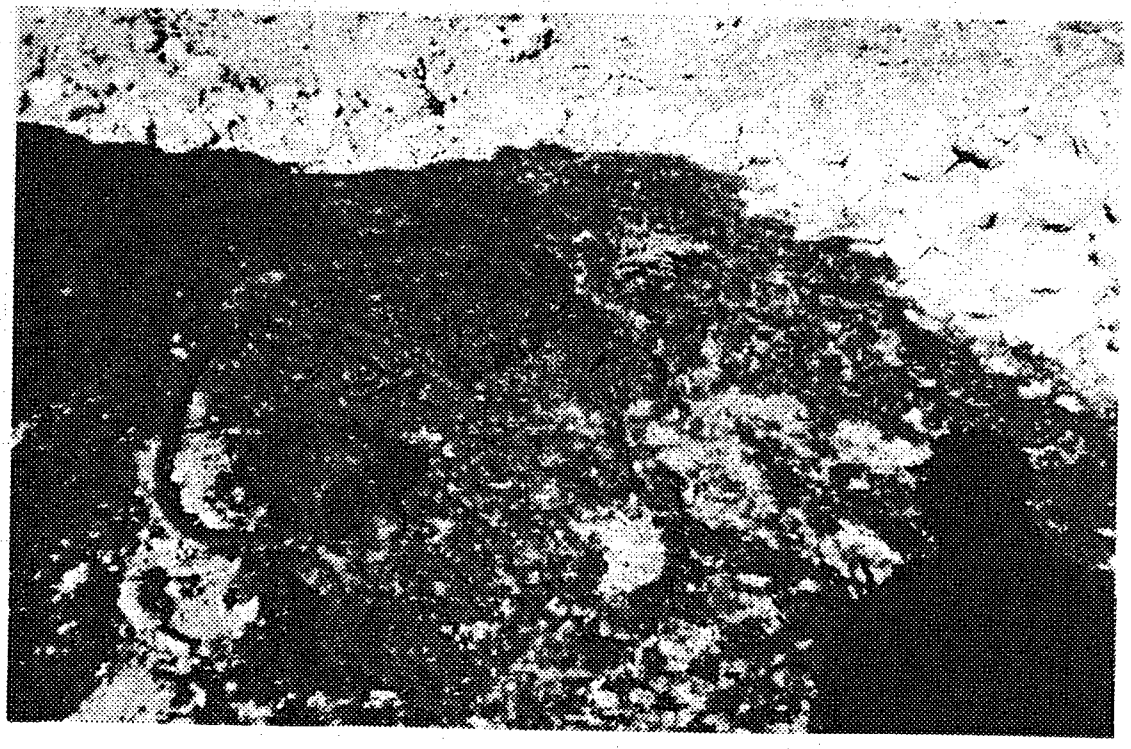


Picture 8 Date 10/30/97

Picture 9 Date 10/30/97



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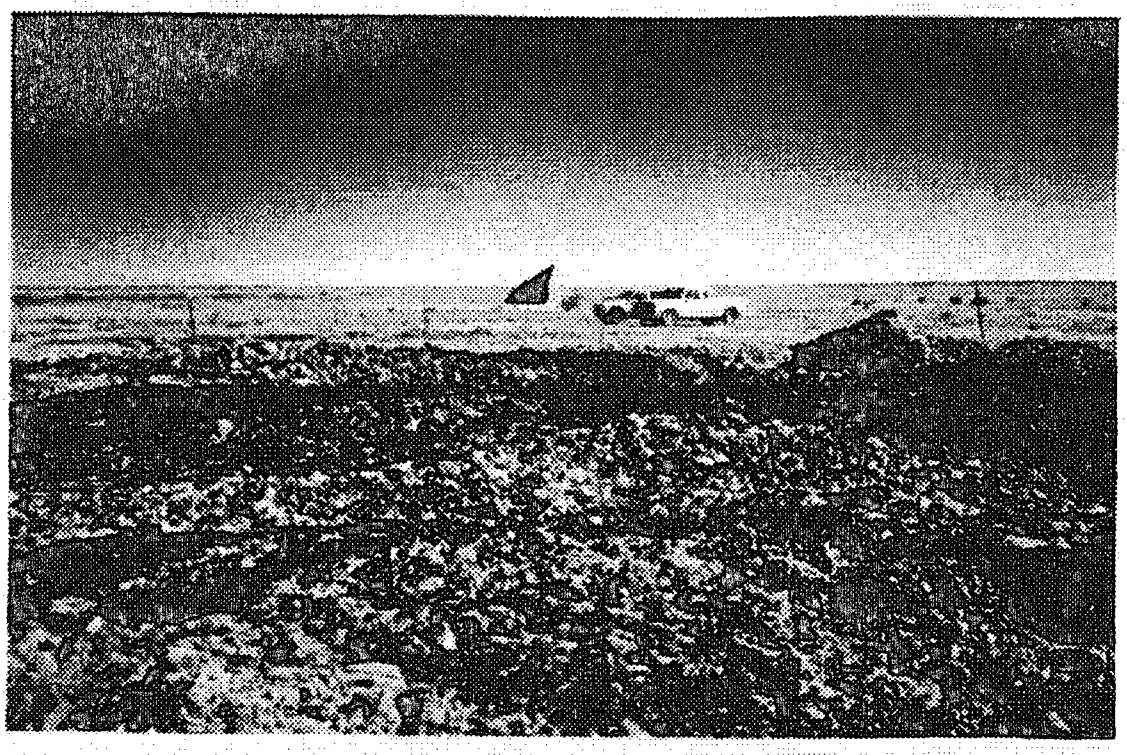
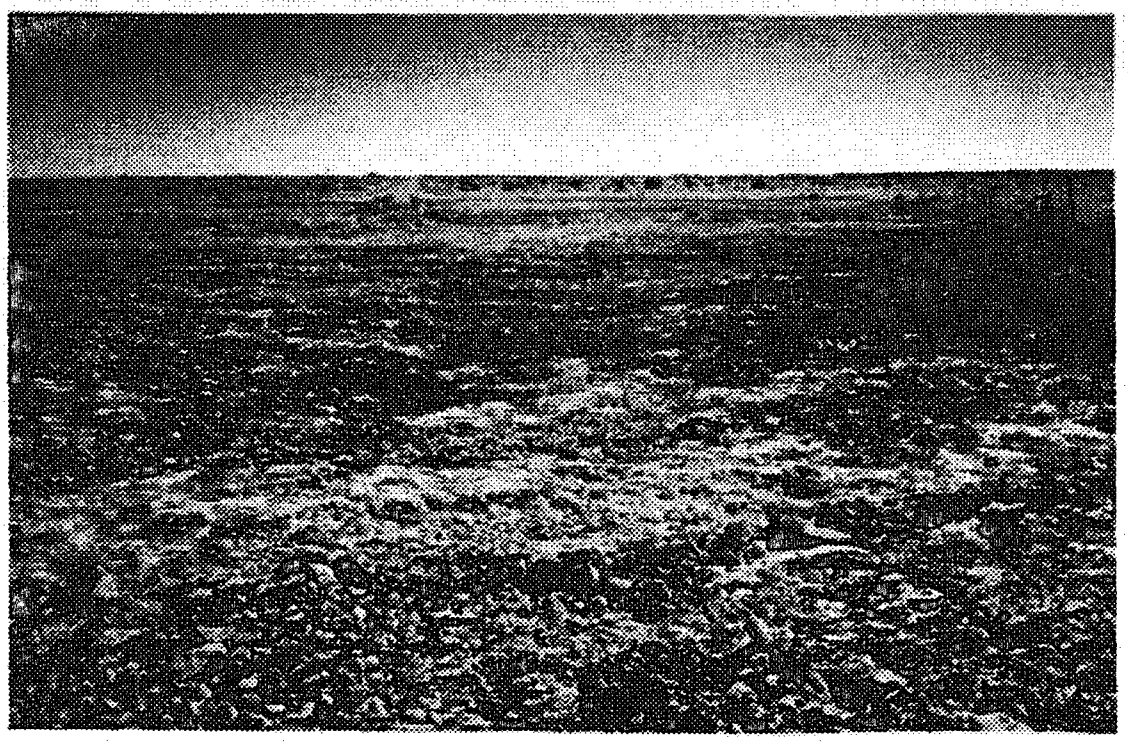


Picture 11 Date 10/30/97



Picture 12 Date 10/30/97

PENROC

October 25, 1997

Mr. Martyne J. Kieling
Oil Conservation Division
2040 South Pacheo Street
Santa Fe, New Mexico 87505

Re: Letter Dated October 16, 1997
NW/4, Section 5, Township 17 South, Range 33 East, NMPM
Lea County, New Mexico

Dear Mr. Kieling:

Thank you very much for your captioned letter and attachments. For your information Penroc et al bought the well located in the NW/4 from Southland Royalty Company (now Burlington) effective October 1, 1990. Due to mechanical problems with the well, it was plugged and abandoned as per approval by NMOCD-Hobbs, in April 1993. The pit mentioned in your letter was never used by Penroc or its personnel. When the pit came to our attention, **attempts were made to clean up and close the pit under the guidelines, but Penroc was not allowed to do the same. (Copies of correspondence with NMOCD attached.)**

In Penroc's defense the following needs to come your attention:

1. Penroc does not own the pit.

2. The pit, to the best of our knowledge is not accepting any oilfield waste. What waste you noticed in the pit was left by Southland. In fact an analysis of the fluid in the pit showed to be water with chlorides of 200ppm (as analyzed by Halliburton Hobbs Lab-copy attached).

Penroc being a good citizen took the obligation to close the pit under the NMOCD guidelines and finally on September 26, 1997, Mr. Wayne Price of Hobbs, NMOCD, approved pit closure plan. (Copy of C-103 attached.) Due to on and off wet weather, the implementation of the plan is delayed, and we plan to complete the task as soon as Mother Nature permits, with final closure expected on or before November 30, 1997.

Your cooperation in this matter is greatly appreciated. If you have any questions or comments, please do not hesitate to contact me anytime. Thank you.

Sincerely,

M. Y. (Merch) Merchant
President

CC: Mr. Bill Lee
Harcor
Unocal
NMOCD (Hobbs)
Jami Bailey, State Land Office

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970

DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118

(505) 397-3596 Phone
(505) 393-7051 FAX

Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name

1. Type of Well: OIL WELL [ ] GAS WELL [ ] OTHER UNLINED PIT CLOSURE

2. Name of Operator PENROC OIL CORPORATION

8. Well No.

3. Address of Operator P.O. Box 5970, HOBBS, NM 88241

9. Pool name or Wildcat

4. Well Location
Unit Letter D : _____ Feet From The _____ Line and _____ Feet From The _____ Line

Section 5 Township 17 S Range 33E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]		CASING TEST AND CEMENT JOB [ ]	
OTHER: Closure plan for un-lined pit. [ ]		OTHER: [ ]	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

As per NMOCD guidelines for un-lined production pit closure, Penroc Oil Corporation submits following plan:

1. Pick up rain water (accumulated from rain & has 200 ppm chlorides) & dispose in SWD.
2. Dig and pick up slush & oily dirt and haul to Controlled Recovery.
3. Catch soil sample and analyze @ Cardinal Lab. per NMOCD guide line.
4. After satisfactory results of soil analysis backfill the pit area with clean native dirt.
5. Once approved by the NMOCD Pit Remediation & Closure Report will be filed.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M. Y. Merchant TITLE Penroc DATE 9/26/97

TYPE OR PRINT NAME M. Y. Merchant TELEPHONE NO. 397-3596

Received
Hobbs
OCD

(This space for State Use)

APPROVED BY Wayne Price TITLE ENVR Engr DATE 9/26/97

CONDITIONS OF APPROVAL, IF ANY:

AS PER NMOCD GUIDELINES!

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Originated 6/27/97

Submit Original
Plus 1 Copy
to Santa Fe

PIT INVENTORY FORM

Operator: PENROC OIL CORPORATION

Address: P. O. Box 5970 HOBBS, NM 88241

Phone Number: (505) 397-3596

Previous Operator(s): SOUTHLAND ROYALTY CO.

Is the pit permitted: Yes ☐ No ☒

Unit Letter: NW/4 Section: 5 Township: 17S Range: 33E

County: LEA

Location Name: N.E. MALJAMAR UNIT NO. 1

Number of wells to the pit: One- Well is P&A'd.

Are the wells to the pit operated by one operator ☒ or multiple operators ☐

Total daily volume (in barrels) to the pit: NONE - WELL P&A'D. CURRENT OPERATOR NEVER USED IT.

Pit Type: BS&W/Tank Bottoms

(Emergency, Production, Workover, Reserve/Drilling(greater than 6 months old),Flare, Blowdown, Seperator, Dehydrator, Line Drip, BS&W/Tank Bottoms, Compressor, Pigging, Washdown, or other)

What types of wastes are accepted in the pit (Exempt, Non-exempt, Both, None): None

Pit age (years): DONT KNOW -

Is the pit lined ☐ or unlined ☒

Type of liner (None, Synthetic, Clay) : NONE

Is leak detection present: Yes ☐ No ☒

Is the pit netted: Yes ☐ No ☒

Pit dimensions (LxWxD): 20' X 20' X 2.5'

CERTIFICATION

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

Name: M. Y. MERCHANT Title: PRESIDENT

Signature: M. Y. Merchant Date: 7/27/97

A pit is defined as any below grade or surface feature which receives any materials other than fresh water.

HALLIBURTON

WATER ANALYSIS REPORT
HOBBS NEW MEXICO

Need to NMOCD - what they are doing?

COMPANY	Penroc	REPORT	97-314
		DATE	9/22/97
	Fax:393-7051	DISTRICT	Hobbs

SUBMITTED BY Merchant

WELL		DEPTH	
COUNTY		FIELD	
FORMATION		SOURCE	Pit

SAMPLE			
RESISTIVITY	9.46 @ 70 °F	@ °F	@ °F
SPECIFIC GR.	1.000		
pH	6.59		
CALCIUM	250 mpl	mpl	mpl
MAGNESIUM	0 mpl	mpl	mpl
CHLORIDE	200 mpl	mpl	mpl
SULFATES	less than 100 mpl	mpl	mpl
BICARBONATES	214 mpl	mpl	mpl
SOLUBLE IRON	0 mpl	mpl	mpl
OIL GRAVITY	@ °F	@ °F	@ °F

REMARKS

Resitivity measured in: Ohm/m2/m

ANALYST: John Eubank

PENROC

June 2, 1994

MR. JERRY SEXTON
NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240-1980

RE: ABANDONED PIT
N.E. MALJAMAR UNIT WELL NO. 1
NW/4 SECTION 5, T-17-S, R-33-E
LEA COUNTY, NEW MEXICO

Dear Mr. Sexton:

This letter is a follow-up to my letter of April 11, 1994 and various discussions regarding the captioned. As you know, I had Sonny's Oil Field Services vacuum truck at the pit on May 23, 1994. It was able to pick up 120 barrels of water. The remainder of the material in part of the pit is a film of oil and in the other part is heavy tank bottom no more than 3" deep.

Penroc plans to dig the pit two feet down and use cow manure to mix with the dirt. It will be monitored for next six months and will be returned to better than it ever was.

I appreciate your cooperation in the above matter and am confident with cooperation between industry and regulators, any problem of any size can be handled to the satisfaction of all. Thank you.

Sincerely,

M. Y. (Merch) Merchant
President & Chief Executive Officer

MYM/lm

MAILING ADDRESS:
PO Box 5970
Hobbs, NM
88241-5970
DELIVERY ADDRESS:
5014 Carlsbad Hwy.
Hobbs, NM
88240-1118
(505) 397-3596 Phone
(505) 393-7051 FAX

PENROC

April 11, 1994

Mr. Jerry Sexton
New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

RE: OLD PIT
N.E. MALJAMAR UNIT #1
NW/4 SECTION 5, T-17-S, R-33-E
LEA COUNTY, NEW MEXICO

Dear Mr. Sexton:

This letter is to confirm our discussion over two weeks ago about the un-used pit at the captioned plugged and abandoned well. As I informed you in person, this pit was there when Penroc took over operations from Southland Royalty Company on October 13, 1990. It was never used by Penroc's personnel from the take over date until the well was plugged the week of April 16, 1993. This fact was also confirmed by Mr. Ed Cartwright, Penroc's contract pumper, on April 8, 1994.

Since the pit was not in use by Penroc, and it was dry, we would have taken care of the pit properly once the tank battery was moved and location cleaned up. With NMOCD permission we still plan to do the same.

Penroc has been a prudent operator since its inception in 1961, and will continue to be enviromentally friendly operator for the years to come. If you desire any more information please contact me at the above address.

Sincerely,

M. Y. (Merch) Merchant
President & Chief Executive Officer

MYM/lm

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Hobbs, NM
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DELIVERY ADDRESS:
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NMOCD INTER-OFFICE CORRESPONDENCE

TO: NMOCD District I Complaint File

From: Wayne Price-Environmental Engineer

Date: October 29, 1997

Reference: Penroc Pit Closure sec 5-Ts17s-R33e

Subject: Ken Marsh- inquiry & complaint.

Comment:

Mr. Marsh met with W. Price & C. Williams and lodged a complaint on behalf of Penroc and CRI concerning Wayne Price's letter to Penroc dated October 27, 1997.

Mr. Marsh had the following comments:

1. Mr. Marsh indicated that Penroc's contractor (dirt Contractor)has signed that this material is exempt and Mr. Marsh went to the site and in his opinion this pit is no different than any other oil field pit and it should be classified as exempt.

2. Mr. Marsh expressed to us that it will cost him $10,000 dollars to isolate this waste. He assured the NMOCD his company will re-coop their expenses from OCD.

3. Mr. Marsh indicated in this particular case he has aligned himself with the interest of Penroc and indicated that he has previous documents which show that NMOCD is harassing Penroc and there could be legal action.

4. Mr. Marsh pointed out that there is an approved C-103 which indicated that this material was going to be hauled to CRI, and this issue should remain on a district level and not be handled out of Santa Fe. He pointed out that the NOV letter from Martyne Kieling did not mention anything about non-exempt waste or any requirement for testing.

   Mr. Marsh pointed out that letters to District I Supervisor Mr. Jerry Sexton indicated that this material has been hauled off as normal exempt oil field material and this precedence has already been set and the NMOCD does not have the right to change their mind on this issue.

5. Mr. Marsh is up-set that this document exist because he feels it will become part of the record and particularly if this material is sampled and the test show it to be hazardous waste it will ruin his business.

Rebuttal and Comments from Wayne Price & Chris Williams:

Wayne Price:

I informed Mr. Marsh this project is be handled out of Santa Fe and requested him to contact Mr. Anderson. The reason the letter was written was to make sure all parties were notified in a timely fashion so as to protect them from making a possible mistake concerning the hazardous waste issue.

I informed Mr. Marsh the pit closure was approved pursuant to the NMOCD Guidelines, the Guidelines specifically point out (page 4) Under Note: Concerning sampling and test; that only oil field contaminated soils which are exempt from federal RCRA subtitle C hazardous waste provisions applied. Any Unlined pits receiving non-exempt waste are subject to evaluation for RCRA hazardous waste characteristics.

Also pointed out to Mr. Marsh his permit conditions require the generator to make this demonstration before accepting this material. I also pointed out the generator has this responsibility at all times and no previous approvals such as the C-103 will negate this condition.

There was a round table discussion concerning easier ways or more cost effective ways of isolating the waste, and or maybe sampling the waste in place at the landfill. Mr. Marsh was not receptive of any of these ideals at this time, as he felt it was his business and responsibility as to how to do this. He reiterate that it will cost $10,000 dollars. He also indicated there might be legal action.

Chris Williams: Informed Mr. Marsh if they have any legal issue please contact our legal department, but assured him that the NMOCD District I will contact Mr. Anderson and set up a conference call to discuss this particle situation in a timely manner.

cc: Chris Williams-NMOCD District I Supervisor
Roger Anderson-Environmental Bureau Chief, Santa Fe, NM
Martyne [1]Kieling-Environmental Bureau, Santa Fe, NM

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OCD APPROVAL CONDITIONS
FOR
RCRA EXEMPT
UNLINED PIT CLOSURES

1. The following closure actions will be performed in accordance with OCD's February 1993 "SURFACE IMPOUNDMENT CLOSURE GUIDELINES":

   a. Vertical and horizontal extent of contamination will be determined either prior to, during or upon completion of remedial actions.

   b. Contaminated soils will be remediated to the OCD's recommended levels or a risk assessment will be provided which shows that an alternate cleanup level is protective of surface water, ground water, human health and the environment.

   c. Final soil contaminant concentrations will be determined upon completion of remedial actions.

   d. Soil samples for verification of completion of remedial actions will be sampled and analyzed for benzene, toluene, ethylbenzene, xylene **and** total petroleum hydrocarbons.

2. All wastes removed from a specific site will be disposed of at an OCD approved facility.

3. The OCD Santa Fe Office's Environmental Bureau Chief and the OCD Hobbs District Office will be notified within 24 hours of the discovery of ground water contamination related to a pit closure.

4. Upon completion of all closure activities, a completed OCD "Pit Remediation and Closure Report" form containing the results of all pit closure and soil remediation activities will be submitted to the OCD for approval. The report will include the concentrations and application rates of any materials or additives used to enhance bioremediation of the contaminants and the final concentrations of any soils landfarmed onsite or the final disposition of soils removed from the site . To simplify the approval process, the OCD requests that the final pit closure reports be submitted only upon completion of all closure activities including onsite remediation or landfarming of contaminated soils.

5. All original documents will be submitted to the OCD Hobbs Office for approval with copies provided to the OCD Santa Fe Office.

6. OCD approval does not relieve you of liability should closure activities determine that contamination exists which is beyond the scope of the work plan or if the closure activities fail to adequately remediate contamination related to your activities. In addition, OCD approval does not relieve you of responsibility for compliance with other federal, state or local laws and regulations.

October 27, 1997

Mr. M.Y. Merchant
Penroc Oil Corporation (POC)
P.O. Box 5970
Hobbs, NM 88241

RE: **Notice Of Violation letter from NMOCD Environmental Bureau dated October 16, 1997 issue to Mr. M.Y. Merchant Penroc Oil Corporation.**

Subject: Pit Closure
Nw/4 Sec 5-Ts17s-R33e
Lea Co., NM

Dear Mr. Merchant,

Pursuant to your and Mr. Devine's inquiry at the New Mexico Conservation Div. (NMOCD) District I office this Monday morning October 27, 1997 at 8:30 am, and after resultant telephone conversations with the NMOCD Environmental Bureau concerning this issue, the NMOCD District I has the following information and instructions concerning the above referenced site.

The pit closure submittal submitted to the District I office on September 26, 1997 and approved with conditions on September 26, 1997 will be forwarded to the NMOCD Environmental Bureau from this office. **You are hereby notified that the regulatory requirements for this closure will be transferred from the District I office to the NMOCD Environmental Bureau, attention of Martyne J. Kieling (505-827-7153) 2040 South Pacheco, Santa Fe, NM 87505. All closure activities and correspondence from this point and time shall be coordinated directly through the NMOCD Environmental Bureau. POC shall copy the District office on all correspondence between POC and NMOCD Environmental Bureau.**

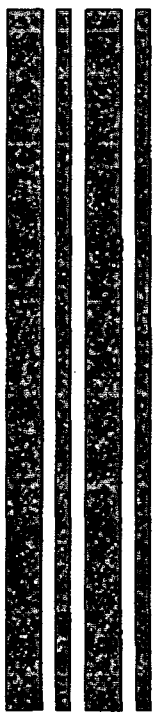
Due to the issue of EPA RCRA Non-Exempt waste discovered in the pit during the inspection team visit on September 22, 1997, POC is instructed not to dispose of any waste from the referenced location until a proper waste classification and/or hazardous waste determination has been made on the waste. Also, POC shall notify the disposal company in which any waste from this site has already been disposed of and POC shall have the disposal company isolate this waste pending hazardous waste determinations..

If you require any further information or assistance please do not hesitate to call (505-393-6161) or write this office.

Sincerely Yours,

Wayne Price-Environmental Engineer

cc: Chris Williams-NMOCD District I Supervisor
Roger Anderson-Environmental Bureau Chief, Santa Fe, NM
Martyne Kieling-Environmental Bureau, Santa Fe, NM



Patch T

NM - 74

MONITORING REPORTS

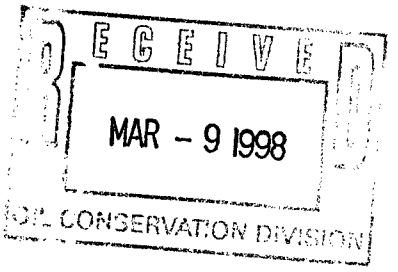
YEAR(S):

1998

American Environmental Network, Inc.

AEN I.D. 802321

March 6, 1998



NM-OCD
2040 S. PACHEO
SANTA FE, NM 87505

Project Name PENROC
Project Number (none)

Attention: BILL OLSON

On 2/5/98 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **non-aq** 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.

EPA method 8260 was analyzed by American Environmental Network (NM) Inc., Albuquerque, NM.

EPA methods 9010, 9030 and 6010 were analyzed by American Environmental Network (FL) Inc., Pensacola, FL.

All other parameters were analyzed by American Environmental Network (OR) Inc., Portland, OR.

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: mt

Enclosure

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (505) 344-4413

American Environmental Network, Inc.

CLIENT	: NM-OCD	AEN I.D.	: 802321
PROJECT #	: (none)	DATE RECEIVED	: 2/5/98
PROJECT NAME	: PENROC	REPORT DATE	: 3/6/98

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	NE MALJAMAR PIT	NON-AQ	2/4/98

American Environmental Network, Inc.

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)	DATE RECEIVED :	2/5/98
PROJECT NAME	: PENROC		

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT		UNITS
Dichlorodifluoromethane	0.05	< 5.0	MG/KG
Chloromethane	0.05	< 5.0	MG/KG
Vinyl Chloride	0.05	< 5.0	MG/KG
Bromomethane	0.05	< 5.0	MG/KG
Chloroethane	0.05	< 5.0	MG/KG
Trichlorofluoromethane	0.05	< 5.0	MG/KG
Acetone	0.5	< 50	MG/KG
Acrolein	0.25	< 25	MG/KG
1,1-Dichloroethene	0.05	< 5.0	MG/KG
Iodomethane	0.05	< 5.0	MG/KG
Methylene Chloride	0.05	< 5.0	MG/KG
Acrylonitrile	0.25	< 25	MG/KG
cis-1,2-Dichloroethene	0.05	< 5.0	MG/KG
Methyl-t-butyl Ether	0.05	< 5.0	MG/KG
1,1,2,1,2,2-Trichlorotrifluoroethane	0.05	< 5.0	MG/KG
1,1-Dichloroethane	0.05	< 5.0	MG/KG
trans-1,2-Dichloroethene	0.05	< 5.0	MG/KG
2-Butanone	0.5	< 50	MG/KG
Carbon Disulfide	0.05	< 5.0	MG/KG
Bromochloromethane	0.05	< 5.0	MG/KG
Chloroform	0.05	< 5.0	MG/KG
2,2-Dichloropropane	0.05	< 5.0	MG/KG
1,2-Dichloroethane	0.05	< 5.0	MG/KG
Vinyl Acetate	0.05	< 5.0	MG/KG
1,1,1-Trichloroethane	0.05	< 5.0	MG/KG
1,1-Dichloropropene	0.05	< 5.0	MG/KG
Carbon Tetrachloride	0.05	< 5.0	MG/KG
Benzene	0.05	**47**	**MG/KG**
1,2-Dichloropropane	0.05	< 5.0	MG/KG
Trichloroethene	0.05	< 5.0	MG/KG
Bromodichloromethane	0.05	< 5.0	MG/KG
2-Chloroethyl Vinyl Ether	0.5	< 50	MG/KG
cis-1,3-Dichloropropene	0.05	< 5.0	MG/KG
trans-1,3-Dichloropropene	0.05	< 5.0	MG/KG
1,1,2-Trichloroethane	0.05	< 5.0	MG/KG
1,3-Dichloropropane	0.05	< 5.0	MG/KG
Dibromomethane	0.05	< 5.0	MG/KG
Toluene	0.05	**19**	**MG/KG**
1,2-Dibromoethane	0.05	< 5.0	MG/KG
4-Methyl-2-Pentanone	0.5	< 50	MG/KG
2-Hexanone	0.5	< 50	MG/KG
Dibromochloromethane	0.05	< 5.0	MG/KG
Tetrachloroethene	0.05	< 5.0	MG/KG
Chlorobenzene	0.05	< 5.0	MG/KG
Ethylbenzene	0.05	**41**	**MG/KG**

American Environmental Network, Inc.

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)	DATE RECEIVED :	2/5/98
PROJECT NAME	: PENROC		

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
802321-01	NE MALJAMAR PIT	NON-AQ	2/4/98	2/6/98	02/06/98	100

PARAMETER	DET. LIMIT		UNITS
1,1,1,2-Tetrachloroethane	0.05	< 5.0	MG/KG
m&p Xylenes	0.05	**54**	**MG/KG**
o-Xylene	0.05	**16**	**MG/KG**
Styrene	0.05	< 5.0	MG/KG
Bromoform	0.05	< 5.0	MG/KG
1,1,2,2-Tetrachloroethane	0.05	< 5.0	MG/KG
1,2,3-Trichloropropane	0.05	< 5.0	MG/KG
Isopropyl Benzene	0.05	**13**	**MG/KG**
Bromobenzene	0.05	< 5.0	MG/KG
trans-1,4-Dichloro-2-Butene	0.05	< 5.0	MG/KG
n-Propylbenzene	0.05	**15**	**MG/KG**
2-Chlorotoluene	0.05	< 5.0	MG/KG
4-Chlorotoluene	0.05	< 5.0	MG/KG
1,3,5-Trimethylbenzene	0.05	**10**	**MG/KG**
tert-Butylbenzene	0.05	< 5.0	MG/KG
1,2,4-Trimethylbenzene	0.05	**33**	**MG/KG**
sec-Butylbenzene	0.05	**8.4**	**MG/KG**
1,3-Dichlorobenzene	0.05	< 5.0	MG/KG
1,4-Dichlorobenzene	0.05	< 5.0	MG/KG
p-Isopropyltoluene	0.05	< 5.0	MG/KG
1,2-Dichlorobenzene	0.05	< 5.0	MG/KG
n-Butylbenzene	0.05	**12**	**MG/KG**
1,2-Dibromomo-3-chloropropane	0.05	< 5.0	MG/KG
1,2,4-Trichlorobenzene	0.05	< 5.0	MG/KG
Naphthalene	0.05	**18**	**MG/KG**
Hexachlorobutadiene	0.05	< 5.0	MG/KG
1,2,3-Trichlorobenzene	0.05	< 5.0	MG/KG

SURROGATE % RECOVERY	
1,2-Dichloroethane-d4	92
	(80 - 120)
Toluene-d8	103
	(81 - 117)
Bromofluorobenzene	92
	(74 - 121)

American Environmental Network, Inc.

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)		
PROJECT NAME	: PENROC		

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	020698	NON-AQ	2/6/98	02/06/98	1

PARAMETER	DET. LIMIT		UNITS
Dichlorodifluoromethane	0.05	< 0.05	MG/KG
Chloromethane	0.05	< 0.05	MG/KG
Vinyl Chloride	0.05	< 0.05	MG/KG
Bromomethane	0.05	< 0.05	MG/KG
Chloroethane	0.05	< 0.05	MG/KG
Trichlorofluoromethane	0.05	< 0.05	MG/KG
Acetone	0.5	< 0.5	MG/KG
Acrolein	0.25	< 0.25	MG/KG
1,1-Dichloroethene	0.05	< 0.05	MG/KG
Iodomethane	0.05	< 0.05	MG/KG
Methylene Chloride	0.05	< 0.05	MG/KG
Acrylonitrile	0.25	< 0.25	MG/KG
cis-1,2-Dichloroethene	0.05	< 0.05	MG/KG
Methyl-t-butyl Ether	0.05	< 0.05	MG/KG
1,1,2,1,2,2-Trichlorotrifluoroethane	0.05	< 0.05	MG/KG
1,1-Dichloroethane	0.05	< 0.05	MG/KG
trans-1,2-Dichloroethene	0.05	< 0.05	MG/KG
2-Butanone	0.5	< 0.5	MG/KG
Carbon Disulfide	0.05	< 0.05	MG/KG
Bromochloromethane	0.05	< 0.05	MG/KG
Chloroform	0.05	< 0.05	MG/KG
2,2-Dichloropropane	0.05	< 0.05	MG/KG
1,2-Dichloroethane	0.05	< 0.05	MG/KG
Vinyl Acetate	0.05	< 0.05	MG/KG
1,1,1-Trichloroethane	0.05	< 0.05	MG/KG
1,1-Dichloropropene	0.05	< 0.05	MG/KG
Carbon Tetrachloride	0.05	< 0.05	MG/KG
Benzene	0.05	< 0.05	MG/KG
1,2-Dichloropropane	0.05	< 0.05	MG/KG
Trichloroethene	0.05	< 0.05	MG/KG
Bromodichloromethane	0.05	< 0.05	MG/KG
2-Chloroethyl Vinyl Ether	0.5	< 0.5	MG/KG
cis-1,3-Dichloropropene	0.05	< 0.05	MG/KG
trans-1,3-Dichloropropene	0.05	< 0.05	MG/KG
1,1,2-Trichloroethane	0.05	< 0.05	MG/KG
1,3-Dichloropropane	0.05	< 0.05	MG/KG
Dibromomethane	0.05	< 0.05	MG/KG
Toluene	0.05	< 0.05	MG/KG
1,2-Dibromoethane	0.05	< 0.05	MG/KG
4-Methyl-2-Pentanone	0.5	< 0.5	MG/KG
2-Hexanone	0.5	< 0.5	MG/KG
Dibromochloromethane	0.05	< 0.05	MG/KG
Tetrachloroethene	0.05	< 0.05	MG/KG
Chlorobenzene	0.05	< 0.05	MG/KG
Ethylbenzene	0.05	< 0.05	MG/KG

American Environmental Network, Inc.

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260		
CLIENT	: NMOCD	AEN I.D. :	802321
PROJECT #	: (none)		
PROJECT NAME	: PENROC		

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	020698	NON-AQ	2/6/98	02/06/98	1

PARAMETER	DET. LIMIT		UNITS
1,1,1,2-Tetrachloroethane	0.05	< 0.05	MG/KG
m&p Xylenes	0.05	< 0.05	MG/KG
o-Xylene	0.05	< 0.05	MG/KG
Styrene	0.05	< 0.05	MG/KG
Bromoform	0.05	< 0.05	MG/KG
1,1,2,2-Tetrachloroethane	0.05	< 0.05	MG/KG
1,2,3-Trichloropropane	0.05	< 0.05	MG/KG
Isopropyl Benzene	0.05	< 0.05	MG/KG
Bromobenzene	0.05	< 0.05	MG/KG
trans-1,4-Dichloro-2-Butene	0.05	< 0.05	MG/KG
n-Propylbenzene	0.05	< 0.05	MG/KG
2-Chlorotoluene	0.05	< 0.05	MG/KG
4-Chlorotoluene	0.05	< 0.05	MG/KG
1,3,5-Trimethylbenzene	0.05	< 0.05	MG/KG
tert-Butylbenzene	0.05	< 0.05	MG/KG
1,2,4-Trimethylbenzene	0.05	< 0.05	MG/KG
sec-Butylbenzene	0.05	< 0.05	MG/KG
1,3-Dichlorobenzene	0.05	< 0.05	MG/KG
1,4-Dichlorobenzene	0.05	< 0.05	MG/KG
p-Isopropyltoluene	0.05	< 0.05	MG/KG
1,2-Dichlorobenzene	0.05	< 0.05	MG/KG
n-Butylbenzene	0.05	< 0.05	MG/KG
1,2-Dibromomo-3-chloropropane	0.05	< 0.05	MG/KG
1,2,4-Trichlorobenzene	0.05	< 0.05	MG/KG
Naphthalene	0.05	< 0.05	MG/KG
Hexachlorobutadiene	0.05	< 0.05	MG/KG
1,2,3-Trichlorobenzene	0.05	< 0.05	MG/KG

SURROGATE % RECOVERY	
1,2-Dichloroethane-d4	112
	(80 - 120)
Toluene-d8	104
	(81 - 117)
Bromofluorobenzene	98
	(74 - 121)

American Environmental Network, Inc.

Spike Recovery and RPD Summary Report - SOIL

Method : C:\HPCHEM\1\METHODS\82600203.M (RTE Integrator)
Title : AEN New Mexico GC/MS
Last Update : Tue Feb 03 15:31:09 1998
Response via : Initial Calibration

Non-Spiked Sample: 020698B2.D

	Spike Sample	Spike Duplicate Sample
File ID :	020698S1.D	020698S2.D
Sample :	SEBS	SEBSD
Acq Time:	6 Feb 98 3:35 pm	6 Feb 98 4:12 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
1,1-Dichloroethene	0.00	2.50	2.53	2.61	101	104	3	22	59-172
Benzene	0.00	2.50	2.65	2.60	106	104	2	21	66-142
Trichloroethene	0.00	2.50	2.58	2.52	103	101	2	24	62-137
Toluene	0.00	2.50	2.64	2.48	106	99	6	21	59-139
Chlorobenzene	0.00	2.50	2.64	2.57	106	103	3	21	60-133

- Fails Limit Check

82600203.M Mon Feb 09 08:15:27 1998

American Environmental Network, Inc.
11 East Olive Road • Pensacola, FL 32514 • (850) 474-1001

SIGNATURE PAGE

Reviewed by: Linda Lofton
AEN Project Manager

Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
ALBUQUERQUE, NEW MEXICO

Project Name: NMOCD
Project Number: 802321
Project Location: PENROC
Accession Number: 802138

Project Manager: KIMBERLY D. MCNEILL
Sampled By: N/S

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: Group of Single Wetchem

Accession:	802138
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	802321
Project Name:	NMOCD
Project Location:	PENROC
Department:	WET CHEM

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 802138
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 802321
Project Name: NMOCD
Project Location: PENROC
Test: Group of Single Wetchem
Matrix: SOLID
QC Level: II

Lab ID: 001 Sample Date/Time: 04-FEB-98 1330
Client Sample Id: 802321-01 Received Date: 06-FEB-98

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CYANIDE, REACTIVE (9010)	MG/KG	ND	0.25		RCX005	CR
SULFIDE, REACTIVE (9030)	MG/KG	ND	5		RSX005	CR

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: Group of Single Metals

Accession:	802138
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	802321
Project Name:	NMOCD
Project Location:	PENROC
Department:	METALS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 802138
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 802321
Project Name: NMOCD
Project Location: PENROC
Test: Group of Single Metals
Matrix: SOLID
QC Level: II

Lab Id: 001 Sample Date/Time: 04-FEB-98 1330
Client Sample Id: 802321-01 Received Date: 06-FEB-98

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
SILICON (6010)	MG/KG	160	10		26S031	JR

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 802138
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 802321
Project Name: NMOCD
Project Location: PENROC
Test: Group of Single Metals

Client Sample Id:	Parameter:	Unit:	Result:
802321-01	SILICON (6010)	MG/KG	160

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Rd Pensacola, FL 32514 (850) 474-1001

Data Qualifiers for Final Report

AEN-Pensacola Inorganic/Organic

@	Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)
+	Elevated reporting limit due to dilution into calibration range
*	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)
#	Elevated reporting limit due to insufficient sample size
D	Diluted out
J5	The reported value is quantitated as a TIC; therefore, it is estimated
ND = Not Detected	N/S = Not Submitted N/A = Not Applicable

Florida Projects Inorganic/Organic

Y1	Improper preservation, no preservative present in sample upon receipt
Y2	Improper preservation, incorrect preservative present in sample upon receipt
Y3	Improper preservation, sample temperature exceeded EPA temperature limits of 2-6°C upon receipt
Y (FL description)	The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Q	Sample held beyond the accepted holding time
I	The reported value is < Laboratory RL and > laboratory MDL
U1	The reported value is ≤ Laboratory MDL (value for sample result is reported as the MDL)
U (FL description)	Indicates the compound was analyzed for but not detected.
T	The reported value is < Laboratory MDL (value shall not be used for statistical analysis)
V	The analyte was detected in both the sample and the associated method blank.
J1	Surrogate recovery limits have been exceeded
J2	The sample matrix interfered with the ability to make any accurate determinations
J3	The reported value failed to meet the established quality control criteria for either precision or accuracy
J (FL description)	Estimated value; not accurate.

AFCEE Projects (under QAPP) and **All Other (AEN-PN) Projects/Sites for Inorganic/Organic Parameters**

J4	(For positive results) Temperature limits exceeded (≤2°C or ≥ 6°C)
J (AFCEE description)	The analyte was positively identified, the quantitation is an estimation
R1	(For nondetects) Temperature limits exceeded (≤2°C or ≥ 6°C)
R2	Improper preservation, no preservative present in sample upon receipt
R3	Improper preservation, incorrect preservative present in sample upon receipt
R4	Holding time exceeded
R5	Collection requirements not met, improper container used for sample
R (AFCEE description)	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
F	< RL and > laboratory MDL
F (AFCEE description)	The analyte was positively identified but the associated numerical value is below the AFCEE or lab RL
U2	≤ Laboratory MDL (value for result will be the MDL, never below the MDL)
U (AFCEE description)	The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL
B (AFCEE description)	The analyte was found in the associated blank, as well as in the sample

ICR Projects Inorganic/Organic

A	Acceptable
R6	Rejected

Examples: ICR Flags

R6 = Laboratory extracted the sample but the refrigerator malfunctioned so the extract became warm and client was notified

R6 = Sample arrived in laboratory in good condition; however, the laboratory did not analyze it within EPA's established holding time limit.

CLP and CLP-like Projects

Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers

IDL = Laboratory Instrument Detection Limit
MDL = Laboratory Method Detection Limit
RL = Reporting Limit (AFCEE RLs are listed in the AFCEE QAPP)
CLP CRDL = CLP Contract Required Detection Limit (these limits are listed in the EPA CLP Statement of Work or SOW)
CLP CRQL = CLP Contract Required Quantitation Limit (these limits are listed in the EPA CLP Statement of Work or SOW)

Any time a sample arrives at the laboratory improperly preserved (at improper pH or temperature) or after holding time has expired or prepared or analyzed after holding time, client must be notified in writing (i.e. case narrative).

AEN-Pensacola uses the most current promulgated methods contained in the reference manuals.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: Group of Single Wetchem

Accession:	802138
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	802321
Project Name:	NMOCD
Project Location:	PENROC
Department:	WET CHEM

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"WetChem Quality Control Report"

Parameter:	CYANIDE	SULFIDE
Batch Id:	RCX005	RSX005
Blank Result:	<0.25	<5
Anal. Method:	9010	9030
Prep. Method:	N/A	N/A
Analysis Date:	10-FEB-98	09-FEB-98
Prep. Date:	09-FEB-98	09-FEB-98
Sample Duplication		
Sample Dup:	801690-2	801690-2
Rept Limit:	<0.25	<5
Sample Result:	<0.25	<1
Dup Result:	<0.25	<1
Sample RPD:	N/C	N/C
Max RPD:	0.25	5
Dry Weight%	N/A	N/A
Matrix Spike		
Sample Spiked:	N/A	N/A
Rept Limit:	N/A	N/A
Sample Result:		
Spiked Result:		
Spike Added:		
% Recovery:		
% Rec Limits:		
Dry Weight%		
ICV		
ICV Result:		18.2
True Result:		20.0
% Recovery:		91
% Rec Limits:		90-110
LCS		
LCS Result:		
True Result:		
% Recovery:		
% Rec Limits:		

----- Common Footnotes WetChem -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DISTILLATION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DISTILLATION) SPIKE.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE (DILUTION PRIOR DIGESTION AND/OR ANALYSIS).
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX (DILUTION PRIOR TO DIGESTION AND/OR ANALYSIS).
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS.
(*) = REPORTING LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN.
(CA) = SEE CORRECTIVE ACTIONS FORM.
**= MATRIX INTERFERENCE
SW-846, 3rd Edition, latest EPA-approved edition.
EPA 600/4-79-020, Revised March 1983.
STANDARD METHODS, For the Examination of Water and Wastewater, latest EPA-approved edition.
NIOSH Manual of Analytical Methods, 4th Edition.
ANNUAL BOOK OF ASTM STANDARDS, VOLUMES 11.01 and 11.02, latest EPA-approved edition.
METHODS FOR THE DETERMINATION OF INORGANIC SUBSTANCES IN ENVIRONMENTAL SAMPLES, EPA600/R-93/100, AUGUST 1993
METHODS FOR SOIL ANALYSIS, PART 2, CHEMICAL AND MICROBILOGICAL PROPERTIES, 2ND EDITION.
AEN-PN USES THE MOST CURRENT PROMULGATED METHODS FROM THE REFERENCES LISTED ABOVE.

1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES.
2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS.
3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION).
RPT LMTS = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

DPH	= DOLLY P. HWANG	RB	= REBECCA BROWN	JL	= JANET LECLEAR
MM	= MIKE MCKENZIE	ED	= ESTHER DANTIN	CR	= CYNTHIA ROBERTS
PLD	= PAULA L. DOUGHTY	LV	= LASSANDRA VON APPEN	JTZ	= JONATHAN T. ZIENTARSKI
RH	= RICKY HAGENDORFER	MG	= MARY GUTIERREZ	AB	= AMY BRADLEY
NK	= NIKKI KILBURN	BE	= BETTY EVERTON		

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: Group of Single Metals

Accession:	802138
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	802321
Project Name:	NMOCD
Project Location:	PENROC
Department:	METALS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Metals Quality Control Report"

Parameter:	SILICON
Batch Id:	26S031
Blank Result:	<10
Anal. Method:	6010A
Prep. Method:	3050A
Analysis Date:	26-FEB-98
Prep. Date:	25-FEB-98

Sample Duplication

Sample Dup:	802138-1
Rept Limit:	<10
Sample Result:	250 A
Dup Result:	320 A
Sample RPD:	25
Max RPD:	20
Dry Weight%	N/A

Matrix Spike

Sample Spiked:	802138-1
Rept Limit:	<10
Sample Result:	160
Spiked Result:	340 Q
Spike Added:	200
% Recovery:	90
% Rec Limits:	75-125
Dry Weight%	N/A

ICV

ICV Result:	10
True Result:	10
% Recovery:	100
% Rec Limits:	95-105

LCS

LCS Result:	140
True Result:	200
% Recovery:	70
% Rec Limits:	80-120

"Quality Control Comments"

Batch Id:	Comments:
26S031	ANALYST: JR
26S031	The results reported under 'Sample Duplication' are the MS/MSD.

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW THE REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X THE REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= THE RELATIVE PERCENT DIFFERENCE (RPD) EXCEEDS THE AEN CONTROL LIMIT AND IS "OUT OF CONTROL; DUE TO A NON-HOMOGENEOUS SAMPLE MATRIX.
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.
U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM QUALITY CONTROL REPORT:
RPD= RELATIVE PERCENT DEVIATION.
REPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS RUN BASIS. (NOT ADJUSTED FOR DRY WEIGHT).

SW-846, 3rd Edition, EPA - approved method update.
EPA 600/4-79-020, Revised March 1983.
NIOSH Manual of Analytical Methods, 4th Edition.
Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992.
Methods For the Determination of Metals in Environmental Samples - Supplement I, EPA 600/R-94-111, May 1994.

GJ = GARY JACOBS
JR = JOHN REED
JLH = JAMES L. HERED
JL = JANET LECLEAR

American Environmental Network of Florida
PROJECT SAMPLE INSPECTION FORM

Lab Accession #: 802138 Date Received: 06-Feb-98

1.	Was there a Chain of Custody?	(Yes)	No*	8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative except VOA vials that require zero headspace)*+	Yes	No* (N/A)
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*	9.	Is there sufficient volume for analysis requested?	(Yes)	No*
3.	Were samples received cold? (Criteria: 2° - 6°C: AEN-SOP 1055)	(Yes)	No* N/A	10.	Were samples received within Holding Time? (REFER TO AEN-SOP 1040)	(Yes)	No*
4.	Were all samples properly labeled and identified?	(Yes)	No*	11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No (N/A)
5.	Did samples require splitting? Req By: PM Client Other*	Yes*	(No)				
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*	12.	If sent, were matrix spike bottles returned?	Yes	No* (N/A)
7.	Were all sample containers received intact?	(Yes)	No*	13.	Was Project Manager notified of problems? (initials:_____)	Yes	No* (N/A)

Airbill Number(s): 348401442 3 **Shipped By:** FEDEX

Cooler Number(s): N/S **Shipping Charges:** N/A

Cooler Weight(s): N/A **Cooler Temp(s) (°C):** 4°C - CCK1

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

PER KIM MCNEILL OF AEN-NM ADD SILION @ $10.00.

2/6/98 @ 10:30

(USE BACK OF PSIFFOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: PE **Date:** 2/6/98 **Logged By:** PE **Date:** 2/6/98

♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form.*

♦ *Note who requested the splitting of samples on the Comment Section of this form.*

\+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (AEN-SOP 938, section 2.2.9).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, AEN makes it policy to record any headspace as out-of-control (AEN-SOP 938, section 2.2.12).*

American Environmental Network
Albuquerque, New Mexico

Interlab Chain of Custody

802138 DATE: 2/5 PAGE: 1 OF 1

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL

COMPANY: American Environmental Network
ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

CLIENT PROJECT MANAGER:

Kim McNeill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
802321-01	2/4/98	1330	WAQ	1

Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)	Reactivity (CN + S)	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																							

PROJECT INFORMATION

PROJECT NUMBER: 802321
PROJECT NAME: ~~Ponca~~ NMOCD
QC LEVEL: (STD.) IV
QC REQUIRED: (MS) MSD BLANK
TAT: STANDARD (RUSH)

DUE DATE: 2/12/98 1 Week Rush
RUSH SURCHARGE: _____
CLIENT DISCOUNT: _____
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	
N.C.	
RENTON	
PENSACOLA	X
PORTLAND	
PHOENIX	
ILL	

RELINQUISHED BY: 1.
Signature: John Caldwell Time: 1700
Printed Name: John Caldwell Date: 2/5/98
Albuquerque

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

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

RECEIVED BY: (LAB) 2.
Signature: Bob Esperman Time: 0821
Printed Name: R. ELSPERMAN Date: 2/6/98
Company: AENFL

Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LAB USE ONLY

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 2/5/98 PAGE: 1 OF 1

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division
ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505
PHONE: (505) 827-7154
FAX: (505) 827-8177
BILL TO: same
COMPANY:
ADDRESS:

802138

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
NE Maljamar Pit	2/4/98	1330	waste	

ANALYSIS REQUEST (NE Maljamar Pit)

Analysis	
Petroleum Hydrocarbons (418.1) TRPH	
(MOD.8015) Diesel/Direct Inject	
(M8015) Gas/Purge & Trap	
8021 (BTEX)/8015 (Gasoline)	
8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	
8021 (TCL)	
8021 (EDX)	
8021 (HALO)	
8021 (CUST)	
504.1 EDB ☐ / DBCP ☐	
FLASH POINT + corrosivity	X
8260 (TCL) Volatile Organics	
8260 (Full) Volatile Organics	X
8260 (CUST) Volatile Organics	
8260 (Landfill) Volatile Organics	
Pesticides /PCB (608/8081)	
Herbicides (615/8151)	
Base/Neutral/Acid Compounds GC/MS (625/8270)	X
Polynuclear Aromatics (610/8310)	
General Chemistry:	
TCLP-VOA (8260)	X
TCLP-SVOA (8270)	X
Priority Pollutant Metals (13)	
Target Analyte List Metals (23)	
RCRA Metals (8)	
RCRA Metals by TCLP (Method 1311)	X
Metals: 6010 + Hg, Se by AA	X
REACTIVITY (CN/S)	X

NUMBER OF CONTAINERS

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Penroc
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐
CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER
METHANOL PRESERVATION ☐
COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.
Signature: Bill Olson Time: 1225
Printed Name: Bill Olson Date: 2/5/98
Company: NMOCD

RECEIVED BY:
Signature: Time:
Printed Name: Date:
Company:

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

RECEIVED BY: (LAB)

American Environmental Network, Inc.

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 684-0447

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998
AEN Account No.: 90147
AEN Job Number: 98.00249

Project: 802321 / NM Oil Cons. Division
Location: Penroc

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
90089	802321/ NE MALJAMAR PIT	MISC. SOLID	02/04/1998	02/06/1998
90090	NE MALJAMAR PIT/802321-1 TCLP	MISC. SOLID	02/04/1998	02/06/1998

Approved by:

Andi Hoevet
Project Manager
AEN, INC.

Technical Review
AEN, INC.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
90089	802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Flashpoint	1010	94	140	Degree	02/11/1998	
ICP/AA Digestion - Soil	ICP	-	-		02/09/1998	
Aluminum, ICP	6010	400	10	mg/Kg	02/09/1998	
Antimony, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Arsenic, ICP	6010	47	1.0	mg/Kg	02/09/1998	
Barium, ICP	6010	57	1.0	mg/Kg	02/09/1998	
Beryllium, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Boron, ICP	6010	6.6	10	mg/Kg	02/09/1998	
Cadmium, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Calcium, ICP	6010	4700	10	mg/Kg	02/09/1998	
Chromium, ICP	6010	2.0	1.0	mg/Kg	02/09/1998	
Cobalt, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Copper, ICP	6010	7.5	1.0	mg/Kg	02/09/1998	
Iron, ICP	6010	3800	5.0	mg/Kg	02/09/1998	Q
Lead, ICP	6010	64	1.0	mg/kg	02/09/1998	
Magnesium, ICP	6010	560	10	mg/Kg	02/09/1998	
Manganese, ICP	6010	26	1.0	mg/Kg	02/09/1998	
Mercury Prep (S)	7471	-			02/10/1998	
Mercury, CVAA (S)	7471	ND	0.10	mg/Kg	02/10/1998	
Molybdenum, ICP	6010	1.6	1.0	mg/Kg	02/09/1998	
Nickel, ICP	6010	6.1	1.0	mg/Kg	02/09/1998	
Potassium, ICP	6010	120	5.0	mg/Kg	02/09/1998	
Selenium, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Silver, ICP	6010	ND	1.0	mg/Kg	02/09/1998	
Thallium, ICP	6010	ND	2.0	mg/Kg	02/09/1998	
Vanadium, ICP	6010	1.1	1.0	mg/Kg	02/09/1998	
Zinc, ICP	6010	140	5.0	mg/Kg	02/09/1998	Q
Corrosivity (pH)		6.5		units	02/09/1998	
Prep, BNA (S)		-			02/10/1998	
8270 BNA's (S)						
Dilution Factor		1500			02/14/1998	
2-Picoline	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
90089	802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
N-Nitrosodimethylamine	8270	ND	2,600	mg/Kg	02/14/1998	
Methyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
Phenol	8270	ND	510	mg/Kg	02/14/1998	
Ethyl methanesulfonate	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethyl)ether	8270	ND	260	mg/Kg	02/14/1998	
2-Chlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,3-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,4-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
1,2-Dichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
o-Cresol	8270	ND	260	mg/Kg	02/14/1998	
Benzyl Alcohol	8270	ND	260	mg/Kg	02/14/1998	
m,p-Cresol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroisopropyl)ether	8270	ND	260	mg/Kg	02/14/1998	
N-nitroso-di-n-propylamine	8270	ND	260	mg/Kg	02/14/1998	
Hexachloroethane	8270	ND	260	mg/Kg	02/14/1998	
Acetophenone	8270	ND	260	mg/Kg	02/14/1998	
Nitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
N-Nitrosopiperidine	8270	ND	260	mg/Kg	02/14/1998	
Isophorone	8270	ND	260	mg/Kg	02/14/1998	
2-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dimethylphenol	8270	ND	260	mg/Kg	02/14/1998	
bis(2-Chloroethoxy)methane	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
1,2,4-Trichlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Naphthalene	8270	55	260	mg/Kg	02/14/1998	J
2,6-Dichlorphenol	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobutadiene	8270	ND	260	mg/Kg	02/14/1998	
a,a,-Dimethylphenylamine	8270	ND	260	mg/Kg	02/14/1998	
N-Nitroso-di-n-butylamine	8270	ND	260	mg/Kg	02/14/1998	
4-Chloro-3-methylphenol	8270	ND	260	mg/Kg	02/14/1998	
2-Methylnaphthalene	8270	160	260	mg/Kg	02/14/1998	J
Hexachlorocyclopentadiene	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
90089	802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
1,2,4,5-Tetrachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,4,6-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2,4,5-Trichlorophenol	8270	ND	260	mg/Kg	02/14/1998	
2-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
1-Chloronaphthalene	8270	ND	260	mg/Kg	02/14/1998	
2-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
Dimethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
2,6-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthylene	8270	ND	260	mg/Kg	02/14/1998	
Acenaphthene	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrophenol	8270	ND	1,000	mg/Kg	02/14/1998	
4-Nitrophenol	8270	ND	260	mg/Kg	02/14/1998	
Dibenzofuran	8270	ND	260	mg/Kg	02/14/1998	
2,4-Dinitrotoluene	8270	ND	260	mg/Kg	02/14/1998	
2,3,4,6-Tetrachlorophenol	8270	ND	260	mg/Kg	02/14/1998	
Diethylphthalate	8270	ND	260	mg/Kg	02/14/1998	
4-Chlorophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Fluorene	8270	ND	260	mg/Kg	02/14/1998	
4-Nitroaniline	8270	ND	260	mg/Kg	02/14/1998	
4,6-Dinitro-2-methylphenol	8270	ND	2,600	mg/Kg	02/14/1998	
N-nitrosodiphenylamine	8270	ND	260	mg/Kg	02/14/1998	
Phenacetin	8270	ND	260	mg/Kg	02/14/1998	
4-Bromophenyl-phenylether	8270	ND	260	mg/Kg	02/14/1998	
Hexachlorobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pentachlorophenol	8270	ND	510	mg/Kg	02/14/1998	
4-Aminobiphenyl	8270	ND	510	mg/Kg	02/14/1998	
Pentachloronitrobenzene	8270	ND	260	mg/Kg	02/14/1998	
Pronamide	8270	ND	260	mg/Kg	02/14/1998	
Phenanthrene	8270	120	260	mg/Kg	02/14/1998	J
Anthracene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-butylphthalate	8270	ND	260	mg/Kg	02/14/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number: 90089
Sample Description: 802321/ NE MALJAMAR PIT

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Pyrene	8270	ND	260	mg/Kg	02/14/1998	
p-Diemthylaminozobenzene	8270	ND	260	mg/Kg	02/14/1998	
Butylbenzylphthalate	8270	ND	260	mg/Kg	02/14/1998	
3,3-Dichlorobenzidine	8270	ND	260	mg/Kg	02/14/1998	
Bis(2-ethylhexyl)phthalate	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Chrysene	8270	ND	260	mg/Kg	02/14/1998	
Di-n-octylphthalate	8270	ND	260	mg/Kg	02/14/1998	
7,12-Dimethylbenz(a)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(b)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(k)fluoranthene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(a)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenz(a,j)acridine	8270	ND	1,000	mg/Kg	02/14/1998	
3-methyl chloanthrene	8270	ND	260	mg/Kg	02/14/1998	
Indeno(1,2,3-cd)pyrene	8270	ND	260	mg/Kg	02/14/1998	
Dibenzo(ah)anthracene	8270	ND	260	mg/Kg	02/14/1998	
Benzo(g,h,i)perylene	8270	ND	260	mg/Kg	02/14/1998	

Sample Number: 90090
Sample Description: NE MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			02/10/1998	
Mercury Prep (W)	7470	-			02/11/1998	
TCLP EXTRACTION PREP	1311	-			02/10/1998	
TCLP - Arsenic, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Barium, ICP	6010	0.12	0.05	mg/L	02/12/1998	
TCLP - Cadmium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Chromium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Mercury	7470	ND	0.0002	mg/L	02/12/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

Sample Number	Sample Description
90090	NE MALJAMAR PIT/802321-1 TCLP

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
TCLP - Selenium, ICP	6010	ND	0.05	mg/L	02/12/1998	
TCLP - Silver, ICP	6010	ND	0.05	mg/L	02/12/1998	
Prep, BNA (W)		-			02/10/1998	
TCLP - 8240						
TCLP - Benzene	8240	0.970	0.5	mg/L	02/10/1998	
TCLP - Carbon tetrachloride	8240	ND	0.5	mg/L	02/10/1998	
TCLP - Chlorobenzene	8240	ND	100	mg/L	02/10/1998	
TCLP - Chloroform	8240	ND	6.0	mg/L	02/10/1998	
TCLP - 1,4-Dichlorobenzene	8240	ND	7.5	mg/L	02/10/1998	
TCLP - 1,2-Dichloroethane	8240	ND	0.5	mg/L	02/10/1998	
TCLP - 1,1-Dichloroethene	8240	ND	0.7	mg/L	02/10/1998	
TCLP - Methyl Ethyl Ketone	8240	ND	200	mg/L	02/10/1998	
TCLP - Tetrachloroethene	8240	ND	0.7	mg/L	02/10/1998	
TCLP - Trichlorothene	8240	ND	0.5	mg/L	02/10/1998	
TCLP - Vinyl Chloride	8240	ND	0.2	mg/L	02/10/1998	
BASE NEUTRAL COMPOUNDS - TCLP						
TCLP-1,4-Dichlorobenzene	8270	ND	7.5	mg/L	02/11/1998	
TCLP-2,4-Dinitrotoluene	8270	ND	0.13	mg/L	02/11/1998	
TCLP-Hexachlorobenzene	8270	ND	0.13	mg/L	02/11/1998	
TCLP-Hexachlorobutadiene	8270	ND	0.5	mg/L	02/11/1998	
TCLP-Hexachloroethane	8270	ND	3.0	mg/L	02/11/1998	
TCLP-Nitrobenzene	8270	ND	2.0	mg/L	02/11/1998	
TCLP-Pyridine	8270	ND	5.0	mg/L	02/11/1998	
ACID COMPOUNDS - TCLP						
TCLP-m&p-Cresol	8270	ND	200	mg/L	02/11/1998	
TCLP-o-Cresol	8270	ND	200	mg/L	02/11/1998	
TCLP-Pentachlorophenol	8270	ND	100	mg/L	02/11/1998	
TCLP-2,4,5-Trichlorophenol	8270	ND	400	mg/L	02/11/1998	
TCLP-2,4,6-Trichlorophenol	8270	ND	2.0	mg/L	02/11/1998	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

02/17/1998
Job No.: 98.00249

Project Name: 802321 / NM Oil Cons. Division
Date Received: 02/06/1998

SURROGATES	METHODS	RESULTS		DATE ANALYZED	FLAG
Sample Number	Sample Description				
90089	802321/ NE MALJAMAR PIT				
2-Fluorophenol	8270	NA	%	02/14/1998	
Phenol-d5	8270	NA	%	02/14/1998	
Nitrobenzene-d5	8270	NA	%	02/14/1998	
2-Fluorobiphenyl	8270	NA	%	02/14/1998	
2,4,6-Tribromophenol	8270	NA	%	02/14/1998	
Terphenyl-d14	8270	NA	%	02/14/1998	
Sample Number	Sample Description				
90090	NE MALJAMAR PIT/802321-1 TCLP				
1,2-Dichloroethane-d4	8240	99	%	02/10/1998	
Toluene - d8	8240	100	%	02/10/1998	
Bromofluorobenzene	8240	95	%	02/10/1998	
Nitrobenzene-d5 (Surr.)		68	%	02/11/1998	
2-Fluorobiphenyl (Surr.)		80	%	02/11/1998	
Terphenyl-d14 (Surr.)		90	%	02/11/1998	
Phenol-d5 (Surr.)	8270	25	%	02/11/1998	
2-Fluorophenol (Surr.)	8270	50	%	02/11/1998	
2,4,6-Tribromophenol (Surr.)	8270	83	%	02/11/1998	

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Flashpoint	81.	80	98.8	02/11/1998
Aluminum, ICP	25.0	23.4	93.6	02/09/1998
Antimony, ICP	0.500	0.499	99.8	02/09/1998
Arsenic, ICP	0.500	0.506	101.2	02/09/1998
Barium, ICP	0.500	0.505	101.0	02/09/1998
Beryllium, ICP	0.500	0.513	102.6	02/09/1998
Boron, ICP	0.500	0.505	101.0	02/09/1998
Cadmium, ICP	0.500	0.501	100.2	02/09/1998
Calcium, ICP	25.0	23.8	95.2	02/09/1998
Chromium, ICP	0.500	0.508	101.6	02/09/1998
Cobalt, ICP	0.500	0.501	100.2	02/09/1998
Iron, ICP	0.500	0.521	104.2	02/09/1998
Lead, ICP	0.500	0.508	101.6	02/09/1998
Magnesium, ICP	25.0	23.0	92.0	02/09/1998
Manganese, ICP	0.500	0.504	100.8	02/09/1998
Mercury, CVAA (S)	1.00	1.08	108.0	02/10/1998
Molybdenum, ICP	0.500	0.499	99.8	02/09/1998
Nickel, ICP	0.500	0.511	102.2	02/09/1998
Potassium, ICP	5.00	5.06	101.2	02/09/1998
Selenium, ICP	0.500	0.505	101.0	02/09/1998
Silver, ICP	0.500	0.500	100.0	02/09/1998
Thallium, ICP	0.500	0.503	100.6	02/09/1998
Vanadium, ICP	0.500	0.503	100.6	02/09/1998
Zinc, ICP	0.500	0.503	100.6	02/09/1998
Corrosivity (pH)	8.0	7.90	98.8	02/09/1998
TCLP - Arsenic, ICP	0.500	0.493	98.6	02/12/1998
TCLP - Barium, ICP	0.500	0.511	102.2	02/12/1998
TCLP - Cadmium, ICP	0.500	0.489	97.8	02/12/1998
TCLP - Chromium, ICP	0.500	0.510	102.0	02/12/1998
TCLP - Lead, ICP	0.500	0.499	99.8	02/12/1998

CCV - Continuing Calibration Verification

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
TCLP - Mercury	0.00200	0.00191	95.5	02/12/1998
TCLP - Selenium, ICP	0.500	0.499	99.8	02/12/1998
TCLP - Silver, ICP	0.500	0.508	101.6	02/12/1998
TCLP - 8240				
TCLP - Benzene	50	49.3	98.6	02/10/1998
TCLP - Chlorobenzene	50	49.0	98.0	02/10/1998
TCLP - 1,1-Dichloroethene	50	48.5	97.0	02/10/1998
TCLP - Trichlorothene	50	48.7	97.4	02/10/1998
BASE NEUTRAL COMPOUNDS - TCLP				
TCLP-1,4-Dichlorobenzene	50	52.1	104.2	02/11/1998
TCLP-Hexachlorobutadiene	50	50.5	101.0	02/11/1998
8270 BNA's (S)				
Phenol	50	47.8	95.6	02/14/1998
1,4-Dichlorobenzene	50	51.0	102.0	02/14/1998
2-Nitrophenol	50	51.6	103.2	02/14/1998
2,4-Dichlorophenol	50	50.3	100.6	02/14/1998
Hexachlorobutadiene	50	51.2	102.4	02/14/1998
4-Chloro-3-methylphenol	50	50.6	101.2	02/14/1998
Acenaphthene	50	51.7	103.4	02/14/1998
Pentachlorophenol	50	44.5	89.0	02/14/1998
Fluoranthene	50	50.8	101.6	02/14/1998
Di-n-octylphthalate	50	50.0	100.0	02/14/1998
Benzo(a)pyrene	50	51.2	102.4	02/14/1998

CCV - Continuing Calibration Verification

QUALITY CONTROL REPORT
LABORATORY CONTROL STANDARD

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Flags	Date Analyzed
Aluminum, ICP	500	485	97.0		02/09/1998
Antimony, ICP	50.0	48.3	96.6		02/09/1998
Arsenic, ICP	50.0	48.1	96.2		02/09/1998
Barium, ICP	50.0	49.4	98.8		02/09/1998
Beryllium, ICP	50.0	50.1	100.2		02/09/1998
Boron, ICP	50	48.4	96.8		02/09/1998
Cadmium, ICP	50.0	48.1	96.2		02/09/1998
Calcium, ICP	500	490	98.0		02/09/1998
Chromium, ICP	50.0	49.4	98.8		02/09/1998
Cobalt, ICP	50.0	48.1	96.2		02/09/1998
Copper, ICP	50.0	49.5	99.0		02/09/1998
Iron, ICP	250	204	81.6		02/09/1998
Lead, ICP	50.0	48.3	96.6		02/09/1998
Magnesium, ICP	500	495	99.0		02/09/1998
Manganese, ICP	50.0	49.1	98.2		02/09/1998
Mercury, CVAA (S)	0.500	0.483	96.6		02/10/1998
Molybdenum, ICP	50.0	48.7	97.4		02/09/1998
Nickel, ICP	50.0	48.3	96.6		02/09/1998
Potassium, ICP	500	487	97.4		02/09/1998
Selenium, ICP	50.0	46.6	93.2		02/09/1998
Silver, ICP	50.0	48.3	96.6		02/09/1998
Thallium, ICP	50.0	48.1	96.2		02/09/1998
Vanadium, ICP	50.0	49.4	98.8		02/09/1998
Zinc, ICP	50.0	50.1	100.2		02/09/1998
TCLP - Arsenic, ICP	0.500	0.502	100.4		02/12/1998
TCLP - Barium, ICP	0.500	0.505	101.0		02/12/1998
TCLP - Cadmium, ICP	0.500	0.497	99.4		02/12/1998
TCLP - Chromium, ICP	0.500	0.507	101.4		02/12/1998
TCLP - Lead, ICP	0.500	0.501	100.2		02/12/1998
TCLP - Mercury	0.00100	0.00109	109.0		02/12/1998

LCS - Laboratory Control Standard

QUALITY CONTROL REPORT
LABORATORY CONTROL STANDARD

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Flags	Date Analyzed
TCLP - Selenium, ICP	0.500	0.498	99.6		02/12/1998
TCLP - Silver, ICP	0.500	0.500	100.0		02/12/1998
TCLP - 8240					
TCLP - Benzene	0.050	0.050	100.0		02/10/1998
TCLP - Chlorobenzene	0.050	0.050	100.0		02/10/1998
TCLP - 1,1-Dichloroethene	0.050	0.047	94.0		02/10/1998
TCLP - Trichlorothene	0.050	0.049	98.0		02/10/1998
BASE NEUTRAL COMPOUNDS - TCLP					
TCLP-1,4-Dichlorobenzene	50.0	30.2	60.4		02/11/1998
TCLP-2,4-Dinitrotoluene	50.0	33.4	66.8		02/11/1998
BASE NEUTRAL COMPOUNDS - TCLP					
TCLP-1,4-Dichlorobenzene	50.0	32.1	64.2		02/11/1998
TCLP-2,4-Dinitrotoluene	50.0	33.7	67.4		02/11/1998
ACID COMPOUNDS - TCLP					
TCLP-Pentachlorophenol	100	47.3	47.3		02/11/1998
ACID COMPOUNDS - TCLP					
TCLP-Pentachlorophenol	100	45.8	45.8		02/11/1998

LCS - Laboratory Control Standard

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	Flags
Aluminum, ICP		9600	500	mg/Kg			500	mg/Kg			MD
Antimony, ICP	29.8	2.1	50.0	mg/Kg	55.4	28.8	50.0	mg/Kg	53.4	3.7	M,P
Arsenic, ICP	42.6	ND	50.0	mg/Kg	85.2	42.3	50.0	mg/Kg	84.6	0.7	
Barium, ICP	209	110	50.0	mg/Kg	198.0	188	50.0	mg/Kg	156.0	23.7	M,P,MR
Beryllium, ICP	44.5	ND	50.0	mg/Kg	89.0	45.0	50.0	mg/Kg	90.0	1.1	
Boron, ICP	44.7	1.7	50	mg/Kg	86.0	44.7	50	mg/Kg	86.0	0.0	
Cadmium, ICP	41.7	ND	50.0	mg/Kg	83.4	42.1	50.0	mg/Kg	84.2	1.0	
Calcium, ICP		4700	500	mg/Kg			500	mg/Kg			MD
Chromium, ICP	53.4	15	50.0	mg/Kg	76.8	54.9	50.0	mg/Kg	79.8	3.8	M,P
Cobalt, ICP	55.2	16	50.0	mg/Kg	78.4	55.1	50.0	mg/Kg	78.2	0.3	M,P
Copper, ICP	54.7	10	50.0	mg/Kg	89.4	54.8	50.0	mg/Kg	89.6	0.2	M,P
Iron, ICP		34000	250	mg/Kg			250	mg/Kg			DIL,Q,
Lead, ICP	42.9	1.1	50.0	mg/kg	83.6	43.1	50.0	mg/kg	84.0	0.5	
Magnesium, ICP		4100	500	mg/Kg			500	mg/Kg			MD
Manganese, ICP		390	50.0	mg/Kg			50.0	mg/Kg			MD
Mercury, CVAA (S)	0.880	ND	1.00	mg/Kg	88.0	0.866	1.00	mg/Kg	86.6	1.6	
Molybdenum, ICP	42.3	ND	50.0	mg/Kg	84.6	42.5	50.0	mg/Kg	85.0	0.5	
Nickel, ICP	54.4	18	50.0	mg/Kg	72.8	58.3	50.0	mg/Kg	80.6	10.2	M,P
Potassium, ICP	840	460	200	mg/Kg	190.0	801	200	mg/Kg	170.5	10.8	M,P
Selenium, ICP	38.3	ND	50.0	mg/Kg	76.6	39.1	50.0	mg/Kg	78.2	2.1	M,P
Silver, ICP	43.4	ND	50.0	mg/Kg	86.8	43.7	50.0	mg/Kg	87.4	0.7	

QC Sample:
90021

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil.= Diluted Out

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
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QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	Flags
Vanadium, ICP	115	100	50.0	mg/Kg	30.0	108	50.0	mg/Kg	16.0	60.9	M,P
Zinc, ICP	90.6	56	50.0	mg/Kg	69.2	91.3	50.0	mg/Kg	70.6	2.0	M,P,Q
TCLP - Arsenic, ICP	0.543	ND	0.500	mg/L	108.6	0.541	0.500	mg/L	108.2	0.4	
TCLP - Barium, ICP	0.607	0.12	0.500	mg/L	97.4	0.613	0.500	mg/L	98.6	1.2	
TCLP - Cadmium, ICP	0.485	ND	0.500	mg/L	97.0	0.484	0.500	mg/L	96.8	0.2	
TCLP - Chromium, ICP	0.489	ND	0.500	mg/L	97.8	0.491	0.500	mg/L	98.2	0.4	
TCLP - Lead, ICP	0.483	ND	0.500	mg/L	96.6	0.483	0.500	mg/L	96.6	0.0	
TCLP - Mercury	0.00209	ND	0.0020	mg/L	104.5	0.0021	0.0020	mg/L	105.0	0.5	
TCLP - Selenium, ICP	0.528	ND	0.500	mg/L	105.6	0.530	0.500	mg/L	106.0	0.4	
TCLP - Silver, ICP	0.520	ND	0.500	mg/L	104.0	0.520	0.500	mg/L	104.0	0.0	
TCLP - 8240											
TCLP - Benzene	0.047	ND	0.050	mg/L	94.0	0.047	0.050	mg/L	94.0	0.0	
TCLP - Chlorobenzene	0.047	ND	0.050	mg/L	94.0	0.048	0.050	mg/L	96.0	2.1	
TCLP - 1,1-Dichloroethene	0.044	ND	0.050	mg/L	88.0	0.045	0.050	mg/L	90.0	2.2	
TCLP - Trichlorothene	0.046	ND	0.050	mg/L	92.0	0.046	0.050	mg/L	92.0	0.0	

QC Sample:

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil.= Diluted Out

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
17400 SW Upper Boones Ferry Rd., Portland, OR 97224

QUALITY CONTROL REPORT
BLANKS

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division
Location: Penroc

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
Aluminum, ICP	ND	10	mg/Kg	02/09/1998
Antimony, ICP	ND	1.0	mg/Kg	02/09/1998
Arsenic, ICP	ND	1.0	mg/Kg	02/09/1998
Barium, ICP	ND	1.0	mg/Kg	02/09/1998
Beryllium, ICP	ND	1.0	mg/Kg	02/09/1998
Boron, ICP	ND	10	mg/Kg	02/09/1998
Cadmium, ICP	ND	1.0	mg/Kg	02/09/1998
Calcium, ICP	ND	10	mg/Kg	02/09/1998
Chromium, ICP	ND	1.0	mg/Kg	02/09/1998
Cobalt, ICP	ND	1.0	mg/Kg	02/09/1998
Copper, ICP	ND	1.0	mg/Kg	02/09/1998
Iron, ICP	ND	2.0	mg/Kg	02/09/1998
Lead, ICP	ND	1.0	mg/kg	02/09/1998
Magnesium, ICP	ND	10	mg/Kg	02/09/1998
Manganese, ICP	ND	1.0	mg/Kg	02/09/1998
Mercury, CVAA (S)	ND	0.10	mg/Kg	02/10/1998
Molybdenum, ICP	ND	1.0	mg/Kg	02/09/1998
Nickel, ICP	ND	1.0	mg/Kg	02/09/1998
Potassium, ICP	ND	5.0	mg/Kg	02/09/1998
Selenium, ICP	ND	1.0	mg/Kg	02/09/1998
Silver, ICP	ND	1.0	mg/Kg	02/09/1998
Thallium, ICP	ND	2.0	mg/Kg	02/09/1998
Vanadium, ICP	ND	1.0	mg/Kg	02/09/1998
Zinc, ICP	ND	1.0	mg/Kg	02/09/1998
TCLP - Arsenic, ICP	ND	0.005	mg/L	02/12/1998
TCLP - Barium, ICP	ND	0.005	mg/L	02/12/1998

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QUALITY CONTROL REPORT
BLANKS

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division
Location: Penroc

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
TCLP - Cadmium, ICP	ND	0.002	mg/L	02/12/1998
TCLP - Chromium, ICP	ND	0.005	mg/L	02/12/1998
TCLP - Lead, ICP	ND	0.005	mg/L	02/12/1998
TCLP - Mercury	ND	0.0002	mg/L	02/12/1998
TCLP - Selenium, ICP	ND	0.005	mg/L	02/12/1998
TCLP - Silver, ICP	ND	0.005	mg/L	02/12/1998
TCLP - 8240				
TCLP - Benzene	ND	0.5	mg/L	02/10/1998
TCLP - Carbon tetrachloride	ND	0.5	mg/L	02/10/1998
TCLP - Chlorobenzene	ND	100	mg/L	02/10/1998
TCLP - Chloroform	ND	6.0	mg/L	02/10/1998
TCLP - 1,4-Dichlorobenzene	ND	7.5	mg/L	02/10/1998
TCLP - 1,2-Dichloroethane	ND	0.5	mg/L	02/10/1998
TCLP - 1,1-Dichloroethene	ND	0.7	mg/L	02/10/1998
TCLP - Methyl Ethyl Ketone	ND	200	mg/L	02/10/1998
TCLP - Tetrachloroethene	ND	0.7	mg/L	02/10/1998
TCLP - Trichlorothene	ND	0.5	mg/L	02/10/1998
TCLP - Vinyl Chloride	ND	0.2	mg/L	02/10/1998
1,2-Dichloroethane-d4	100		%	02/10/1998
Toluene - d8	100		%	02/10/1998
Bromofluorobenzene	94		%	02/10/1998
TCLP - 8240				
TCLP - Benzene	ND	0.5	mg/L	02/10/1998
TCLP - Carbon tetrachloride	ND	0.5	mg/L	02/10/1998
TCLP - Chlorobenzene	ND	100	mg/L	02/10/1998
TCLP - Chloroform	ND	6.0	mg/L	02/10/1998

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QUALITY CONTROL REPORT
BLANKS

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division
Location: Penroc

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
TCLP - 1,4-Dichlorobenzene	ND	7.5	mg/L	02/10/1998
TCLP - 1,2-Dichloroethane	ND	0.5	mg/L	02/10/1998
TCLP - 1,1-Dichloroethene	ND	0.7	mg/L	02/10/1998
TCLP - Methyl Ethyl Ketone	ND	200	mg/L	02/10/1998
TCLP - Tetrachloroethene	ND	0.7	mg/L	02/10/1998
TCLP - Trichlorothene	ND	0.5	mg/L	02/10/1998
TCLP - Vinyl Chloride	ND	0.2	mg/L	02/10/1998
1,2-Dichloroethane-d4	101		%	02/10/1998
Toluene - d8	99		%	02/10/1998
Bromofluorobenzene	96		%	02/10/1998
BASE NEUTRAL COMPOUNDS - TCLP				
TCLP-Pyridine	ND	5	ug/L	02/11/1998
TCLP-1,4-Dichlorobenzene	ND	5	ug/L	02/11/1998
TCLP-Hexachloroethane	ND	5	ug/L	02/11/1998
TCLP-Nitrobenzene	ND	5	ug/L	02/11/1998
TCLP-Hexachlorobutadiene	ND	5	ug/L	02/11/1998
TCLP-2,4-Dinitrotoluene	ND	5	ug/L	02/11/1998
TCLP-Hexachlorobenzene	ND	5	ug/L	02/11/1998
Nitrobenzene-d5 (Surr.)	61	-	%	02/11/1998
2-Fluorobiphenyl (Surr.)	73	-	%	02/11/1998
Terphenyl-d14 (Surr.)	92	-	%	02/11/1998
ACID COMPOUNDS - TCLP				
TCLP-o-Cresol	ND	5	ug/L	02/11/1998
TCLP-m&p-Cresol	ND	5	ug/L	02/11/1998
TCLP-2,4,6-Trichlorophenol	ND	5	ug/L	02/11/1998
TCLP-2,4,5-Trichlorophenol	ND	5	ug/L	02/11/1998

QUALITY CONTROL REPORT
BLANKS

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division
Location: Penroc

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
TCLP-Pentachlorophenol	ND	10	ug/L	02/11/1998
Phenol-d5 (Surr.)	19	-	%	02/11/1998
2-Fluorophenol (Surr.)	44	-	%	02/11/1998
2,4,6-Tribromophenol (Surr.)	68	-	%	02/11/1998

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QUALITY CONTROL REPORT
DUPLICATES

AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

Date: 02/17/1998

Job Number: 98.00249

Contact: Kim McNeill
Project: 802321 / NM Oil Cons. Division

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
Corrosivity (pH)	6.5	6.5	units	0.0	02/09/1998	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

FLAG GLOSSARY

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	Analyte found in the associated blank as well as the sample.
C	The sample contains a lighter hydrocarbon than gasoline.
CN	See case narrative
CS	Outside control limits or unusual matrix; see case narrative.
D	The sample extends to a heavier hydrocarbon range than gasoline.
d	Results on a dry weight basis
DIL	Result was calculated from dilution.
E	The sample extends to a lighter hydrocarbon range than diesel.
F	The sample extends to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component comtamination.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
LM	The LCS recovery exeeded control limits; the MS/MSD were in control validating the batch.
M	MS and/or MSD percent recovery exceeds control limits.
MD	Unable to calculate MS/MSD recovery due to high amount of analyte; greater than 4 times spike level.
MR	The MS/MSD RPD is greater than method critera. The sample was re-extracted and re-analyzed with similar results indica a non-homogeneous sample.
MM	The Matrix Spike exceeded control limits; LCS/LCS-D were in control validating the batch.
MI	Outside control limits due to matrix interference.
N	Manual integration performed on sample for quantification.
N/A	Not Applicable.
NC	Not calcuable.
NO	Not Analyzed.
P	A post digestion spike was analyzed, and recoveries were within control limits.
Q	Detection limits elevated due to sample matrix.
Q1	Detection limits elevated due to high levels of non-target compounds. Sample(s) run at a dilution.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
RD	RPD not applicable for results less than five times the reporting limit.
RP	MS/MSD RPD is greater than 20%
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
SD	Unable to quantitate surrogate due to sample dilution.
SC	Sample not provided to laboratory in proper sampling container.
V	Volatile analysis was requested, sample container received with headspace.
X1	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 2/5/98 PAGE: 1 OF 1

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division

ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505

PHONE: (505) 827-7154

FAX: (505) 827-8177

BILL TO: same

COMPANY:

ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
NE Majamar Pit	2/4/98	1330	waste	

ANALYSIS REQUEST

Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline)	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	Flash point + corrosivity	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310)	General Chemistry:	TCLP-VOA (8260)	TCLP-SVOA (8270)	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals: 6010 + Hg, Se by AA	REACTIVITY (cn/s)
										X		X					X			X	X				X	X	X

PROJECT INFORMATION

PROJ. NO.:

PROJ. NAME: Penroc

P.O. NO.:

SHIPPED VIA:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY:

Signature: Time: 1225

Printed Name: Bill Olson Date: 2/5/98

Company: NMOCD

RELINQUISHED BY:

Signature: Time:

Printed Name: Date:

Company:

RELINQUISHED BY:

Signature: Time

Printed Name: Date:

Company:

American Environmental Network
Albuquerque, New Mexico

Interlab Chain of Custody

DATE 2/5/98 PAGE 1 OF 1

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL

COMPANY: American Environmental Network
ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

98.00249
90089
90

CLIENT PROJECT MANAGER:

Kim McNeill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)	Metals (6010) + Hg + SE	TOX	TOC	Gen Chemistry	Flash Point, Corrosivity	8270	Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GCMS (625/8270)	Volatile Organics GCMS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 TCLP (1311)	TCLP 8260	TCLP	Gross Alpha/Beta				NUMBER OF CONTAINERS
802321-01	2/4/98	1330	NAQ					X	X				X	X										X	X						1

→ See Attached Page for Metals.

PROJECT INFORMATION

PROJECT NUMBER: 802321
PROJECT NAME: NMOCD
QC LEVEL: (SW) IV
QC REQUIRED: (MS) MSD BLANK
TAT: STANDARD (RUSH)

DUE DATE: 2/12/98
1 week RUSH
RUSH SURCHARGE:
CLIENT DISCOUNT:
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
Paragon
RENTON
PENSACOLA
PORTLAND X
PHOENIX

RELINQUISHED BY: 1.

Signature: John Caldwell Time: 1700
Printed Name: John Caldwell Date: 2/5/98
Albuquerque

RECEIVED BY: 1.

Signature: MM Phillips Time: 0930
Printed Name: MM Phillips Date: 2/6/98
Company: ASN

RELINQUISHED BY: 2

Signature Time
Printed Name Date
Company

RECEIVED BY: (LAB) 2.

Signature: Time:
Printed Name: Date:
Company:

Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

Rechecked by: ____

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 2/5/98 PAGE: 1 OF 1

AEN(NM) Accession #: 802321

SHADED AREAS ARE FOR LAB USE ONLY

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division
ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87505
PHONE: (505) 827-7154
FAX: (505) 827-8177

BILL TO: same
COMPANY:
ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
NE Maljamar Pit	2/4/98	1330	waste	-01

ANALYSIS REQUEST (marked X for sample -01):

- Petroleum Hydrocarbons (418.1) TRPH
- (MOD.8015) Diesel/Direct Inject
- (M8015) Gas/Purge & Trap
- 8021 (BTEX)/8015 (Gasoline)
- 8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE
- 8021 (TCL)
- 8021 (EDX)
- 8021 (HALO)
- 8021 (CUST)
- 504.1 EDB ☐ / DBCP ☐
- FLASH POINT + corrosivity — X
- 8260 (TCL) Volatile Organics
- 8260 (Full) Volatile Organics — X
- 8260 (CUST) Volatile Organics
- 8260 (Landfill) Volatile Organics
- Pesticides /PCB (608/8081)
- Herbicides (615/8151)
- Base/Neutral/Acid Compounds GC/MS (625/8270) — X
- Polynuclear Aromatics (610/8310)
- General Chemistry:
- TCLP-VOA (8260) — X
- TCLP-SVOA (8270) — X
- Priority Pollutant Metals (13)
- Target Analyte List Metals (23)
- RCRA Metals (8)
- RCRA Metals by TCLP (Method 1311) — X
- Metals: 6010 + Hg, Se by AA — X
- REACTIVITY (CN/S) — X
- NUMBER OF CONTAINERS

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Penroc
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	3
CUSTODY SEALS	Y/N/NA (NA circled)
RECEIVED INTACT	yes
BLUE ICE/ICE	5°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.
Signature: [signature] Time: 1225
Printed Name: Bill Olson Date: 2/5/98
Company: NMOCD

RECEIVED BY: 1.
Signature: Time:
Printed Name: Date:
Company:

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

RECEIVED BY: (LAB) 2.
Signature: [signature] Time: 1225
Printed Name: [signature] Date: 2/5/98
American Environmental Network (NM), Inc.