1R - 300

GENERAL CORRESPONDENCE

YEAR(S):

2001 - 1997

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Donna Williams
OCD Hobbs Office
1625 N. French Drive
Hobbs, NM 88240

Report Date: February 7, 2001

Order ID Number: A01010508

Project Number: N/A
Project Name: N/A
Project Location: N/A

Ricky Pierce

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
161875	0103011100	Water	1/3/01	11:00	1/5/01
161876	0103011119	Water	1/3/01	11:19	1/5/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Cation-Anion Balance Sheet

DATE: 2/15/01 MK

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate ppm	Fluoride ppm	TDS ppm	EC µMHOs/cm
161875	146	27	94	9	145	310	270	49	0		2200
161876	153	25	95	4.9	136	180	270	3.2	0		1500

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate in meq/L	Fluoride in meq/L	**Cations in meq/L**	**Anions in meq/L**	**Percentage Error**
161875	7.29	2.22	4.09	0.23	2.90	6.45	7.62	3.49811	0	13.83	20.47	38.7372556
161876	7.63	2.06	4.13	0.13	2.72	3.75	7.62	0.228448	0	13.95	14.31	2.568459877

	EC/Cation	EC/Anion				
161875	1382.645	2046.901	range	1980	to	2420
161876	1394.9792	1431.2748	range	1350	to	1650

TDS/EC	TDS/Cat	TDS/Anion	
0.00	0.00	0.00	needs to be 0.55-0.77
0.00	0.00	0.00	needs to be 0.55-0.77

The cations and anions were reanalyzed for both samples in order to achieve a lower percent error for sample 161875. The rerun results were consistent with the initial results. The high percent error could be due to other analytes not detected in this run.

Analytical Report

Sample: 161875 - 0103011100

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC07912	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06919	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		145	mg/L as CaCo3	1	1
Total Alkalinity		145	mg/L as CaCo3	1	1

Sample: 161875 - 0103011100

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC07914	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06921	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		2200	μMHOS/cm	1	

Sample: 161875 - 0103011100

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC08826	Date Analyzed:	2/6/01
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB06937	Date Prepared:	1/9/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		146	mg/L	1	0.50
Dissolved Magnesium		27	mg/L	1	0.50
Dissolved Potassium		9.0	mg/L	1	0.50
Dissolved Sodium		94	mg/L	1	0.50

Sample: 161875 - 0103011100

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC07908	Date Analyzed:	1/5/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06916	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
CL		270	mg/L	1	0.50
Fluoride		<1.0	mg/L	1	0.20
Nitrate-N		49	mg/L	1	0.20
Sulfate		310	mg/L	1	0.50

Sample: 161875 - 0103011100

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC07992	Date Analyzed:	1/5/01
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB06977	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
pH	[1]	7.3	s.u.	1	1

[1] Sample run out of holding time

Sample: 161876 - 0103011119

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC07912	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06919	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		136	mg/L as CaCo3	1	1
Total Alkalinity		136	mg/L as CaCo3	1	1

Sample: 161876 - 0103011119

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC07914	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06921	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		1500	μMHOS/cm	1	

Sample: 161876 - 0103011119

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC08826	Date Analyzed:	2/6/01
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB06937	Date Prepared:	1/9/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		153	mg/L	1	0.50
Dissolved Magnesium		25	mg/L	1	0.50
Dissolved Potassium		4.9	mg/L	1	0.50
Dissolved Sodium		95	mg/L	1	0.50

Sample: 161876 - 0103011119

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC07908	Date Analyzed:	1/5/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06916	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
CL		270	mg/L	1	0.50
Fluoride		<1.0	mg/L	1	0.20
Nitrate-N		3.2	mg/L	1	0.20
Sulfate		180	mg/L	1	0.50

Sample: 161876 - 0103011119

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC07992	Date Analyzed:	1/5/01
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB06977	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
pH	[2]	7.5	s.u.	1	1

[2]Sample run out of holding time.

Quality Control Report
Method Blank

Method Blank

QCBatch: QC07908

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Method Blank

QCBatch: QC07912

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Method Blank

QCBatch: QC07914

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		12	μMHOS/cm	

Method Blank

QCBatch: QC08826

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.05	mg/L	0.50
Dissolved Magnesium		<0.05	mg/L	0.50
Dissolved Potassium		<0.05	mg/L	0.50
Dissolved Sodium		<0.05	mg/L	0.50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

LCS

QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.40	mg/L	1	2.50	<0.2	96		80 - 120	20

LCSD QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.39	mg/L	1	2.50	<0.2	95	0	80 - 120	20

LCS QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1015	mg/L	1	1000	<0.05	101		75 - 125	20
Dissolved Magnesium		1022	mg/L	1	1000	<0.05	102		75 - 125	20
Dissolved Potassium		1060	mg/L	1	1000	<0.05	106		75 - 125	20
Dissolved Sodium		1063	mg/L	1	1000	<0.05	106		75 - 125	20

LCSD QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1025	mg/L	1	1000	<0.05	102	1	75 - 125	20
Dissolved Magnesium		1040	mg/L	1	1000	<0.05	104	2	75 - 125	20
Dissolved Potassium		1061	mg/L	1	1000	<0.05	106	0	75 - 125	20
Dissolved Sodium		1070	mg/L	1	1000	<0.05	107	1	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

MS QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		32.03	mg/L	1	12.50		99		82 - 100	25
Fluoride		2.75	mg/L	1	2.50	0.44	92		81 - 109	20
Nitrate-N		4.88	mg/L	1	2.50		98		74 - 111	20
Sulfate		14.73	mg/L	1	12.50		97		81 - 106	20

MSD QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		31.938	mg/L	1	12.50		98	1	82 - 100	25

Continued ...

... Continued

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.79	mg/L	1	2.50	0.44	94	2	81 - 109	20
Nitrate-N		4.85	mg/L	1	2.50		97	1	74 - 111	20
Sulfate		14.92	mg/L	1	12.50		99	2	81 - 106	20

MS QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1150	mg/L	1	1000	153	115		75 - 125	20
Dissolved Magnesium		1043	mg/L	1	1000	25	104		75 - 125	20
Dissolved Potassium		1080	mg/L	1	1000	4.9	108		75 - 125	20
Dissolved Sodium		1154	mg/L	1	1000	95	115		75 - 125	20

MSD QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1166	mg/L	1	1000	153	116	2	75 - 125	20
Dissolved Magnesium		1052	mg/L	1	1000	25	105	1	75 - 125	20
Dissolved Potassium		1066	mg/L	1	1000	4.9	106	1	75 - 125	20
Dissolved Sodium		1164	mg/L	1	1000	95	116	1	75 - 125	20

Quality Control Report
Duplicate Samples

Duplicate QC Batch: QC07912

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Bicarbonate Alkalinity		143	145	mg/L as CaCo3	1	1	11
Total Alkalinity		143	145	mg/L as CaCo3	1	1	11

Duplicate QC Batch: QC07914

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		2170	2200	µMHOS/cm	1	1	20

Duplicate

QC Batch: QC07992

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		8.8	8.8	s.u.	1	0	1.2

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QC Batch: QC07908

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.39	95	80 - 120	1/5/01

ICV (1)

QC Batch: QC07908

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.38	95	80 - 120	1/5/01

CCV (1)

QC Batch: QC07912

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/8/01
Carbonate Alkalinity		mg/L as CaCo3	0	224	0	80 - 120	1/8/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	12	0	80 - 120	1/8/01
Total Alkalinity		mg/L as CaCo3	250	236	94	80 - 120	1/8/01

ICV (1)

QC Batch: QC07912

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/8/01
Carbonate Alkalinity		mg/L as CaCo3	0	228	0	80 - 120	1/8/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	11	0	80 - 120	1/8/01
Total Alkalinity		mg/L as CaCo3	250	239	95	80 - 120	1/8/01

CCV (1)

QC Batch: QC07914

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1416	100	80 - 120	1/8/01

ICV (1) QC Batch: QC07914

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1401	99	80 - 120	1/8/01

CCV (1) QC Batch: QC07992

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	1/5/01

ICV (1) QC Batch: QC07992

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	1/5/01

CCV (1) QC Batch: QC08826

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Magnesium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Potassium		mg/L	25	26.1	104	75 - 125	2/6/01
Dissolved Sodium		mg/L	25	25.2	100	75 - 125	2/6/01

ICV (1) QC Batch: QC08826

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.9	99	75 - 125	2/6/01
Dissolved Magnesium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Potassium		mg/L	10	26.5	106	75 - 125	2/6/01
Dissolved Sodium		mg/L	10	25.3	101	75 - 125	2/6/01

161875-76

Page ____ of ____

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

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0101050 8

Company Name: NMOCD
Phone #: (505) 393-6161 x. 113
Address: (Street, City, Zip) 1625 N. French Dr. Hobbs, NM 88240
Fax #: 505-393-0720
Contact Person: Donna Williams / Gary Wink
Invoice to: (If different from above) EMNRD - OCD Bill Olson 1220 St. Francis Dr. Santa Fe, NM 87505
Project #:
Project Name: Pierce
Project Location:
Sampler Signature: Gary Wink

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	$NaHSO_4$	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
161875	0103011100	1		X									X		01-03-01	11:00
76	0103011119	1		X									X		01-03-01	11:19

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Cations & Anions (Contact # 024)	Nitrates (Contact # 025)	Turn Around Time if different from standard	Hold
															X	X		
															X	X		

Relinquished by: Donna Williams Date: 01-04-01 Time: 9:00 A.M.
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Beasley 1-05-01 10:00

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

ORIGINAL COPY

LAB USE ONLY

Intact (Y) / N
Headspace Y / N
Temp 3° °
Log-in Review MS

REMARKS:
Called Donna Williams
We are not running TDS or (025) on list.
not enough sample
1-5-01 VH
2/16/01

Carrier # TAMKO 902-501-970-7

Price, Wayne

From: Price, Wayne

Sent: Monday, March 05, 2001 10:18 AM

To: Wink, Gary

Cc: Anderson, Roger; Olson, William

Subject: Rickey Pierce water well samples

Dear Gary:

I will set up a file in Santa Fe for Pierce Ranch water analysis. Please make sure you include the water well # or name and give location on the Chain-of- Custody. Also can you give me an estimate of number of wells to be sampled.

For Example: On Chain-of-Custody OGRID 195513

Project Name: Pierce Ranch – 1R0300

Project #: Well #5 or well west of house etc.

Project location: UL sec-TS-R or give footage etc.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Donna Williams
OCD Hobbs Office
1625 N. French Drive
Hobbs, NM 88240

Report Date: February 7, 2001

Order ID Number: A01010508

Project Number: N/A
Project Name: N/A
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
161875	0103011100	Water	1/3/01	11:00	1/5/01
161876	0103011119	Water	1/3/01	11:19	1/5/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 161875 - 0103011100

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC07912	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06919	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		145	mg/L as CaCo3	1	1
Total Alkalinity		145	mg/L as CaCo3	1	1

Sample: 161875 - 0103011100

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC07914	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06921	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		2200	μMHOS/cm	1	

Sample: 161875 - 0103011100

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC08826	Date Analyzed:	2/6/01
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB06937	Date Prepared:	1/9/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		146	mg/L	1	0.50
Dissolved Magnesium		27	mg/L	1	0.50
Dissolved Potassium		9.0	mg/L	1	0.50
Dissolved Sodium		94	mg/L	1	0.50

Sample: 161875 - 0103011100

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC07908	Date Analyzed:	1/5/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06916	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
CL		270	mg/L	1	0.50
Fluoride		<1.0	mg/L	1	0.20
Nitrate-N		49	mg/L	1	0.20
Sulfate		310	mg/L	1	0.50

Sample: 161875 - 0103011100

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC07992	Date Analyzed:	1/5/01
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB06977	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
pH	[1]	7.3	s.u.	1	1

[1] Sample run out of holding time

Sample: 161876 - 0103011119

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC07912	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06919	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		136	mg/L as CaCo3	1	1
Total Alkalinity		136	mg/L as CaCo3	1	1

Sample: 161876 - 0103011119

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC07914	Date Analyzed:	1/8/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06921	Date Prepared:	1/8/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		1500	μMHOS/cm	1	

Sample: 161876 - 0103011119

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC08826	Date Analyzed:	2/6/01
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB06937	Date Prepared:	1/9/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		153	mg/L	1	0.50
Dissolved Magnesium		25	mg/L	1	0.50
Dissolved Potassium		4.9	mg/L	1	0.50
Dissolved Sodium		95	mg/L	1	0.50

Sample: 161876 - 0103011119

Analysis:	Ion Chromatography (IC)	Analytical Method:	E 300.0	QC Batch:	QC07908	Date Analyzed:	1/5/01
Analyst:	JS	Preparation Method:	N/A	Prep Batch:	PB06916	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
CL		270	mg/L	1	0.50
Fluoride		<1.0	mg/L	1	0.20
Nitrate-N		3.2	mg/L	1	0.20
Sulfate		180	mg/L	1	0.50

Sample: 161876 - 0103011119

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC07992	Date Analyzed:	1/5/01
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB06977	Date Prepared:	1/5/01

Param	Flag	Result	Units	Dilution	RDL
pH	[2]	7.5	s.u.	1	1

[2]Sample run out of holding time.

Quality Control Report
Method Blank

Method Blank

QCBatch: QC07908

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Method Blank

QCBatch: QC07912

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Method Blank

QCBatch: QC07914

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		12	μMHOS/cm	

Method Blank

QCBatch: QC08826

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.05	mg/L	0.50
Dissolved Magnesium		<0.05	mg/L	0.50
Dissolved Potassium		<0.05	mg/L	0.50
Dissolved Sodium		<0.05	mg/L	0.50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

LCS

QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.40	mg/L	1	2.50	<0.2	96		80 - 120	20

LCSD QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.39	mg/L	1	2.50	<0.2	95	0	80 - 120	20

LCS QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1015	mg/L	1	1000	<0.05	101		75 - 125	20
Dissolved Magnesium		1022	mg/L	1	1000	<0.05	102		75 - 125	20
Dissolved Potassium		1060	mg/L	1	1000	<0.05	106		75 - 125	20
Dissolved Sodium		1063	mg/L	1	1000	<0.05	106		75 - 125	20

LCSD QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1025	mg/L	1	1000	<0.05	102	1	75 - 125	20
Dissolved Magnesium		1040	mg/L	1	1000	<0.05	104	2	75 - 125	20
Dissolved Potassium		1061	mg/L	1	1000	<0.05	106	0	75 - 125	20
Dissolved Sodium		1070	mg/L	1	1000	<0.05	107	1	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

MS QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		32.03	mg/L	1	12.50		99		82 - 100	25
Fluoride		2.75	mg/L	1	2.50	0.44	92		81 - 109	20
Nitrate-N		4.88	mg/L	1	2.50		98		74 - 111	20
Sulfate		14.73	mg/L	1	12.50		97		81 - 106	20

MSD QC Batch: QC07908

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		31.938	mg/L	1	12.50		98	1	82 - 100	25

Continued ...

... *Continued*

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		2.79	mg/L	1	2.50	0.44	94	2	81 - 109	20
Nitrate-N		4.85	mg/L	1	2.50		97	1	74 - 111	20
Sulfate		14.92	mg/L	1	12.50		99	2	81 - 106	20

MS QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1150	mg/L	1	1000	153	115		75 - 125	20
Dissolved Magnesium		1043	mg/L	1	1000	25	104		75 - 125	20
Dissolved Potassium		1080	mg/L	1	1000	4.9	108		75 - 125	20
Dissolved Sodium		1154	mg/L	1	1000	95	115		75 - 125	20

MSD QC Batch: QC08826

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1166	mg/L	1	1000	153	116	2	75 - 125	20
Dissolved Magnesium		1052	mg/L	1	1000	25	105	1	75 - 125	20
Dissolved Potassium		1066	mg/L	1	1000	4.9	106	1	75 - 125	20
Dissolved Sodium		1164	mg/L	1	1000	95	116	1	75 - 125	20

Quality Control Report
Duplicate Samples

Duplicate QC Batch: QC07912

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	11
Bicarbonate Alkalinity		143	145	mg/L as CaCo3	1	1	11
Total Alkalinity		143	145	mg/L as CaCo3	1	1	11

Duplicate QC Batch: QC07914

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		2170	2200	µMHOS/cm	1	1	20

Duplicate

QC Batch: QC07992

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		8.8	8.8	s.u.	1	0	1.2

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QC Batch: QC07908

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.39	95	80 - 120	1/5/01

ICV (1)

QC Batch: QC07908

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	2.50	2.38	95	80 - 120	1/5/01

CCV (1)

QC Batch: QC07912

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/8/01
Carbonate Alkalinity		mg/L as CaCo3	0	224	0	80 - 120	1/8/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	12	0	80 - 120	1/8/01
Total Alkalinity		mg/L as CaCo3	250	236	94	80 - 120	1/8/01

ICV (1)

QC Batch: QC07912

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	1/8/01
Carbonate Alkalinity		mg/L as CaCo3	0	228	0	80 - 120	1/8/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	11	0	80 - 120	1/8/01
Total Alkalinity		mg/L as CaCo3	250	239	95	80 - 120	1/8/01

CCV (1)

QC Batch: QC07914

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1416	100	80 - 120	1/8/01

ICV (1) QC Batch: QC07914

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1413	1401	99	80 - 120	1/8/01

CCV (1) QC Batch: QC07992

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	1/5/01

ICV (1) QC Batch: QC07992

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	1/5/01

CCV (1) QC Batch: QC08826

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Magnesium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Potassium		mg/L	25	26.1	104	75 - 125	2/6/01
Dissolved Sodium		mg/L	25	25.2	100	75 - 125	2/6/01

ICV (1) QC Batch: QC08826

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.9	99	75 - 125	2/6/01
Dissolved Magnesium		mg/L	25	25.3	101	75 - 125	2/6/01
Dissolved Potassium		mg/L	10	26.5	106	75 - 125	2/6/01
Dissolved Sodium		mg/L	10	25.3	101	75 - 125	2/6/01

161875-76

Page ____ of ____

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

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0101 0508

Company Name: NMOCD
Phone #: (505) 393-6161 x. 113
Address: (Street, City, Zip) 1625 N. French Dr. Hobbs, NM 88240
Fax #: 505-393-0720
Contact Person: Donna Williams / Gary Wink
Invoice to: (If different from above) ENMRD - OCD Bill Olson 1220 St. Francis Dr Santa Fe, NM 87505
Project #:
Project Name: Pierce
Project Location:
Sampler Signature: Gary Wink

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
161875	0103011100	1		X									X		01-03-01	11:00
76	0103011119	1		X									X		01-03-01	11:19

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	CATIONS & ANIONS (Contract # 094)	ALKALINITY (CONTRACT # 025)	Turn Around Time if different from standard	Hold
															X	X		
															X	X		

Relinquished by: Donna Williams Date: 01-04-01 Time: 9:00 A.M.
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Vicki Crowley 1-05-01 10:00

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

ORIGINAL COPY

LAB USE ONLY

Intact (Y) / N
Headspace Y / N
Temp 3° °
Log-in Review MS

REMARKS:
Called Donna Williams
We are not running TDS or (025) on list.
not enough sample
1-5-01 VH
2/16/01

Carrier # TAMTO 902-501-970-7

Cation-Anion Balance Sheet

DATE: 2/15/01 MB

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate ppm	Fluoride ppm	TDS ppm	EC µMHOs/cm
161875	146	27	94	9	145	310	270	49	0		2200
161876	153	25	95	4.9	136	180	270	3.2	0		1500

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate in meq/L	Fluoride in meq/L	**Cations in meq/L**	**Anions in meq/L**	**Percentage Error**
161875	7.29	2.22	4.09	0.23	2.90	6.45	7.62	3.49811	0	13.83	20.47	38.7372556
161876	7.63	2.06	4.13	0.13	2.72	3.75	7.62	0.228448	0	13.95	14.31	2.568459877

	EC/Cation	EC/Anion					TDS/EC	TDS/Cat	TDS/Anion	
161875	1382.645	2046.901	range	1980	to	2420	0.00	0.00	0.00	needs to be 0.55-0.77
161876	1394.9792	1431.2748	range	1350	to	1650	0.00	0.00	0.00	needs to be 0.55-0.77

The cations and anions were reanalyzed for both samples in order to achieve a lower percent error for sample 161875. The rerun results were consistent with the initial results. The high percent error could be due to other analytes not detected in this run.

cc: Rickey Pearce

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

Attn: Donna Williams

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD INTER-OFFICE CORRESPONDENCE

TO: Jerry Sexton-NMOCD District I Supervisor

From: Wayne Price-Environmental Engineer Wayne Price

Date: March 13, 1997

Reference: Field Trip Report on February 21, 1997.

Subject: Pearce Trust Ranch- Rickey Pearce operator/owner

Comments:

Mr. Pearce had requested assistance from the NMOCD District I office to sample ground water from some of the ranch water wells and to inspect some of the oil & gas operations in and near the area of his ranch operations.

As indicated to me, Mr. Pearce's primary concern is ground water contamination from oil & gas activities which will or have affected his ranch operations and future value of his property. He is requesting that the NMOCD ask the operators to clean up their leaks and spills to protect his ground water and to protect his stock and wildlife in the area.

Please find below my findings, conclusions, and recommendations for this area.

Pearce Ranch Water Wells:

1. se/4 nw/4 9-11-33; Sampled old well bore using PE bailer. Water is clear, no olfactory, TDS values were 1400-1700 umhos, Chlorides were 710 ppm. Depth to water is approximately 30-40 feet deep. Well was not purged and only the top was sampled. According to Mr. Pearce this well was contaminated a number of years ago and they had to quit using it as a stock tank.

2. Second well sampled was located west of the above well. Sampled with PE Bailer. Depth to water is approximately 30-33ft deep. This water was contaminated with black suspended solids with a strong sewage smell. There was also some hair found in this water, possibly from a dead animal. The TDS was measured and found to be around 600 umhos.

3. Third well sampled was a well and stock tank located nearby (400 yds.) southeast of the first well sampled. This water from the well is very clear and potable. Sample was taken from the end of pipe. The TDS was measured at 300 umhos.

Conclusions/recommendations:

The water well located in se/4 nw/4 of 9-11-33 appears to be contaminated. Therefore in keeping with our NMOCD procedure, I recommend that the NMOCD Environmental Bureau be notified and handle this ground water contamination case.

The second water well appears to have a bacteria contamination. I recommend that Mr. Pearce contact the NMED on how to properly clean this well for future use.

The third well requires no action, However this well appears to be down gradient of the first well that is contaminated and in close proximity (400 yds).

Tipperary Locations and Pits.

Several of the Tipperary locations were visited in the area. Most of these locations have unlined pits. Some of the pits have been covered with signs of oil seeping out of them. Some are still open. There were a few that was visited that showed signs of re-entry for closure and three of the sites that had recent bore hole cuttings.

One Tipperary tank battery (St. NBN No. 1 se/sw sec 16-Ts 11s-R33e) showed signs of a recent leak. The soil was visually contaminated and had a mild to strong hydrocarbon odor. Took pictures.

Conclusions/recommendations:

Tipperary has been in the process of closing several pits in this area. Tipperary submitted pit closure information in December of 1996 and on February 22, 1997 the NMOCD District office received a copy of Tipperary's notification that they had encountered ground water in several of the soil borings during their site assessment.

Therefore per NM WQCC regulations the NMOCD Environmental Bureau will handle this remediation plan.

As for the contaminated soil found at the Tipperary battery st. NBN No. 1 se/sw sec 16-Ts 11s-R33e it is my recommendation that the District office ask tipperary to clean-up the site per NMOCD guidelines or another alternate method approved by the District Supervisor. (Spill report attached)

Burro Pipeline Corp.

The Burro Pipeline Water Disposal System Satellite #1 located in NW/4 SW/4 sec 22-Ts 11s-R33e was visited. This system consist of pumps and a medium to large lined netted surface pit. The pit was approximately 20 % full of water. The net is in need of repair. Took picture.

Conclusions/recommendations:

I recommend this site be evaluated to determine if it should be permitted under NMOCD Rule 711.

Penroc Tank Battery Location: (Now Saga Petroleum LP Co.)

Mr. Pearce showed me the Cabot state C N0.1- well no.1 tank battery located in sw/4 nw/4 sec. 14-Ts11s-R33e. where there had been a spill. There was visual soil contamination inside of the dike area and outside. Took pictures.

Conclusions/recommendations:

The NMOCD District office has on record a spill report on 1/23/96 for this site. The spill report reflected that 329 bbls of crude oil was released with only 20 bbls recovered. It indicated "All fluids stayed inside Earthen Dike. Picked up 20 barrels of oil remaining soaked up in caliche." (Spill report attached)

It is my recommendation that the NMOCD District office ask the current owner to clean-up the site per NMOCD guidelines or another alternate method approved by the District Supervisor.

Old Abandon Site:

Mr. Pearce showed me an old abandon site which still has some debris on site such as concrete foundation, miscellaneous pipe, and an area which appears to be oily stained soil. Took pictures. Exact location was not identified at this time.

Conclusions/recommendations:

Mr. Pearce has had an ongoing discussion on this issue with Mr. Gary Wink NMOCD Field Supervisor. According to Mr. Pearce, Gary has obtained information that pre-dates Mr. Pearce's ownership of the ranch which reflects that the previous owner of the ranch had received compensation for this site.

I recommend that NMOCD copy Mr. Pearce on this correspondence or provide him information as how me may obtain this information for his records.

ELK Oil Location:

Mr. Pearce showed me an active open unlined pit (un-netted) at the Elk Oil Co. RR St. #1 sec 7-Ts11s-R33e. This pit contained oil, BS&W, and solid debris, buckets, etc. Mr. Pearce indicated this is a relative new pit. The usage of this type of pit appears to violate NMOCD rule 18. Took Pictures.

On February 27, 1997 I received a call from Mr. Pearce indicating a contractor was covering the pit as is without removing any of the oily material.

On March 6, 1997 I inspected the covered pit. I took a sample three feet below the surface of the pit using an EPA type trier sample device and found free water/oil. Ran a BTEX headspace test using a PID (photoionization detector) and the results were 1225 ppm which is twelve times the limits set in the guidelines. As noted in the water well sampling the ground water in this area is quite shallow.

Conclusions/recommendations:

The NMOCD District I office has deferred this pit closure to the NMOCD Environmental Bureau. It is my understanding that Mr. Olson of the NMOCD Environmental Bureau is handling the closure of this pit. Mr. Olson can be contacted at 505-827-7154.

cc: Rickey Pearce-Ranch Owner
Gary Wink-NMOCD District I Field Rep. II
Roger Anderson-Environmental Bureau Chief
Bill Olson-NMOCD Hydrogeologist-Environmental Bureau
NMOCD Environmental files

attachments-2 spill reports.
copy of pictures.

DISTRICT I
P.O.Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719
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 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

OPERATOR: Tipperary Oil & Gas Corp.					ADDRESS: 800 N. Marienfeld, Midland, TX. 79701	TELEPHONE #: (915) 683-5201	
REPORT OF	FIRE	BREAK	SPILL	LEAK: X	BLOWOUT	OTHER*	
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTRY	PIPE LINE	GASO PLNT	OIL RFY	OTHER*

FACILITY NAME: State NBN

LOCATION OF FACILITY Qtr/Qtr Sec. or Footage	SEC.	TWP.	RGE.	COUNTY
Unit N 660 FSL & 1982 FWL	16	11S	33E	Lea

DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK: Approximately 18 miles West of Tatum

DATE AND HOUR OF OCCURRENCE: Approx. 4:00AM 12/18/96				DATE AND HOUR OF DISCOVERY: 12:00PM MST 12/18/96	
WAS IMMEDIATE NOTICE GIVEN?	YES: X	NO	NOT REQUIRED	IF YES, TO WHOM: Bonnie Prichard	
BY WHOM: W. Jeffrey Sparks				DATE AND HOUR: 1:45 MST 12/18/96	
TYPE OF FLUID LOST: Crude Oil				QUANTITY OF LOSS: 66 Bbls.	VOLUME RECOVERED: None
DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO: X	QUANTITY		

IF YES, DESCRIBE FULLY**

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**

Hole came in tank about 9 inches from bottom. Hole about 1" in diameter. The tank was emptied of all fluids.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**

The affected area was T-shaped. It was 100' x 20' along the top and 150' x 20' along the length of the T. The affected soil was removed and replaced with clean dirt.

DESCRIPTION OF AREA	FARMING	GRAZING: X	URBAN	OTHER*			
SURFACE CONDITIONS	SANDY	SANDY LOAM	CLAY	ROCKY: X	WET	DRY	SNOW

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**

Overnight temperature about 5 degrees F. Daytime temperature about 20 degrees. No precipitation.

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

SIGNED: W. Jeffrey Sparks PRINTED NAME AND TITLE: W. Jeffrey Sparks DATE: 12/20/96

*SPECIFY

DISTRICT I
P.O.Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719
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 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

OPERATOR: PENROC OIL CORPORATION					ADDRESS: P. O. Box 5970, HOBBS, NM 88241-5970		TELEPHONE NO.: 505-397-3596
REPORT OF	FIRE	BREAK	SPILL X	LEAK	BLOWOUT	OTHER*	
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTRY X	PIPE LINE	GASO PLNT	OIL RFY	OTHER*
FACILITY NAME: CABOT "C"							
LOCATION OF FACILITY Qtr/Qtr Sec. or Footage: S/2 NW/4					SEC 14	TWP 11S	RGE 33E COUNTY LEA
DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK: 20 MILES WEST OF TATUM, NM							
DATE AND HOUR OF OCCURRENCE: 1/22/96 @ 2:00 PM					DATE AND HOUR OF DISCOVERY: 1/22/96 @ 2:30 PM		
WAS IMMEDIATE NOTICE GIVEN?	YES	NO X	NOT REQUIRED		IF YES, TO WHOM		
BY WHOM					DATE AND HOUR		
TYPE OF FLUID LOST: CRUDE OIL					QUANTITY OF LOSS: 329		VOLUME RECOVERED: 20
DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO X	QUANTITY				

IF YES, DESCRIBE FULLY**

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**
4" x 2" SWAGE IN CIRCULATING LINE LEAKED. REPLACED SWAGE AND PICKED UP OIL AND CLEANED UP LOCATION.
VERBAL NOTICE GIVEN TO PONNIE AT ODD @ 7:05 AM 1/23/96.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**
ALL FLUIDS STAYED INSIDE EARTHEN DIKE. PICKED UP 20 BARRELS OF OIL REMAINING SOAKED UP IN CALICHE.

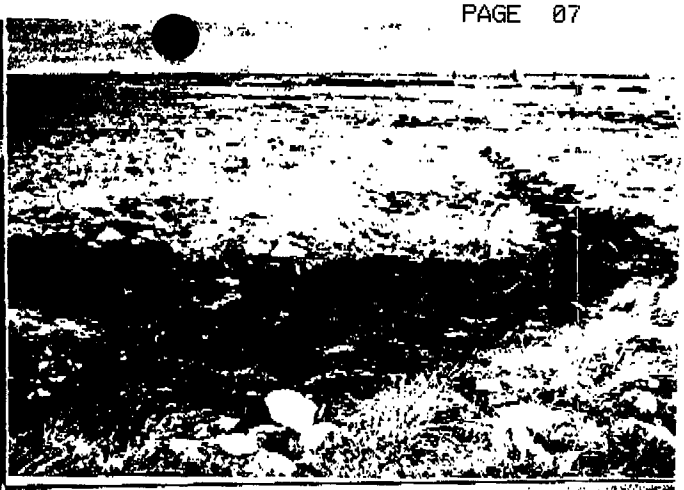
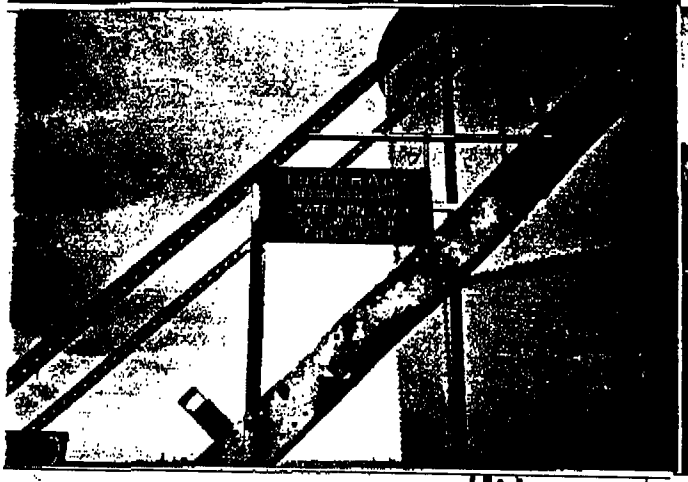
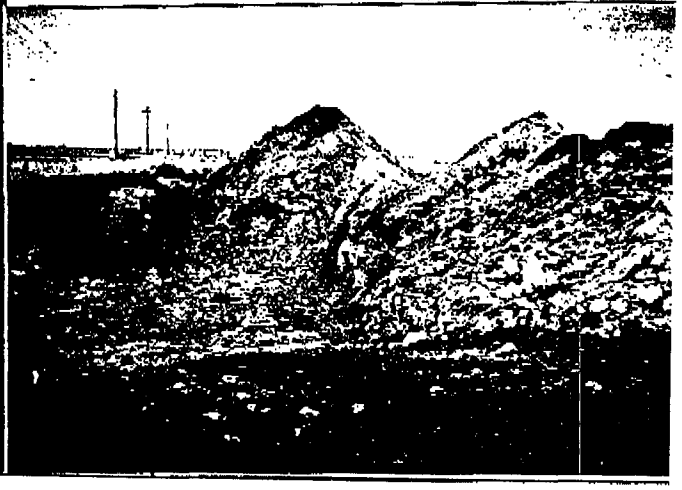
DESCRIPTION OF AREA	FARMING	GRAZING	URBAN	OTHER* INSIDE DIKE			
SURFACE CONDITIONS	SANDY	SANDY LOAM	CLAY X	ROCKY	WET	DRY	SNOW

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**
TEMPERATURE 50° AND DRY

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

SIGNED: [signature] PRINTED NAME AND TITLE: M. Y. MERCHANT, PRESIDENT DATE: 1/23/96

*SPECIFY **ATTACH ADDITIONAL SHEETS IF NECESSARY.

2/21/97 - PEARCE RANCH AREA LEG 04177

TIPPERARY LOCATION

≈ 1:15 pm

BY W PRICE

2/21/97 - PEARCE RANCH AREA

≈ 12:30 pm

"OLD PIT" LOOKING NE AREA

of OLD WINDMILL - SAMPLED WATER

≈ 35-40' BGS CLEAR WATER - 1400 MARKS - 17mm

TIPPERARY COLLER #1

SE/NW 7-11-33

BY: W PRICE

WITNESS: RICKY PEARCE -

2/21/97 - PEARCE RANCH AREA LEG 04177

≈ 2:00 pm.

ST NBN #1

TIPPERARY CORP.

SE/SW SEC 16-T11S-R33E

LOOK ≈ EAST

BY: W PRICE / R PEARCE

2/21/97 - "PEARCE RANCH AREA" LEG 04177

TIPPERARY LOCATION

NBA COM #1

SE/NE 20-11-33

LOOKING EAST

BY WAYNE PRICE

NMOCD -

WITNESS: R. PEARCE

2/21/97 - PEARCE RANCH LEG 04177

≈ 2:00 pm

ST NBN #1

TIPPERARY CORP.

SE/SW 16-11-33

LOOKING ≈ SW

"BSW pit - FOR GROUND SHOWS FRESH DRILL CUTTINGS of BORE HOLE"

BY: W PRICE / R PEARCE

2/21/97 "PEARCE RANCH AREA" LEG 0411;

≈ 1:45 pm.

"TIPPERARY LOCATION"

CLOSE TO HWY

EAST "A" 1

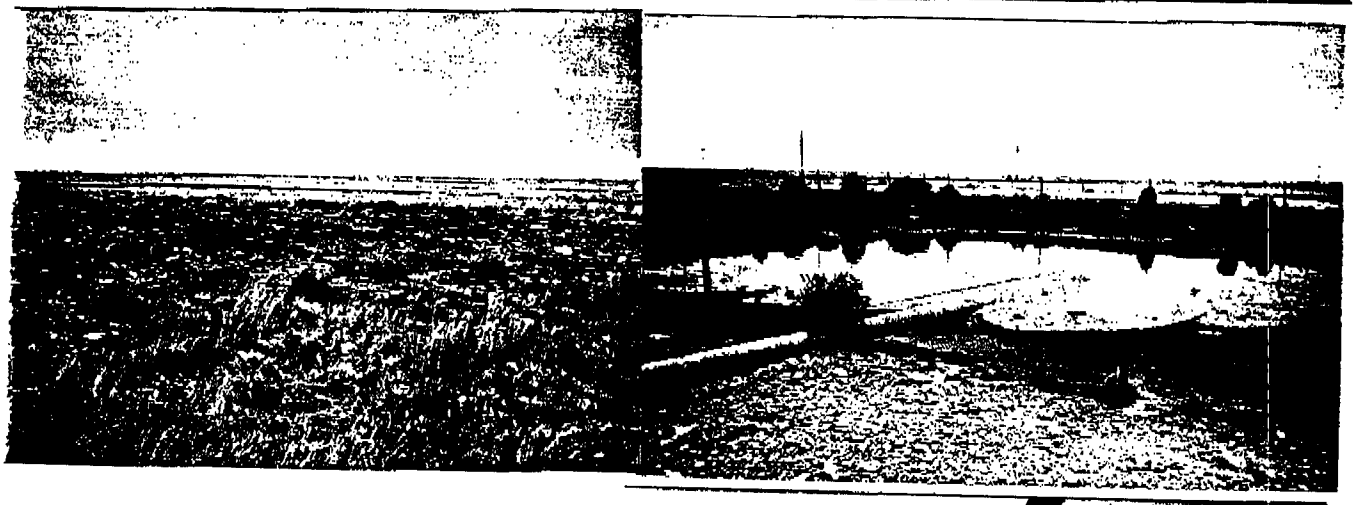
BSW pit

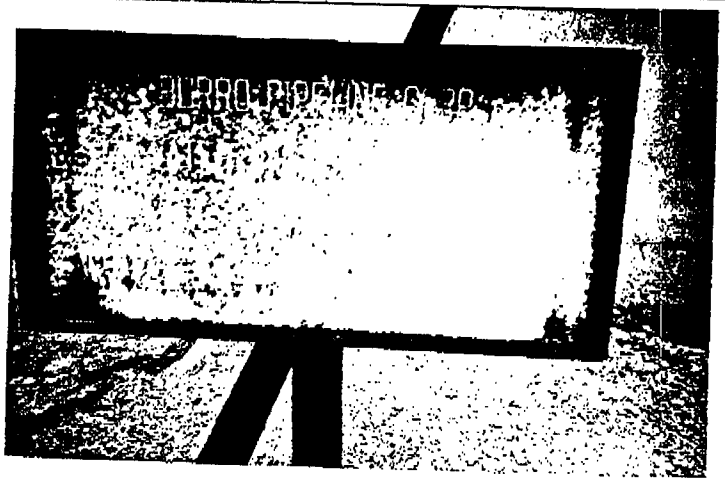
FOREGROUND SHOWS AREA WHERE

RECENT BORE HOLE DRILLED"

R. PEARCE WITNESS DRILLING!

BY W PRICE - NMOCD





2/21/97 NEG 041177
≈ 2:45 pm
PEARCE RANCH
OLD SITE

2/21/97 PEARCE RANCH NEG 041177
≈ 2:00 pm
ST NBN #1
TIMBERLAY CORP.
SE/SW 16-11-33
LOOK AT SOUTH
"OIL STAIN SOIL"
BY W PRICE / R PEARCE

2/21/97
≈ 2:45 pm
PEARCE RANCH
"OLD SITE"

NEG 041177

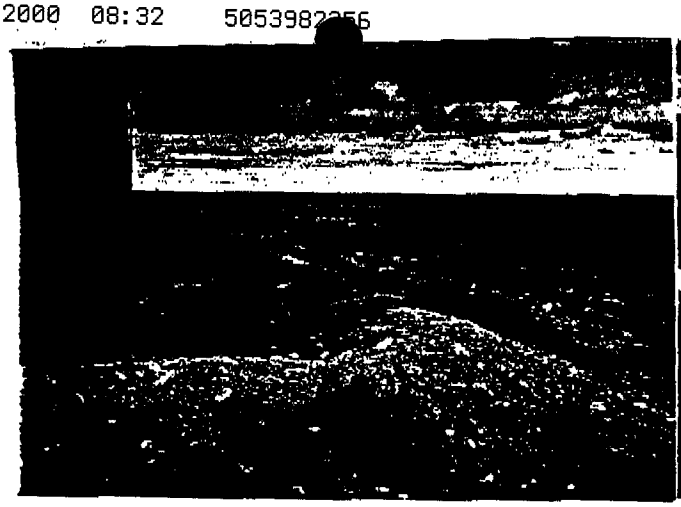
2/21/97 -
≈ 2:30 pm
BURRO PIPELINE CORP.
WASTE DISPOSAL SYS.
SAT #1
NW/4 SW/4 22-11-33
"NEL DOWN TO WATER"
"NO OIL"

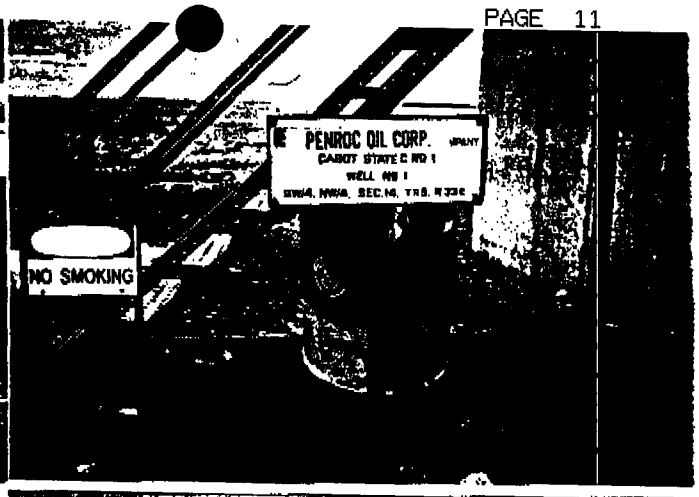
NEG 041177

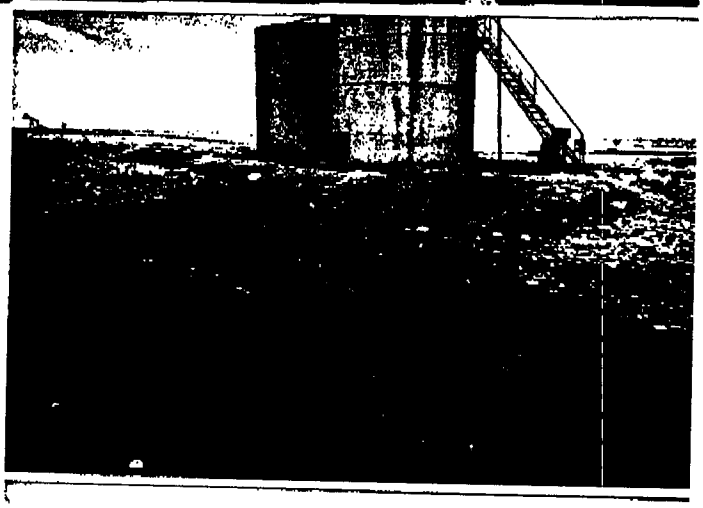
2/21/97
≈ 2:30
BURRO PIPELINE
SAT #1

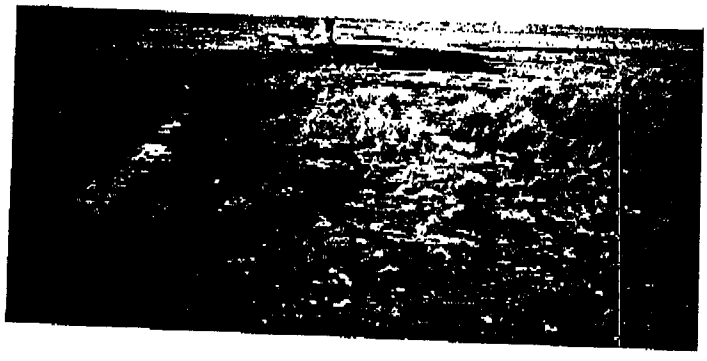
BY W PRICE

NEG 041177




PENROC OIL CORP.
NO SMOKING





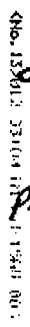
2/21/97 - PEARCE RANCH NE4 C4H17

≈ 2:50 PM

PENROC CABOT ST C #1

LOOKING NORTH

BY: W PRICE / R. PEARCE



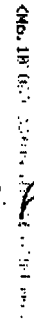
2/21/97 - PEARCE RANCH

≈ 2:50 PM

PENROC BATTLEAX

LOOK ≈ EAST

BY: W PRICE / R. PEARCE



2/21/97 - "PEARCE RANCH" NE4 C4H17

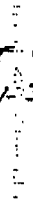
≈ 2:50 PM

PENROC CABOT ST C #1

SW/4 NW/4 14-11-33

LOOKING SW

BY: W PRICE/R. PEARCE



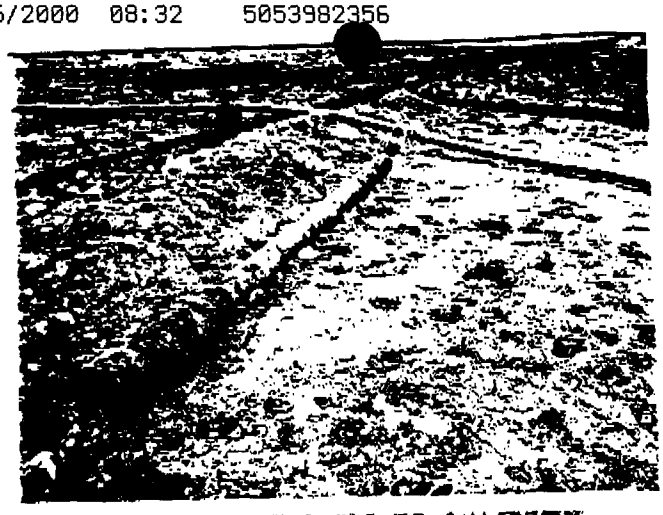
2/21/97 - "PEARCE RANCH" NE4 C4H17

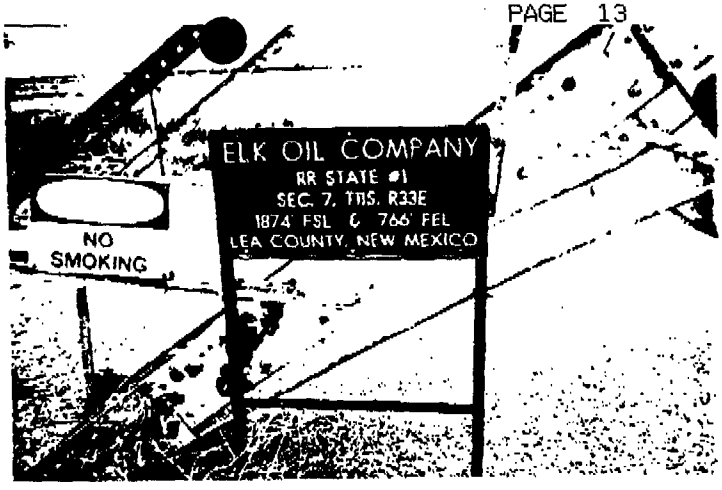
≈ 2:50 PM

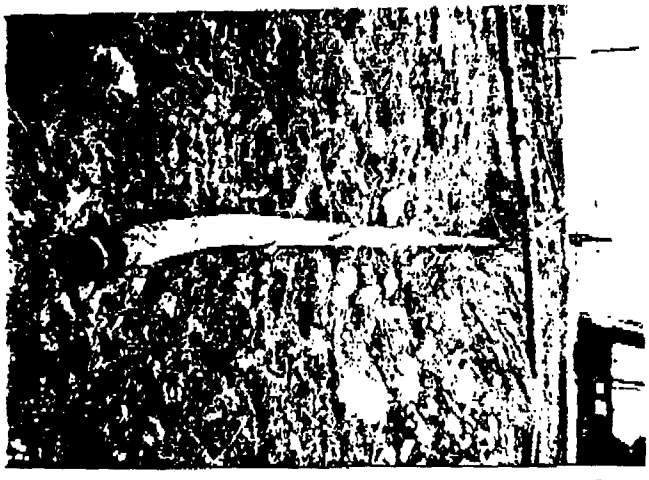
PENROC CABOT ST C #1

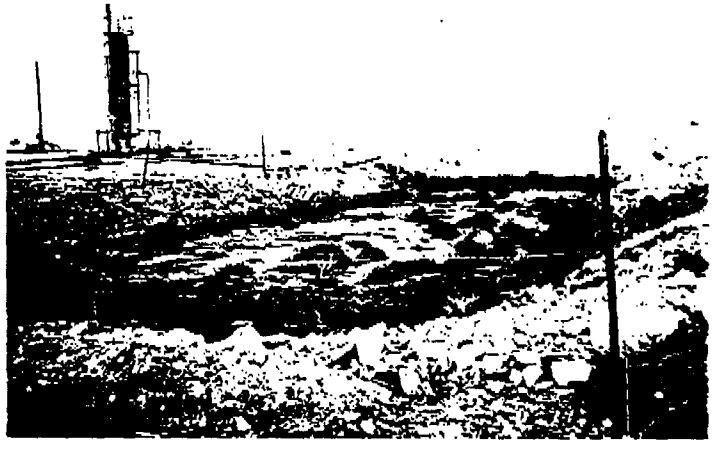
LOOKING NORTH

BY: W PRICE/R. PEARCE




ELK OIL COMPANY
RR STATE #1
SEC. 7, T11S, R33E
1874' FSL & 766' FEL
LEA COUNTY, NEW MEXICO
NO
SMOKING





[illegible]
ELK OIL CO. RR STATE #1
"DRY HOLE MARKER [illegible] HAS BEEN RE-ENTERED"
BY Z PRICE / R. PEARCE

2/21/97 – PEARCE RANCH NES 04178
C 11E 1W
ELK OIL CO. LOOK [illegible]
BY: Z PRICE / R. PEARCE
NMOCD RANCH OWNER

2/21/97 – PEARCE RANCH NES 04178
ELK OIL CO. RR ST #1
STANDING NEAR PIT LOOK S-SE
"FLUIDS HAVE BEEN DISCHARGING FROM WELL"
BY Z PRICE / R. PEARCE

2/21/97 – PEARCE RANCH NES 04178
85 & W PIT – LOOKING S.W
ELK OIL CO
7-11-33
RR ST #1
BY: Z PRICE / R PEARCE

2/21/97 – PEARCE RANCH NES 04178
ELK OIL CO. RR ST #1
LOOK SOUTH
BY: Z PRICE / R. PEARCE

2/21/97 – PEARCE RANCH NES 04178
85 & W PIT – LOOKING N.E.
ELK OIL CO.
1874' FSL 766' FEL RR ST #1
7-11-33
BY: Z PRICE / R PEARCE

Bill Olson / Roger Anderson
Requested pictures!
Gave to Mark Ashley
March 5, 1997

NES 041178