

NM1 - 2

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

9/2003 → 1988



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

September 17, 2003

Mr. Frates Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**Re: Case No. 13167**  
**Application of the New Mexico Oil Conservation Division through the Environmental Bureau Chief to Revoke the Permit of A.L. Daugherty to Operate an Oil Treatment Plant and Disposal Facility and to Release Bond; Chaves County, New Mexico.**

Dear Mr. Seeligson;

By letter dated August 8, 2003, the Division notified you that it intended to revoke the permit for the Daugherty-Crosby Salt Lake Treating Plant and Disposal Facility at Section 19, T8 S, R 30 E; Section 24, T 8 S, R 29 E; and Section 19, T 8 S, R 29 E, NMPM, in Chaves County, New Mexico, if it did not receive a request from you to keep the permit. The Division did not receive such a request. Therefore, the Division is proceeding with a permit revocation hearing.

A hearing will be conducted by a Division hearing examiner in Porter Hall, first floor, 1220 South St. Francis Drive, Santa Fe, New Mexico, at 8:15 a.m. on Thursday, October 9, 2003. At that hearing, you will have an opportunity to oppose the revocation of the permit.

If you have any questions, please do not hesitate to call me at (505) 476-3451.

Very truly yours,

Gail MacQuesten  
Assistant General Counsel

ec: Martyne Kieling



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

August 8, 2003

**Lori Wrotenbery**

Director

**Oil Conservation Division**

Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**VIA CERTIFIED MAIL 7001-1904-0004-3929-9918**

**Re: Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico  
Permitted by Order No. R-5464 issued in Case No. 5922, under date of June 14,  
1977.**

Dear Mr. Seeligson:

The Oil Conservation Division (OCD) has determined that disposal operations have ceased at the referenced facility. Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility submitted a closure plan that was approved by the OCD on January 31, 2003. Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility submitted a closure reports dated June 1, 2003. The closure of the facility was approved by the OCD on August 8, 2003.

In the absence of a response to this letter, the Division will proceed with an application for a hearing to show cause why the permit for this facility should not be revoked. You posted a surety bond, in the amount of \$25,000, No. 111 3268 3654 issued by Fireman's Fund Insurance Co. on April 10, 1989. Upon revocation of the permit this Bond will be released.

Unless the permittee submits to this office, no later than August 29, 2003 a request to keep the permit, the Division will proceed to schedule a permit revocation hearing.

Should you have any questions, please call Martyne Kieling at (505)-476-3488.

Sincerely,

Roger C. Anderson  
Environmental Bureau Chief

ec: David K. Brooks, OCD legal  
OCD Hobbs Arkesia

New Mexico Office of the State Engineer  
Well Reports and Downloads

Township: 08S Range: 31E Sections: \_\_\_\_\_

NAD27 X: \_\_\_\_\_ Y: \_\_\_\_\_ Zone: \_\_\_\_\_ Search Radius: \_\_\_\_\_

County: \_\_\_\_\_ Basin: \_\_\_\_\_ Number: \_\_\_\_\_ Suffix: \_\_\_\_\_

Owner Name: (First) \_\_\_\_\_ (Last) \_\_\_\_\_  Non-Domestic  Domestic  All

Well / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

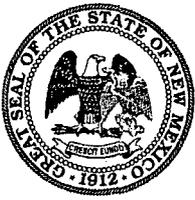
WATERS Menu

Help

WELL / SURFACE DATA REPORT 10/21/2003

DB File Nbr	Use	(acre ft per annum)	Diversion	Owner	Well Number	Source	(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are biggest to smallest)				X	Y	are	ir
RA	DOM				RA		Tw	Rng	Sec	q	q	q	q	q	q	q	q	Zone
RA 08329	DOM		3	GRAVES	RA 08329		08S	31E	06	3	1							
RA 08364	STK		4	FRATES SEELLINGSON	RA 08364		08S	31E	32	1	2	3						
RA 08366	STK		2.5	FRATES SEELLINGSON	RA 08366		08S	31E	19	4	1	1						

Record Count: 3



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

August 8, 2003

**Lori Wrotenbery**

Director

**Oil Conservation Division**

Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**RE: CLOSURE**

**Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico**

Dear Mr. Seeligson:

The New Mexico Oil Conservation Division (OCD) is in receipt Safety & Environmental Solutions, Inc. closure report dated June 1, 2003, for the Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility at the above-referenced location. Based on the closure report and the May 28, 2003 and August 6, 2003 OCD inspection, the OCD has determined that the Daughtery - Crosby Salt Lake treating plant has been remediated to OCD standards and the site has been restored to prevent erosion. **The OCD hereby approves of the closure of Daughtery - Crosby Salt Lake treating plant.**

Please be advised that OCD approval does not relieve Daughtery - Crosby Salt Lake of liability should any remaining contaminants result in pollution of the ground water, surface water or the environment. In addition, OCD approval does not relieve Daughtery - Crosby Salt Lake of the responsibility for compliance with other federal, state, or local laws and/or regulations.

If you have any questions please contact Martyne J. Kieling at 505-476-3488.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Bureau Chief

xc: Artesia OCD  
Bob Allen, Safety & Environmental Solutions, Inc., 703 E. Clinton, Suite 102, Hobbs, NM 88240

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 3:15 Date 8-6-03

Originating Party

Other Parties

Mike Stubblefield  
OCD Artesia District office

Martyn Kiehl  
Environmental Bureau

Subject Daugherty Treating Plant. Mike performed a final inspection  
of the Treatment Area, Lake area, and Disposal pit Area.

Inspection August 6, 2003

Discussion There is no material coming to the surface at the Disposal  
Pit Area. The Lake Area shows just a little contaminated  
material that is made in the heat of the day. Report says  
98% of the Lake material was removed. This is very  
Accurate & looks good.

The Pipeline & Spill Area Along the Slope looks to be in great  
shape even with the rains that they have had. much  
of the hard Asphalts have been broken up ~~and there~~  
with the cross slope grading & piping.

The treatment Area look good also

Conclusions or Agreements Closure is Approved From the District.  
Level. I will Proceede Writing the Closure Approval.  
and then Request that the ORDER Be Released.

Distribution

Signed

Martyn Kiehl

RECEIVED

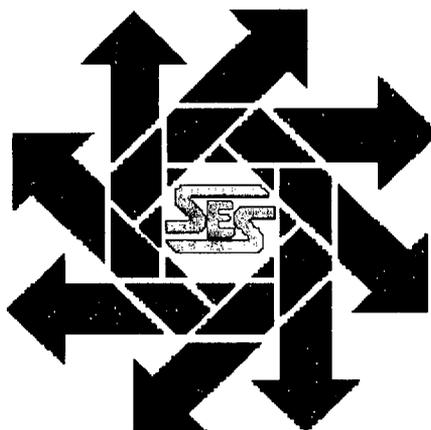
JUN 09 2003

Environmental Bureau  
Oil Conservation Division

**Daughtery – Crosby Salt Lake  
Treating Plant and Disposal Facility  
Closure Report**

**Section 19, Township 8S, Range 30E  
Section 24, Township 8S, Range 30E  
Section 19, Township 8S, Range 29E  
Chaves County, New Mexico**

**June 1, 2003**



*Prepared for:*

**Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, Texas 78209**

*By:*

***Safety & Environmental Solutions, Inc.  
703 E. Clinton Suite 103  
Hobbs, New Mexico 88240  
(505) 397-0510***

## TABLE OF CONTENTS

I.	Background .....	1
II.	Contaminant and Size of Leak .....	1
III	Surface and Ground Water .....	1
IV.	Soils .....	1
V.	Work Performed .....	1
VI.	Figures & Appendices .....	2
	Figure 1 – Vicinity Map.....	3
	Appendix A – Analytical Results.....	4
	Appendix B – Site Photos .....	5

**I. Background**

Safety & Environmental Solutions, Inc. (SESI) was contracted by Frates Seeligson to perform assessment and cleanup services on the area identified as the Daughtery – Crosby Salt Lake Treating Plant and Disposal Facility in the letter from the New Mexico Oil Conservation Division (NMOCD) to Mr. Frates S. Seeligson dated October 22, 2002. The subject area is located in Section 19, Township 8S, Range 30E, Section 24, Township 8S, Range 30E, and Section 19, Township 8S, Range 29E, in Chaves County, New Mexico. The site is situated on the White Lake Ranch privately owned by Mr. Kent Gable. The site was an NMOCD approved treating and reclaiming facility operated from the late 1970s to the late 1980s. The site is currently abandoned.

**II. Contaminant and Size of Leak**

The suspected contaminant is crude oil and produced water associated with the treating and reclaiming facility. The crude oil and produced water is considered exempt oilfield waste. No evidence of other contaminants was observed.

**III. Surface and Ground Water**

There is no protectable groundwater in the area according to the database provided by the New Mexico State Engineer's Office.

**IV. Soils**

The soils in the area are predominantly sand and sandy loam.

**V. Work Performed**

The above referenced letter required that the following areas be addressed at the subject site: Process Area, Flow Lines, Above Ground Tanks, Crosby Salt Lake and Area between Process Area and Crosby Lake.

The closure of each area is detailed below.

**Process Area**

Surface contamination in the form of "hardpan" or well-degraded hydrocarbons was present in the process area. There was no evidence of contamination that would migrate either vertically or horizontally from that area. The hardpan was disced in place and broken into small pieces, which will hasten natural attenuation in the area.

**Flow Lines**

All flowlines were cut into 6' sections and transported to the City of Roswell, solid waste landfill. The total weight of the discarded flowlines was 8.5 tons.

### Above Ground Tanks

The two above ground tanks at the site were removed by Wilbanks Trucking Company of Artesia, New Mexico, who accepted the tanks for disposal. The area where the tanks were located was returned to natural grade.

### Crosby Salt Lake

The hydrocarbon material at the lake was excavated and disposed of onsite at the location near the lake agreed upon by the NMOCD at the last inspection in December 2002. Two disposal trenches were excavated at that location. One trench was 180' long, 25' wide and 18' deep resulting in the removal of 3,900 cubic yards of soil. Approximately 2,167 cubic yards of contaminated material was placed into this pit and the pit was capped with approximately 2,500 cubic yards of clay and sand. The second trench was 180' long, 30' wide and 16' deep resulting in the removal of approximately 4,160 cubic yards of soil. Approximately 2,600 cubic yards of contaminated material was placed into this pit and the pit was capped with approximately 2,500 cubic yards of clay and sand. The remaining soil that was excavated from the pits was used to build a roadway from the lakebed to the disposal site. This road was ripped and left in place after completion of the project.

SESI retrieved composite sample of the Dunes and the Discard Area. The samples were preserved on ice and sent under chain of custody to Cardinal Laboratories of Hobbs, New Mexico. The samples were analyzed for TPH (EPA method SE-846 8015 M), BTEX (EPA method SW-846 8260, and Chlorides (EPA method 4500-Cl<sup>-</sup>B). The results of the analysis are as follows:

ID	GRO	DRO	Cl <sup>-</sup>	Benzene	Toluene	Ethyl Benzene	Total Xylenes
D.C. Comp #1 Dunes	<10.0	233	5520	<0.005	<0.005	<0.005	<0.015
D.C. Comp #2 Dunes	<10.0	42.1	1020	<0.005	<0.005	<0.005	<0.015
D.C. Discard Area	<10.0	271	160	<0.005	<0.005	<0.005	<0.015

### Area between Process Area and Crosby Lake

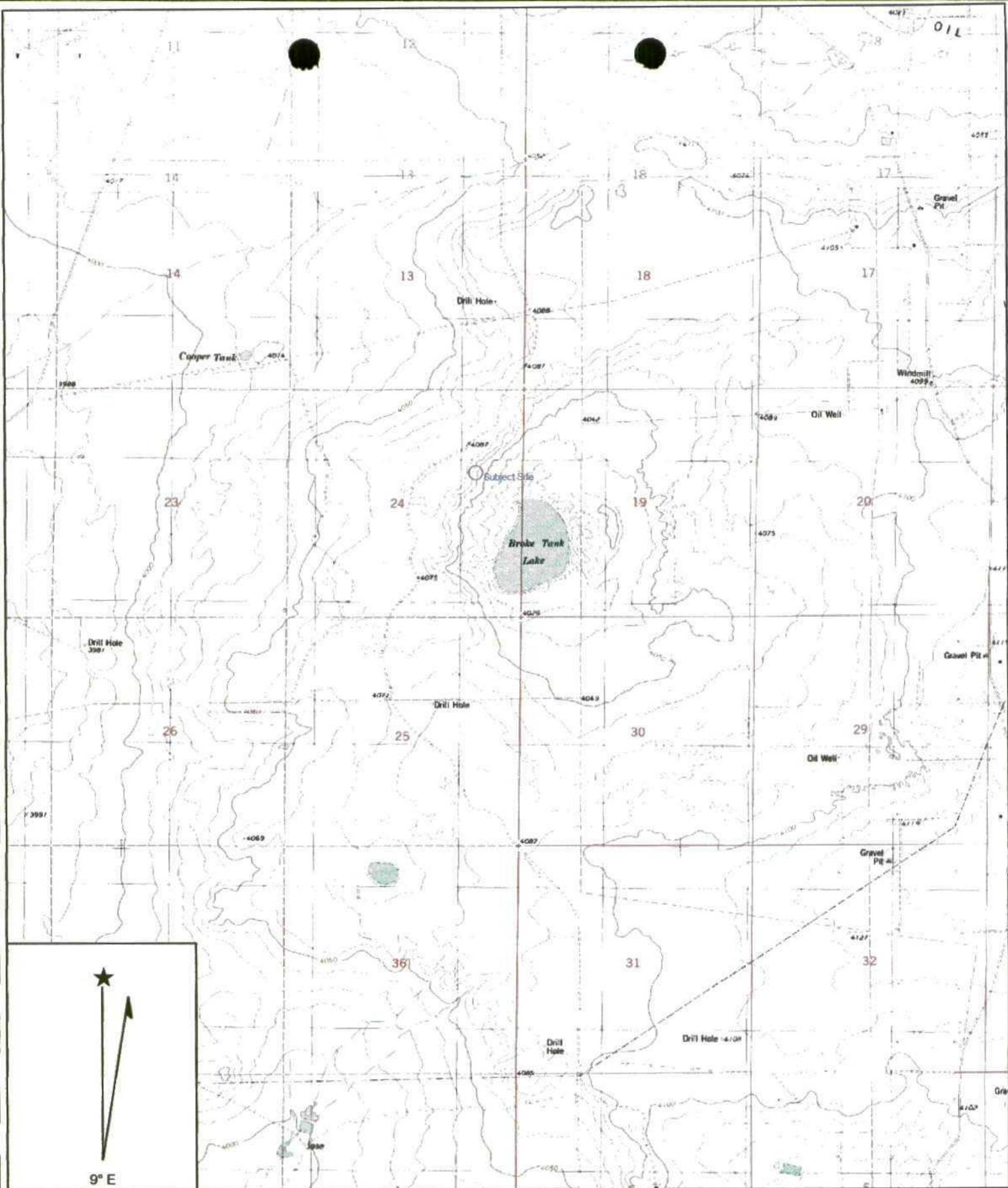
This area contained degraded hydrocarbon contamination along two "run" areas. This area was approximately 600' X 600' and was "disced" in place and broken into small pieces, which will hasten natural attenuation in the area.

The area was worked in a manner to avoid future erosion of the area. No vertical or horizontal investigation was performed in this area.

## VI. Figures & Appendices

- Figure 1 - Vicinity Map
- Appendix A - Analytical Results
- Appendix B - Site Photos

# Figure 1 Vicinity Map



Name: PRESLER LAKE  
 Date: 1/11/2003  
 Scale: 1 inch equals 2857 feet

Location: 033° 35' 56.5" N 103° 55' 46.4" W  
 Caption: Frates Seeligson  
 Daughtery - Crosby Salt Lake  
 Treating Plant Disposal Facility

# Appendix A

## Analytical Results



# ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.**

ATTN: BOB ALLEN  
703 E. CLINTON, #103  
HOBBS, NM 88240  
FAX TO: (505) 393-4388

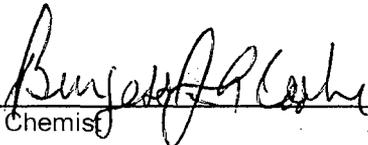
Receiving Date: 05/19/03  
Reporting Date: 05/20/03  
Project Number: SEE-02-001  
Project Name: NOT GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/16/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		05/20/03	05/20/03	05/20/03
H7668-1	D.C. COMP #1 DUNES	<10.0	233	5520
H7668-2	D.C. COMP #2 DUNES	<10.0	42.1	1020
H7668-3	D.C. DISCARD AREA	<10.0	271	160
Quality Control		814	844	990
True Value QC		800	800	1000
% Recovery		102	106	99.0
Relative Percent Difference		2.5	3.4	6.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-Cl'B

\*Analyses performed on 1:4 w:v aqueous extracts.

  
Chemist

5/20/03  
Date

H7668A.XLS

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.



# ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

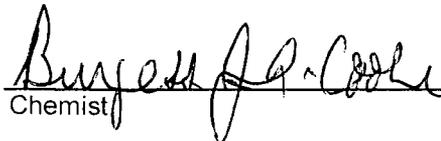
ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #103  
HOBBS, NM 88240  
FAX TO: (505) 393-4388

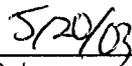
Receiving Date: 05/19/03  
Reporting Date: 05/20/03  
Project Number: SEE-02-001  
Project Name: NOT GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/16/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		05/19/03	05/19/03	05/19/03	05/19/03
H7668-1	D.C. COMP #1 DUNES	<0.005	<0.005	<0.005	<0.015
H7668-2	D.C. COMP #2 DUNES	<0.005	<0.005	<0.005	<0.015
H7668-3	D.C. DISCARD AREA	<0.005	<0.005	<0.005	<0.015
Quality Control		0.090	0.092	0.088	0.262
True Value QC		0.100	0.100	0.100	0.300
% Recovery		89.8	91.9	88.2	87.2
Relative Percent Difference		3.2	6.6	2.0	1.6

METHOD: EPA SW-846 8260

  
Chemist

  
Date

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. **H7668B-XLS** 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.



## Appendix B Site Photos



Process Area Before 11/20/02



Process Area Before 11/20/02



Lake Shore Before 11/20/02



Lake Shore Before 11/20/02



Lake Shore Before 11/20/02



Lake Shore Before 11/20/02



Typical "Run" at Lake Shore 11/20/02



More "Run" at Lake Shore 11/20/02



Lake Shore 11/20/02



"Run" Area Between Process Area & Lake Bed 11/20/02



"Run" Area Between Process Area & Lake Bed 11/20/02



"Run" Area 11/20/02



"Run" Area 11/20/02



Lake Shore During Excavation 3/5/03



“Typical” Material Found at Lake Shore 3/5/03



Lake Shore During Excavation 3/5/03



Lake Shore During Excavation 3/5/03



"Typical" Material Found at Lake Shore 3/5/03



Lake Shore During Excavation 3/21/03



Trench #1 3/21/03



Trench #1 3/21/03



Lake Shore During Excavation 3/25/03



Lake Shore During Excavation 3/25/03



Spoils Pile 3/25/03



Lake Shore 3/25/03



Spoils Pile 3/25/03



Spoils Pile 3/25/03



Spoils Pile 3/25/03



Spoils Pile 3/25/03



Contaminated Material Being Placed in Trench 3/25/03



Partially Filled Trench #1 3/25/03



Partially Filled Trench #1 3/25/03



Lake Shore 4/4/03



Lake Shore 4/4/03



Lake Shore 4/4/03



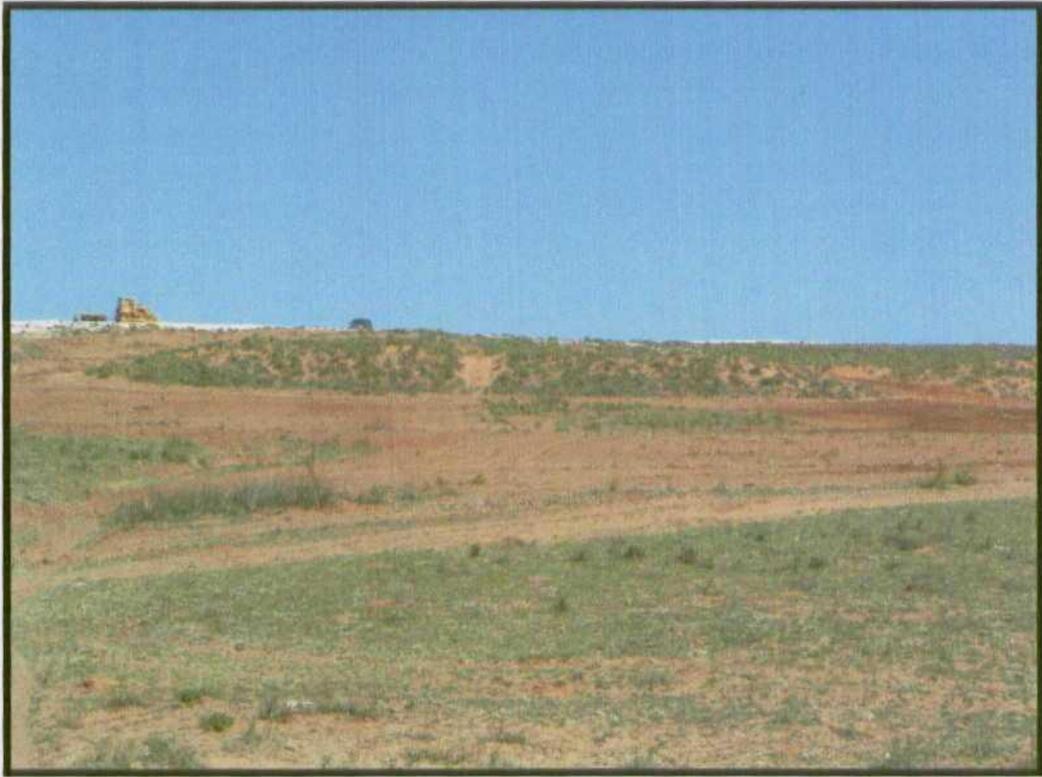
Lake Shore 4/4/03



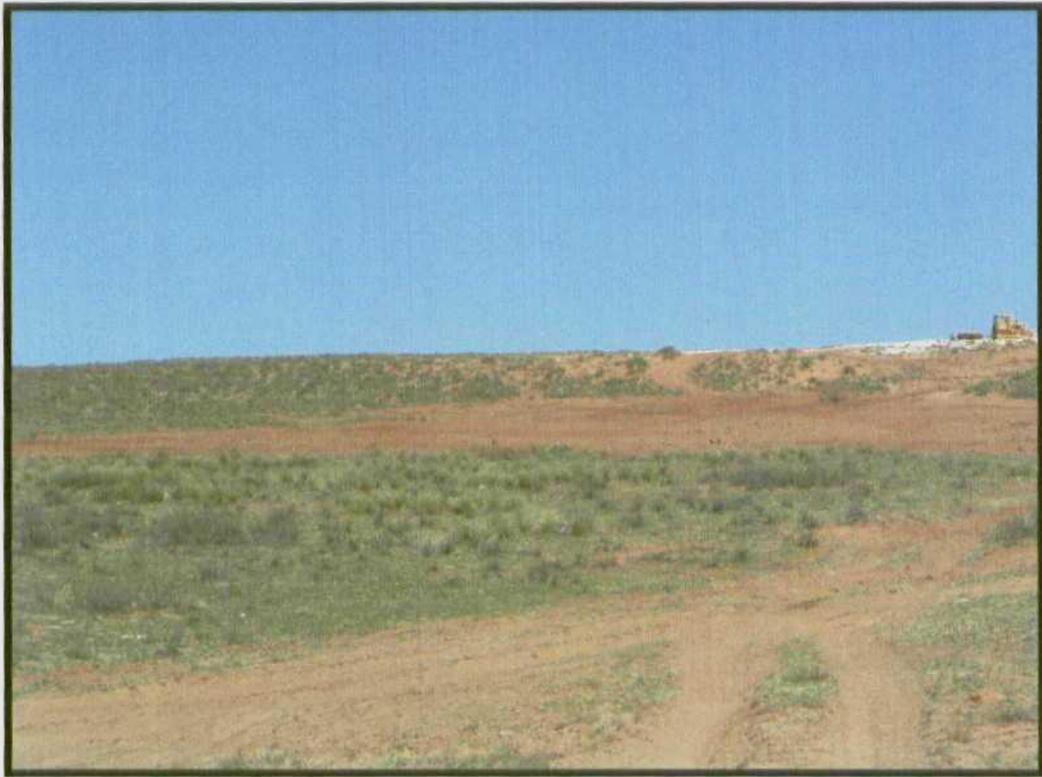
Trench #2 4/4/03



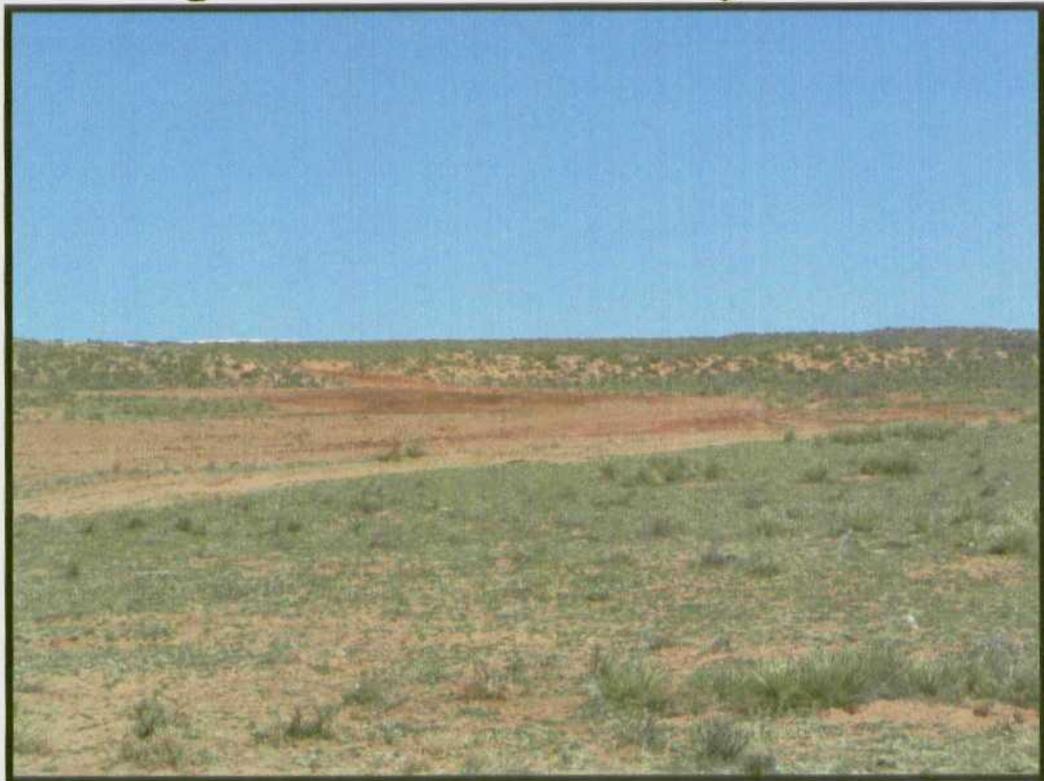
Lake Shore 4/4/03



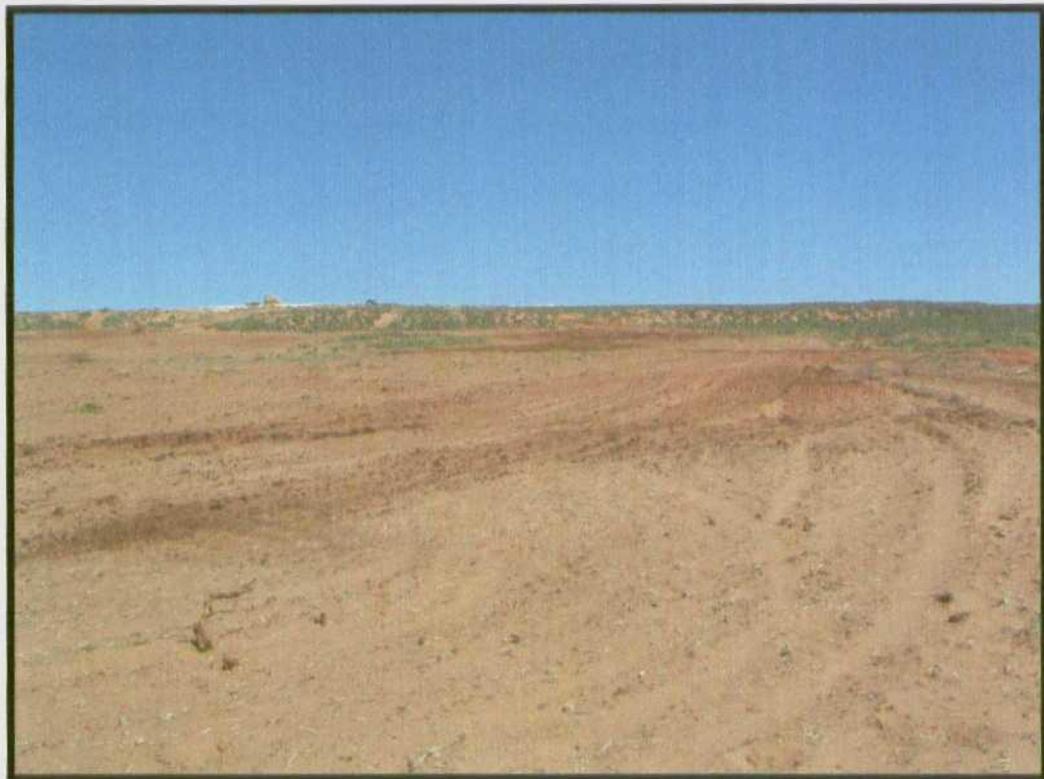
"Run" Area Between Process Area & Lake 4/4/03



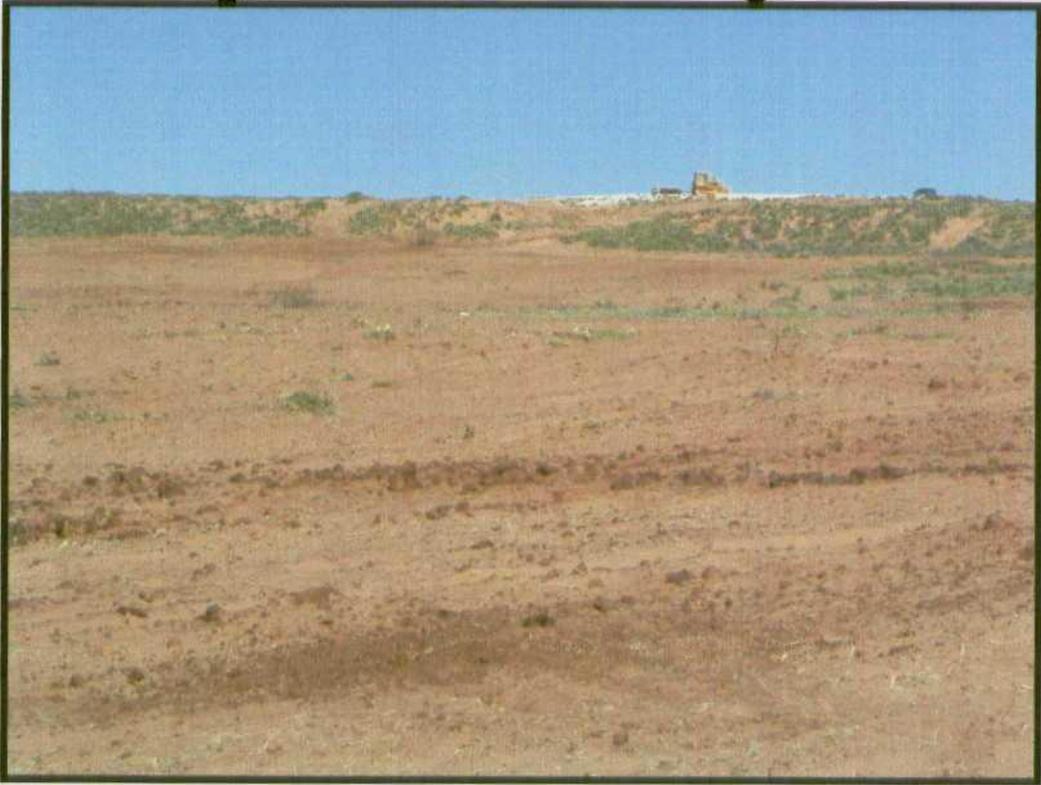
"Run" Area Between Process Area & Lake 4/4/03



"Run" Area Between Process Area & Lake 4/4/03



"Run" Area Between Process Area & Lake 4/4/03



"Run" Area Between Process Area & Lake 4/4/03



Lake Shore Final 5/16/03



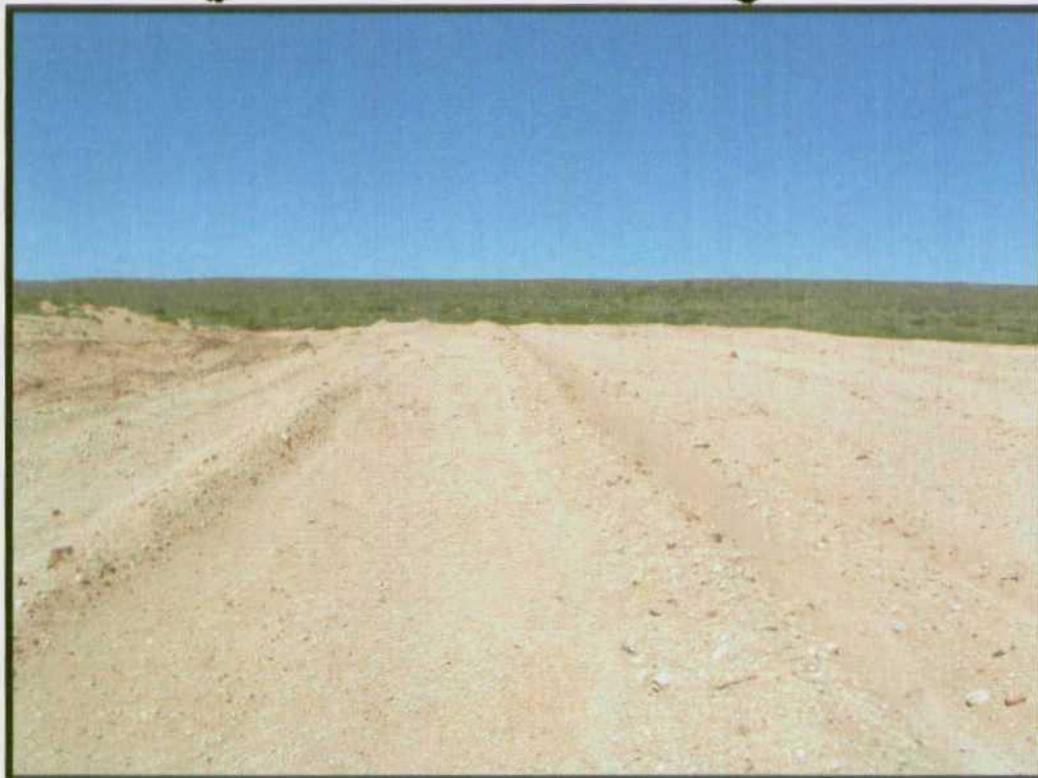
Lake Shore Final 5/16/03



Example of Isolated Small Run  
Soil Sampled Underneath This Run 5/16/03



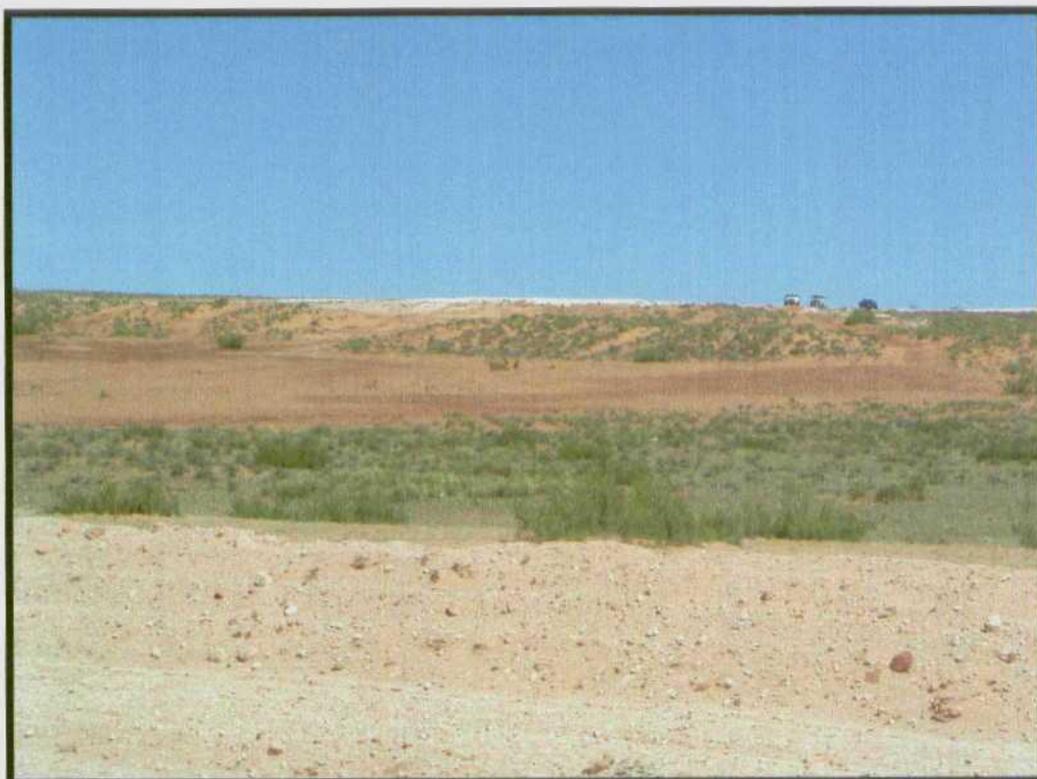
Soil Sample Location 5/16/03



Capped Trench 5/16/03



Capped Trench 5/16/03



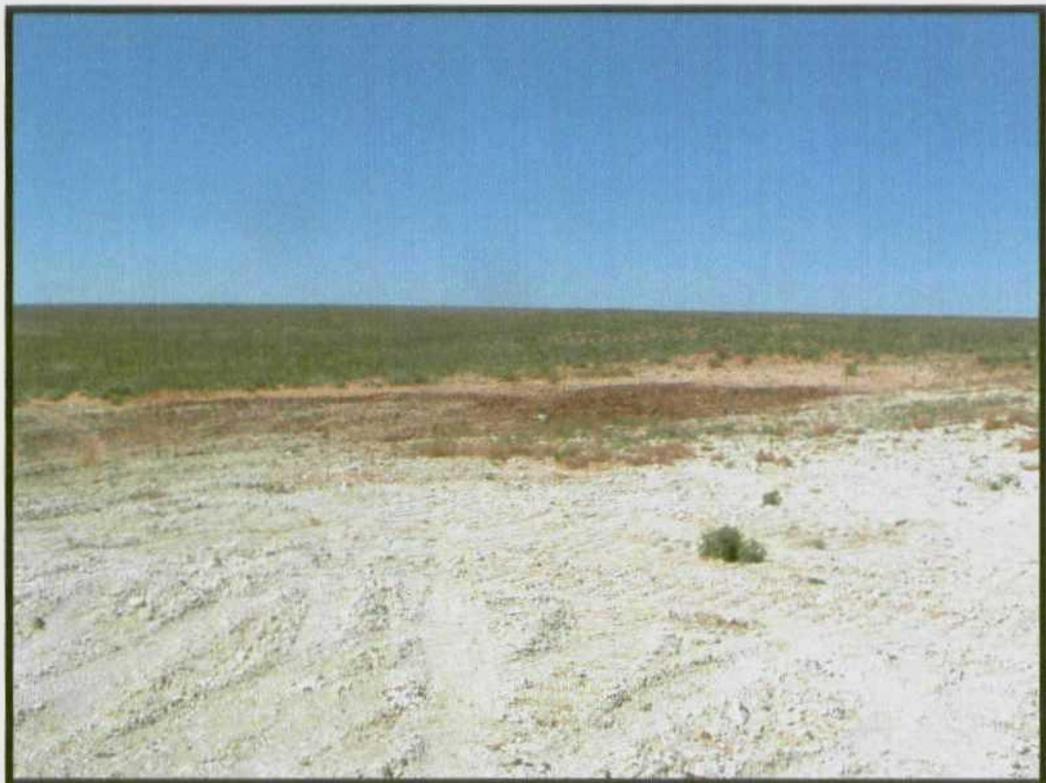
Run Area 5/16/03



Run Area 5/16/03



Run Area 5/16/03



Process Area Final 5/16/03



Overview of Project Final 5/16/03



Overview of Project Final 5/16/03



Above Ground Tank Area Final 5/16/03

## Kieling, Martyne

---

**From:** Stubblefield, Mike  
**Sent:** Friday, March 28, 2003 2:44 PM  
**To:** Kieling, Martyne  
**Cc:** Arrant, Bryan  
**Subject:** Remediation actions Daughtery Treating Plant & Disposal Facility

Martyne,

Here are some photo's taken on my inspection today. The remediation actions will probably be concluded today along the lake shores and on the sand dune area to the east of the lake playas. Some of the photo's are of the disposal pit excavated on the bench north and east of lake playas. One disposal pit has recovered materials in it and the disposal pit being excavated has the recovered materials stockpiled near it. Bob Allen will not cover the disposal pits until next Friday giving Frates a chance to see the open pits. Remediation operations will now start to correct through blending the degraded hydrocarbon going from the closed treating facility site down to the lake playas. Will keep you informed as the project progresses.

Mike S.



MVC-005F.JPG



MVC-006F.JPG



MVC-007F.JPG



MVC-008F.JPG



MVC-009F.JPG



MVC-010F.JPG



MVC-011F.JPG



MVC-012F.JPG



MVC-013F.JPG

## Kieling, Martyne

---

**From:** Stubblefield, Mike  
**Sent:** Wednesday, March 12, 2003 7:10 AM  
**To:** Kieling, Martyne  
**Subject:** RE: Daughtery/White Lakes

Martyne,

I made my weekly visit to the Daughtery treating site yesterday. A backhoe is on site excavating and stockpiling the degraded hydrocarbon from the lake shores. There are some places where contamination has penetrated deeper than expected. Bob Allen is meeting with Frates today before excavating to vertical extent in the mentioned areas. It is estimated that the stockpiling actions will take at least two more weeks. When the recovery and stockpiling actions are concluded and the stockpiled materials are ready for burial I would like to have you inspect the lake shoreline for your approval on final excavation near the lake. I will E-mail you when the area as I have mentioned is ready for your inspection.

Mike S.

-----Original Message-----

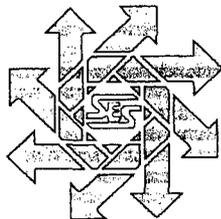
**From:** Kieling, Martyne  
**Sent:** Tuesday, March 11, 2003 2:56 PM  
**To:** Stubblefield, Mike  
**Subject:** Daughtery/White Lakes

Mike,

How are things going out at the old Daughtery treating plant and the lake shore cleanup. Please advise should I come for a day visit to check on the cleanup around the lake? as you probably know our travel has been halted as far as per deim is concerned. But I will come if I can squeeze it all in one day. Let me know what you think.

*Martyne J. Kieling*

Martyne J. Kieling  
Environmental Geologist



P.O. Box 1613  
703 E. Clinton Suite 102  
Hobbs, New Mexico 88240  
505/397-0510  
Fax 505/393-4388  
www.sesi-nm.com

## **Safety & Environmental Solutions, Inc.**

April 17, 2003

Mrs. Martyne Kieling  
Environmental Geologist  
Oil Conservation Division  
P.O. Box 6429  
Santa Fe, NM 87504

Dear Martyne:

This letter will request a modification to the approved work plan for the Daughtery-Crosby Salt Lake Treating Plant. As we discussed during our telephone conversation today, Mr. Seeligson had agreed to install boreholes in order to delineate the process area as well as cap it with caliche. However, after further review of that area, it is our feeling that there is only minimal surface contamination in the form of "hardpan" or well degraded hydrocarbons is present in that area. There is no evidence of contamination that would migrate either vertically or horizontally from that area. The "hardpan" can be disced in place and broken into small pieces which will hasten natural attenuation in the area.

Please consider this request to allow only discing the area instead of the original plan. We feel this is a reasonable action considering the overall improvement in the facility due to the completion of the remaining steps in the approved work plan.

Thank you for your consideration in this matter. If I may answer any questions of be of further service, please call me.

Sincerely,

Bob Allen CHMM, REM, CET, CES  
President

BA/jra



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

April 21, 2003

Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**RE: Remediation / Cleanup  
Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico**

Dear Mr. Seeligson:

The New Mexico Oil Conservation Division (OCD) has received the letter dated April 17, 2003 from Safety & Environmental Solutions, Inc. requesting to modify the Remediation and Cleanup Work Plan, dated January 10, 2003, for the Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility. The OCD hereby approves of the modification to disc or rip the process area to aid in the natural attenuation.

Please be advised that this approval does not relieve Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility of liability should their operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility of responsibility for compliance with other federal, state or local regulations.

If there are any questions, please contact me at (505) 476-3488.

Sincerely

Martyne J. Kieling  
Environmental Geologist

XC: Artesia OCD  
Bob Allen, Safety & Environmental Solutions, Inc., 703 E. Clinton Suite 102, Hobbs, NM 88240

**Kieling, Martyne**

---

**From:** Stubblefield, Mike  
**Sent:** Friday, April 18, 2003 6:34 AM  
**To:** Kieling, Martyne  
**Subject:** RE: Daughtery

Martyne,

I believe Safety & Environmental Solutions request for modification of the work plan is based on a sound bases and is approval able.

Mike S.

-----Original Message-----

**From:** Kieling, Martyne  
**Sent:** Thursday, April 17, 2003 3:31 PM  
**To:** Stubblefield, Mike  
**Subject:** Daughtery

Mike,

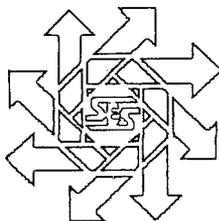
I received a call from Bob Allen today and he submitted a request to modify the approved work plan for the Daughtery site. When you get a chance can you look this over and with your knowledge of the site give me your recommendation.

Thanks  
Martyne

-----Original Message-----

**From:** Bob Allen [mailto:ballen@sesi-nm.com]  
**Sent:** Thursday, April 17, 2003 2:18 PM  
**To:** Martyne Keeling  
**Subject:**

Bob Allen  
Safety & Environmental Solutions, Inc.  
505-397-0510



P.O. Box 1613  
703 E. Clinton Suite 102  
Hobbs, New Mexico 88240  
505/397-0510  
Fax 505/393-4388  
www.sesi-nm.com

## **Safety & Environmental Solutions, Inc.**

April 17, 2003

Mrs. Martyne Kieling  
Environmental Geologist  
Oil Conservation Division  
P.O. Box 6429  
Santa Fe, NM 87504

Dear Martyne:

This letter will request a modification to the approved work plan for the Daughtery-Crosby Salt Lake Treating Plant. As we discussed during our telephone conversation today, Mr. Seeligson had agreed to install boreholes in order to delineate the process area as well as cap it with caliche. However, after further review of that area, it is our feeling that there is only minimal surface contamination in the form of "hardpan" or well degraded hydrocarbons is present in that area. There is no evidence of contamination that would migrate either vertically or horizontally from that area. The "hardpan" can be disced in place and broken into small pieces which will hasten natural attenuation in the area.

Please consider this request to allow only discing the area instead of the original plan. We feel this is a reasonable action considering the overall improvement in the facility due to the completion of the remaining steps in the approved work plan.

Thank you for your consideration in this matter. If I may answer any questions of be of further service, please call me.

Sincerely,

Bob Allen CHMM, REM, CET, CES  
President

BA/jra

**FRATES SEELIGSON, JR.**

3737 Broadway - #210  
San Antonio, TX 78209

Phone 210-826-5645  
Fax 210-826-5689

February 20, 2003

Ms. Martyne J. Kicling, Environmental Geologist  
New Mexico Energy Minerals and Natural Resources Department  
Fax #505-476-3462

RE: Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30E; Section 24, T 8 S, R 29 E; and  
Section 19, T 8 S, R 29 E,  
NMPM, Chaves County, New Mexico  
National Surety Corporation, Bond No. 11132683654

Following is Paul Gabel's permission to do the work as outlined.

Frates Seeligson, Jr.

Mr. Frates S Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

February 19, 2003

To Whom It May Concern:

Mr. Seeligson has our permission to perform the work outlined in the Remediation and Cleanup Work Plan on the Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility. We ask that Mr. Seeligson or the crew performing the work call either myself or our ranch manager the day before bringing equipment onto or beginning work on the ranch. We also request that any roads used to bring equipment to the job site be repaired to their condition before this project.

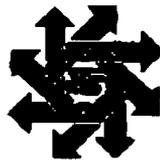
Sincerely,



Paul Gabel  
PO Box 9  
Sudan TX 79371  
806 227 2288 phone  
806 227 2258 fax

Ranch Manager  
Terry Brice  
505 398 3172 phone  
505 631 0509 mobile

## FAX COVER SHEET



Safety &amp; Environmental Solutions, Inc.

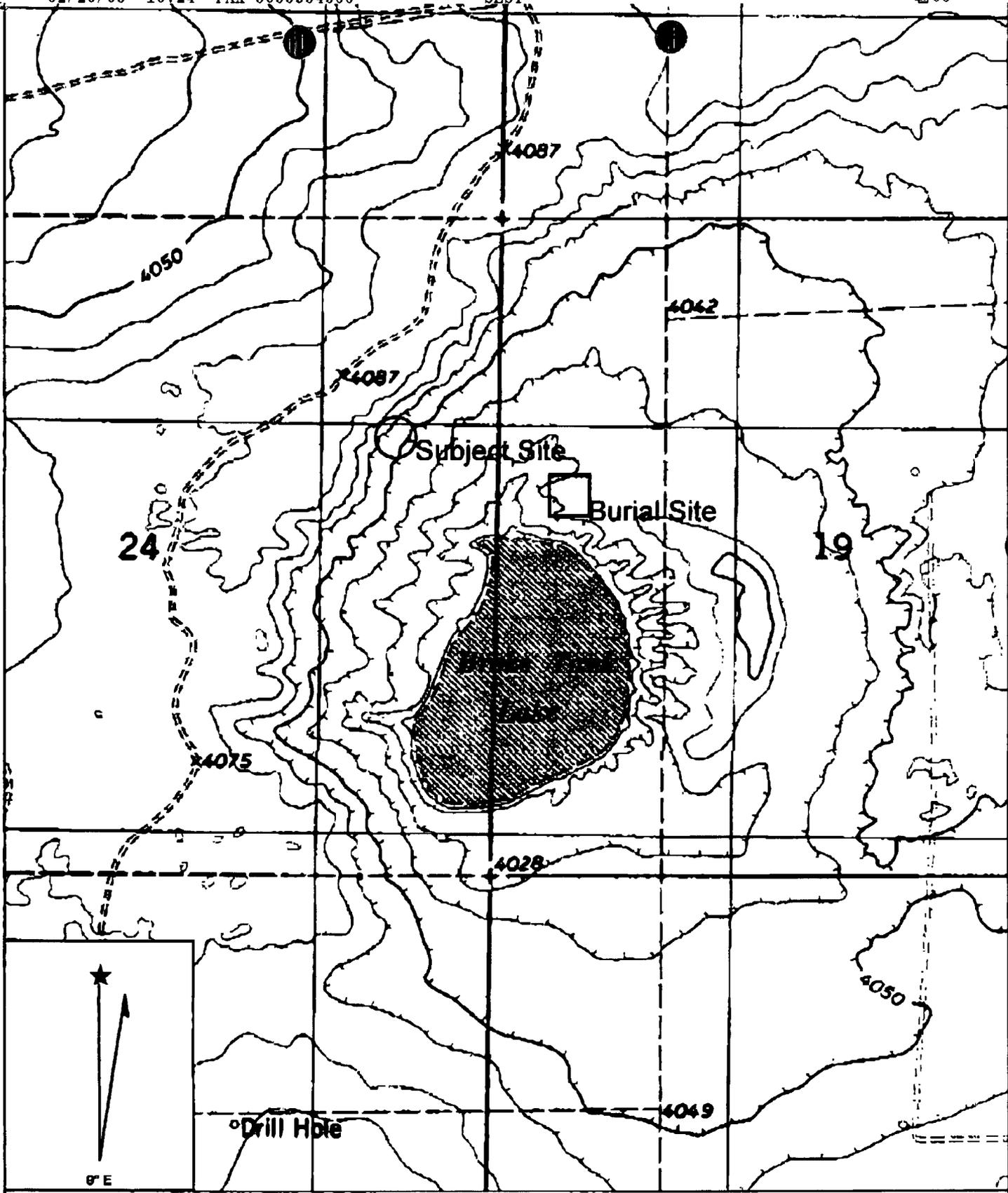
P.O. Box 1613  
703 E. Clinton Suite 103  
Hobbs, New Mexico  
88240  
505/397-0510  
Fax: 505/393-4388

<b>Send to:</b> NMOCD	<b>From:</b> Jerri Lee
<b>Attention:</b> Martyne Kieling	<b>Date:</b> 2-20-03
<b>Office Location:</b>	<b>Office Location:</b>
<b>Fax Number:</b> 505-476-3462	<b>Phone Number:</b>

- Urgent
- Reply ASAP
- Please comment
- Please review
- For your information

**Total pages, including cover:** 3

**Comments:**



Name: PRESLER LAKE  
 Date: 2/8/2003  
 Scale: 1 inch equals 1000 feet

Location: 033° 36' 14.8" N 103° 55' 41.1" W  
 Caption: Frates Seelgson  
 Daughtery-Crosby Salt Lake  
 Treating Plant Disposal Facility

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 9:00 am Date 2-20-03

Originating Party Frakes Seeleyson Other Parties Martyn Kieking

Subject Have Received written Approval to begin Cleanup

Discussion will be calling with a start date very soon  
will send OGD copies of approval letter.

Conclusions or Agreements District Mike Stubblefield will be  
Notified Also

Distribution \_\_\_\_\_ Signed Martyn Kieking

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 2:30 Date 2-10-03

Originating Party Allen Hodge Other Parties Martinez Kierling

Subject Daugherty treating plant. Cleanup.

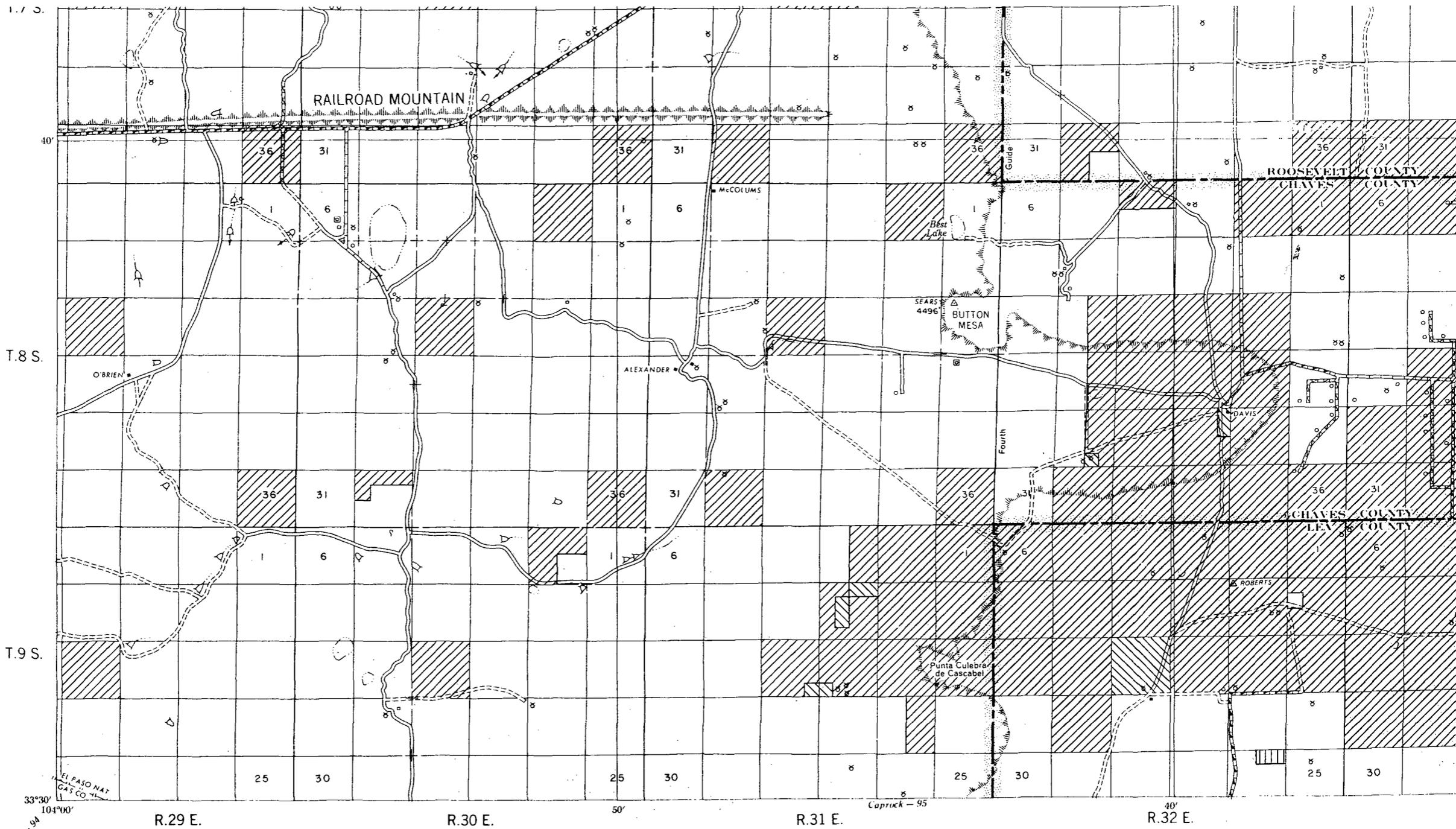
Discussion ~~Parties~~ owners of the treating plant Seeligson are trying to locate the current land owner. They have just engaged a lawyer from Roswell to aid them in their search.

Conclusions or Agreements ~~They~~ The Seeligsons are still actively trying to clean up the facility.

Distribution

Signed



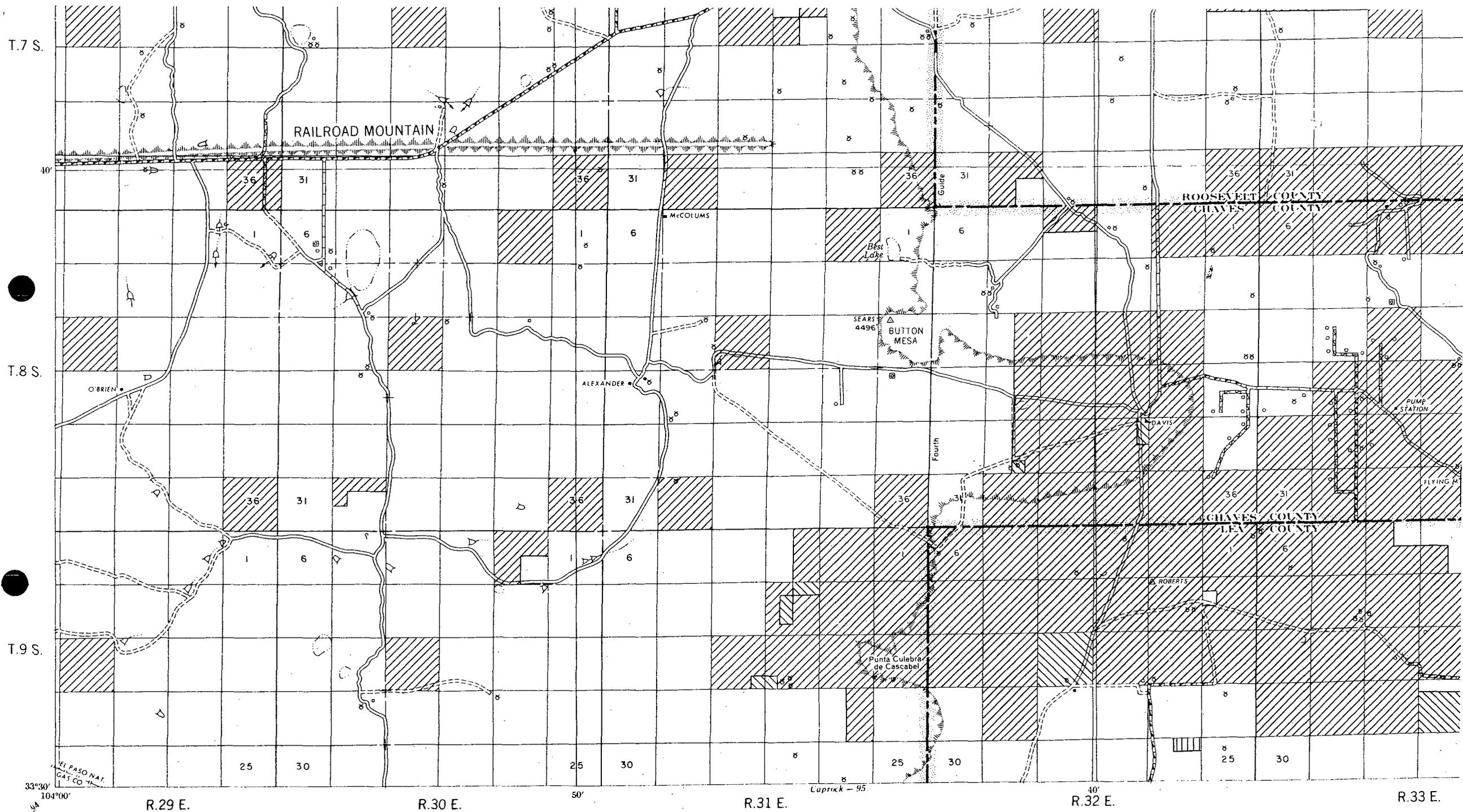


Hogerman - 94  
 33°30'  
 104°00'

Control by U.S. Coast and Geodetic Survey; U.S. Geological Survey; U.S. Forest Service; Bureau of Land Management and Planning Division—Modified Conic Projection Standard Parallel 34½° North American Datum

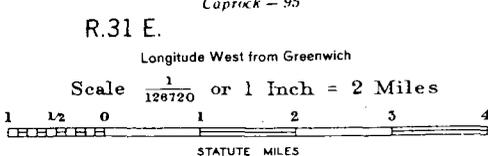
Longitude West from Greenwich  
 Scale  $\frac{1}{128720}$  or 1 Inch = 2 Miles  
 1 1/2 0 1 2 3 4  
 STATUTE MILES

DATE OF INVENTORY  
 CHAVES COUNTY 1966  
 ROOSEVELT CO. 1964  
 LEA COUNTY 1963

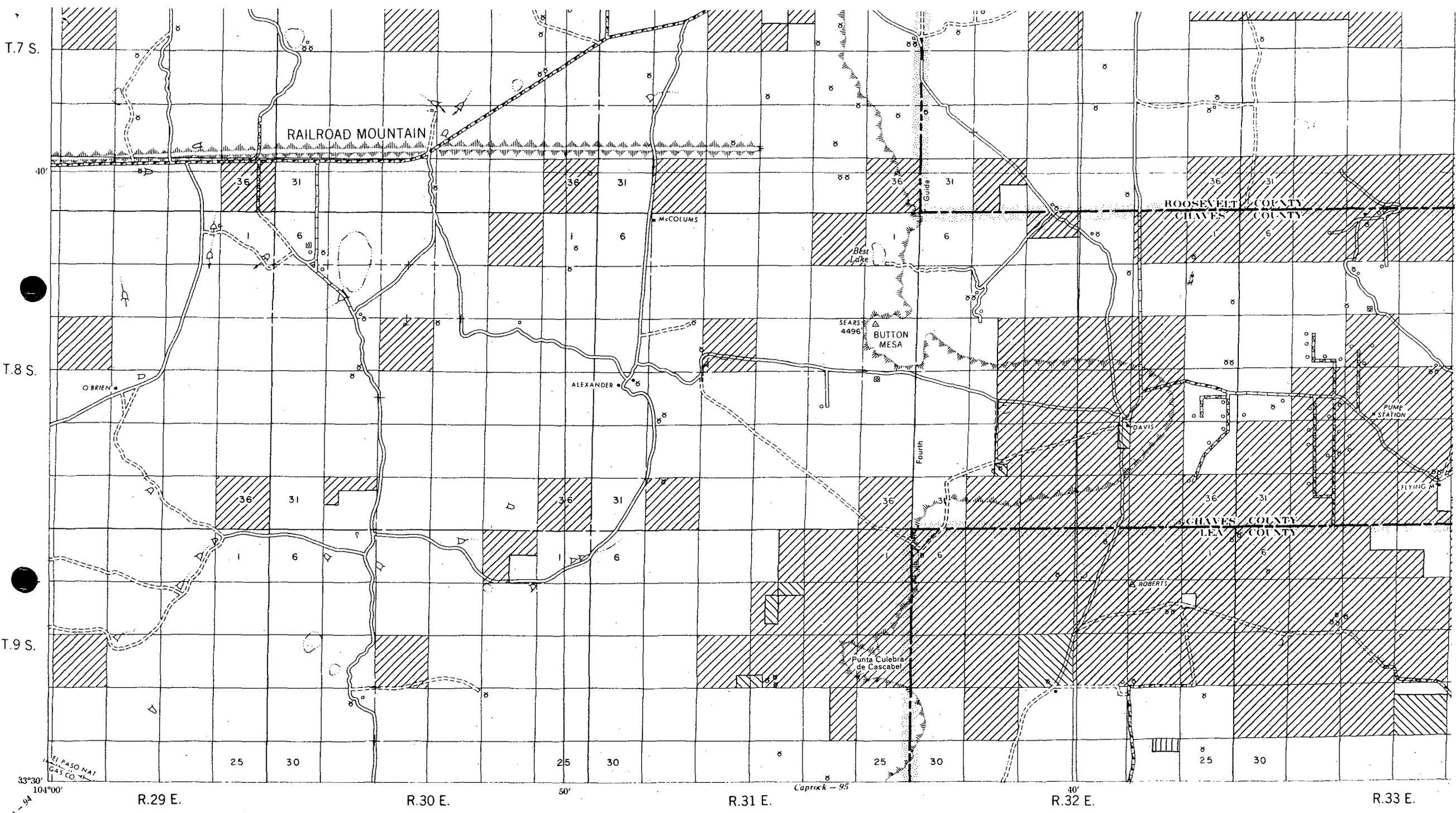


Houghton - 34  
 33°30'  
 104°00'

Control by U.S. Coast and Geodetic Survey; U.S. Geological Survey; U.S. Forest Service; Bureau of Land Management and Planning Division—Modified Conic Projection Standard Parallel 34½° North American Datum

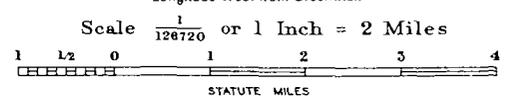


DATE OF INVENTORY  
 CHAVES COUNTY 1966  
 ROOSEVELT CO. 1964  
 LEA COUNTY 1963



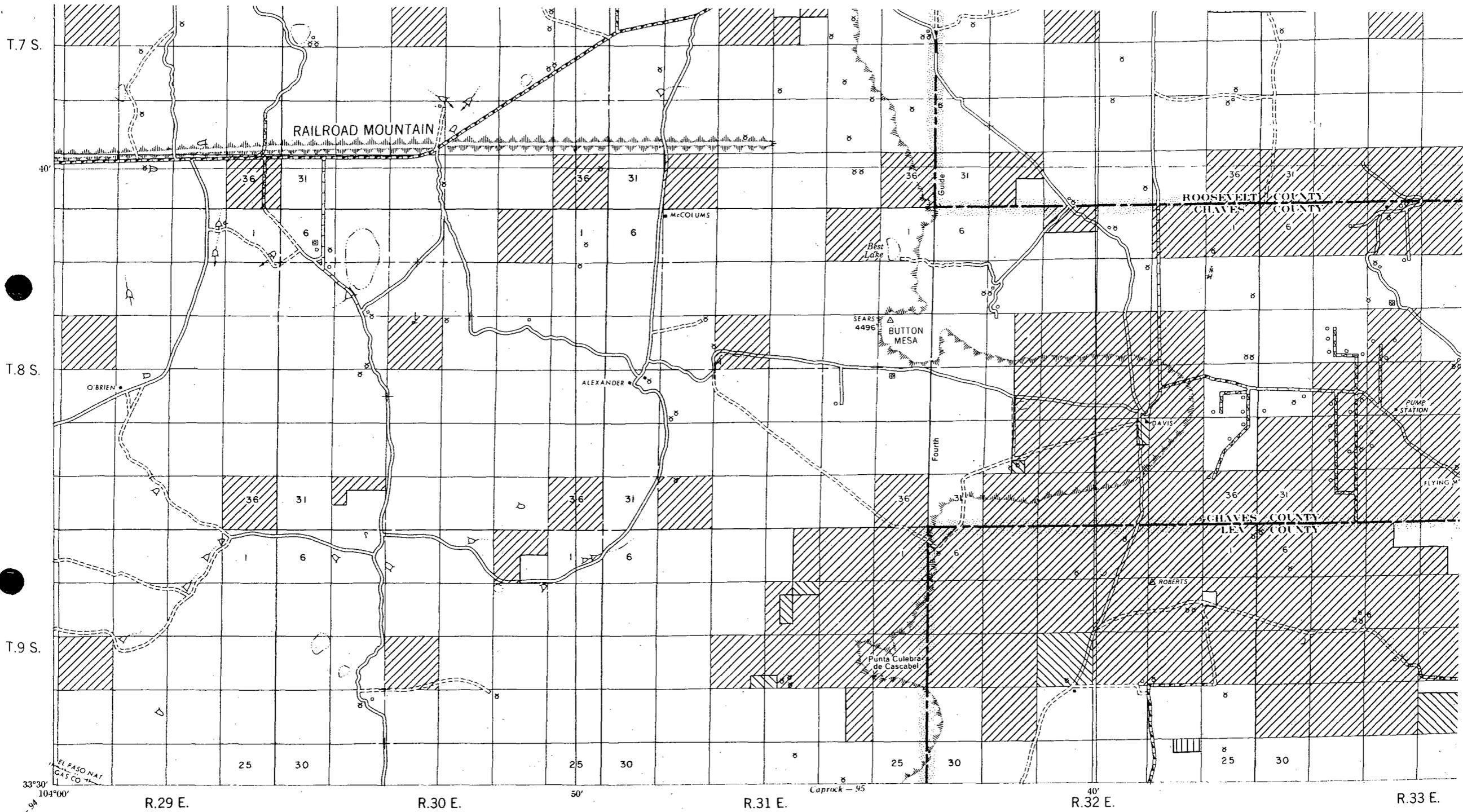
33°30' 104°00'  
 Hayward - 94

Control by U.S. Coast and Geodetic Survey; U.S. Geological Survey; U.S. Forest Service; Bureau of Land Management and Planning Division—Modified Conic Projection Standard Parallel 34½° North American Datum



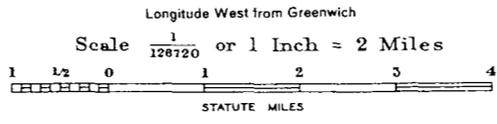
DATE OF INVENTORY	
CHAVES COUNTY	1966
ROOSEVELT CO.	1964
LEA COUNTY	1963

Q1

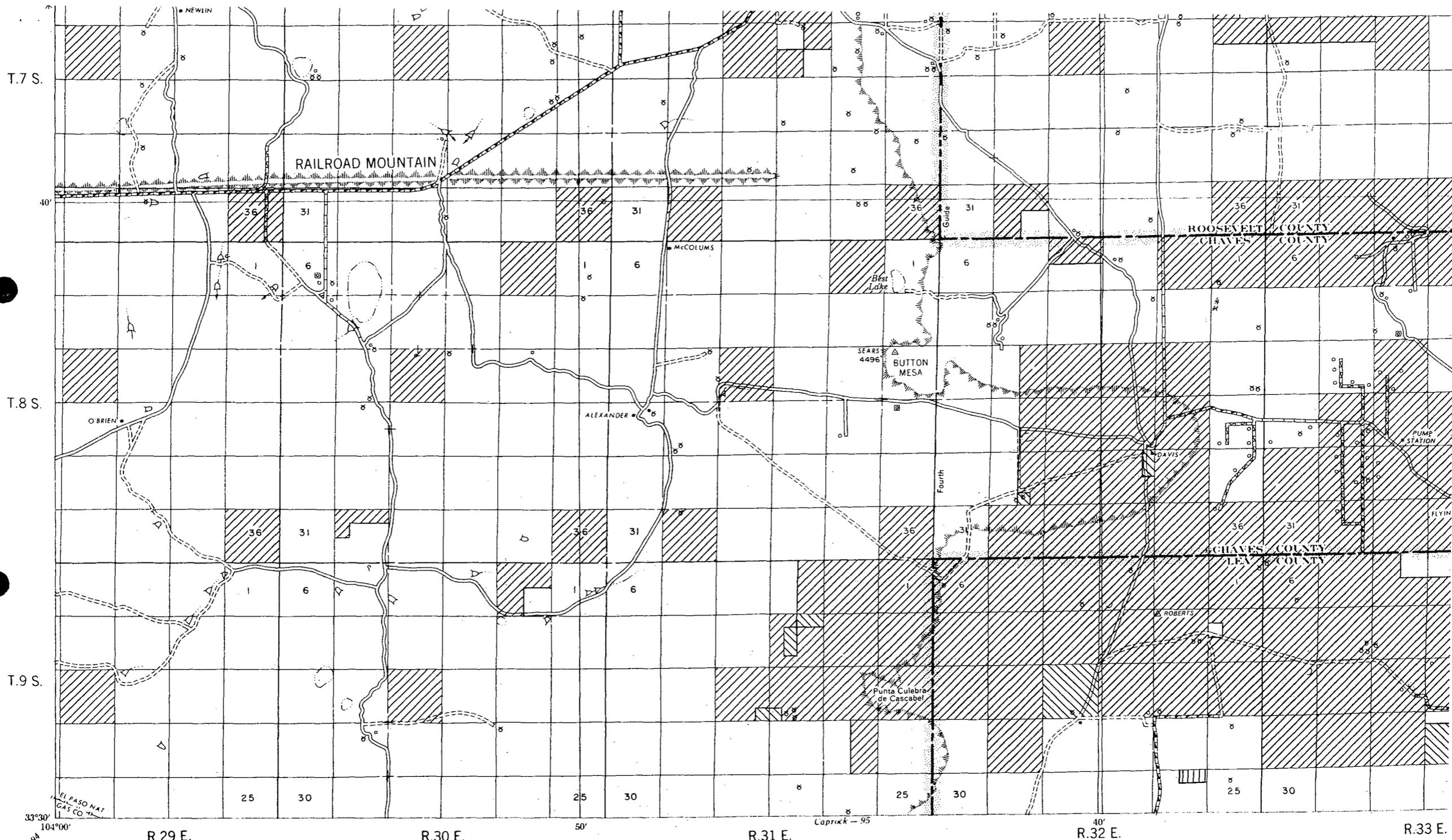


Hugerman - 94

Control by U.S. Coast and Geodetic Survey; U.S. Geological Survey; U.S. Forest Service; Bureau of Land Management and Planning Division—Modified Conic Projection Standard Parallel 34½° North American Datum



DATE OF INVENTORY  
 CHAVES COUNTY 1966  
 ROOSEVELT CO. 1964  
 LEA COUNTY 1963



Control by U.S. Coast and Geodetic Survey; U.S. Geological Survey; U.S. Forest Service; Bureau of Land Management and

Longitude West from Greenwich  
 Scale  $\frac{1}{126720}$  or 1 Inch = 2 Miles  
 1 1/2 0 1 2 3 4

DATE OF INVENTORY  
 CHAVES COUNTY 1966  
 ROOSEVELT CO. 1964



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenberg**  
Director  
Oil Conservation Division

January 31, 2003

Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**RE: Remediation / Cleanup  
Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico**

Dear Mr. Seeligson:

The New Mexico Oil Conservation Division (OCD) has received the Remediation and Cleanup Work Plan dated January 10, 2003 for the Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility. The OCD hereby approves of the remediation and cleanup plan prepared by Safety & Environmental Solutions, Inc. with the following conditions.

1. The landowner of record at the site must be notified and written permission must be received regarding the work outlined in the Remediation and Cleanup Work Plan.
2. A topographic map showing the disposal trench location that was discussed at the December 2002 site inspection must be included as part of the Work Plan.
3. The analytical results will be made available to the OCD as the work progresses.
4. The OCD Santa Fe and Artesia District offices must be notified within 48 hours of beginning the site work, within 48 hours of beginning trenching and within 48 hours of covering and backfilling the disposal trench.
5. A final report will be submitted to the OCD Santa Fe office and a copy to the Artesia District office upon completion of the project. The report must include a detailed description of the work that was performed and must include all analytical results delineating nature and extent along with maps locating any and all remaining waste that is left or disposed of on site. The report should also describe where the flow lines and tanks were disposed or recycled.

Please be advised that this approval does not relieve Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility of liability should their operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility of responsibility for compliance with other federal, state or local regulations.

If there are any questions, please contact me at (505) 476-3488.

Sincerely

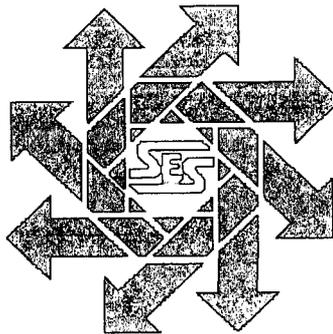


Martyne J. Kieling  
Environmental Geologist

Xc: Artesia OCD  
Safety & Environmental Solutions, Inc., 703 E. Clinton Suite 102, Hobbs, NM 88240

**Daughtery – Crosby Salt Lake  
Treating Plant and Disposal Facility  
Remediation/Cleanup Work Plan  
Section 19, Township 8S, Range 30E  
Section 24, Township 8S, Range 30E  
Section 19, Township 8S, Range 29E  
Chaves County, New Mexico**

**January 10, 2003**



**Prepared for:**

**Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, Texas 78209**

**By:**

***Safety & Environmental Solutions, Inc.  
703 E. Clinton Suite 102  
Hobbs, New Mexico 88240  
(505) 397-0510***

## TABLE OF CONTENTS

Purpose .....	1
Background .....	1
Contaminant and Size of Area .....	1
Vertical and Horizontal Extent of Contamination .....	1
Groundwater .....	1
Action Plan .....	1
Figures .....	3

I. Purpose

The purpose of this work plan is to propose a plan for the cleanup of the area identified as the Daughtery – Crosby Salt Lake Treating Plant and Disposal Facility in the letter from the New Mexico Oil Conservation Division (NMOCD) to Mr. Frates S. Seeligson dated October 22, 2002. The subject area is located in Section 19, Township 8S, Range 30E, Section 24, Township 8S, Range 30E, and Section 19, Township 8S, Range 29E, in Chaves County, New Mexico. The site is situated on the White Lake Ranch privately owned by Mr. Kent Gable. The site was an NMOCD approved treating and reclaiming facility operated from the late 1970s to the late 1980s. This plan will allow closure in a manner that will protect the population, environment and groundwater of the area surrounding the subject location. (Figure 1)

II. Background

The subject site was used as a water treating and oil reclaiming facility in the past. The site is currently abandoned. Two abandoned tanks and many feet of associated flowlines are still on-site.

III. Contaminant and Size of Area

The suspected contaminant is crude oil and produced water associated with the treating and reclaiming facility. The crude oil and produced water is considered exempt oilfield waste. No evidence of other contaminants was observed.

IV. Vertical and Horizontal Extent of Contamination

A vertical and horizontal extent investigation has not been performed at this site. The only area requiring a vertical and horizontal extent investigation is the process area.

V. Groundwater

There is no protectable groundwater in the area according to the database provided by the New Mexico State Engineer's Office .

VI. Action Plan

The above referenced letter requires that the following areas be addressed at the subject site: Process Area, Flow Lines, Above Ground Tanks, Crosby Salt Lake and Area between Process Area and Crosby Lake.

The action plan for the closure of each area is detailed below.

**Process Area**

This area will be delineated for the vertical and horizontal extent of contamination. We plan to install three to four boreholes in the area from which samples will be taken from the appropriate depths and sent to a laboratory for analysis. The results will be documented in the closure report.

In addition, a cap of caliche material will be placed over this area. There will be no soil excavation or removal in this area.

#### **Flow Lines**

All flowlines left in the area that were associated with this facility will be cut up, and taken to a local landfill for proper disposal.

#### **Above Ground Tanks**

The two above ground tanks at the site will be removed.

#### **Crosby Salt Lake**

The hydrocarbon material at the lake will be excavated and disposed of onsite at the location near the lake agreed upon by the NMOCD at the last inspection in December 2002. A disposal trench will be excavated at that location and the contaminated soils placed in the trench. A 3' to 4' cap of native soil with a high clay content from the surrounding area will be placed on top of the filled disposal trench.

SESI will take samples of the soil immediately under the material that is to be removed at several points around the area. These samples will be used to document the level of TPH under the material. No specific TPH level must be attained in this area.

#### **Area between Process Area and Crosby Lake**

This area contains degraded hydrocarbon contamination along two "run" areas. This area will be "disced" in place. The area will be worked in a manner to avoid future erosion of the area. No vertical or horizontal investigation will be performed in this area. No specific level of TPH must be attained in this area.

After completion of the project, the appropriate reports will be filed with the NMOCD in the closure report.

Figure 1  
Vicinity Map

**FRATES SEELIGSON, JR.**

3737 Broadway - #210  
San Antonio, TX 78209

Phone ..10-826-5645  
Fax 210-826-5689

RECEIVED

DEC 02 2002

Environmental Bureau  
Oil Conservation Division

November 26, 2002

Ms. Martyne J. Kieling, Environmental Geologist  
New Mexico Energy Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility  
Section 19, T 8 S, R 30E; Section 24, T 8 S, R 29 E; and  
Section 19, T 8 S, R 29 E,  
NMPM, Chaves County, New Mexico  
National Surety Corporation, Bond No. 11132683654

Dear Martyne:

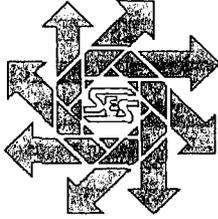
Just to follow up on the progress of the clean up of the Daughtery-Crosby Salt Lake Treating Plant and Disposal Facility, I just returned from Roswell where I had a meeting with both Bob Allen and Larry Gandy. I am awaiting their estimates on the cost of the cleanup and will contract one of the two once the information is at hand.

I hope this meets with your approval. Happy Thanksgiving.

Sincerely,



Frates Seeligson, Jr.



RECEIVED

NOV 3 1 2002

Environmental Bureau  
Oil Conservation Division

P.O. Box 1613  
703 E. Clinton Suite 102  
Hobbs, New Mexico 88240  
505/397-0510  
Fax 505/393-4388  
www.sesi-nm.com

## Safety & Environmental Solutions, Inc.

November 8, 2002

Mrs. Martyne Kieling  
Environmental Geologist  
Oil Conservation Division  
P.O. Box 6429  
Santa Fe, NM 87504

RECEIVED

NOV 13 2002

Environmental Bureau  
Oil Conservation Division

Dear Martyne:

Safety & Environmental Solutions, Inc. (SESI) has been retained by Mr. Frates Seeligson of San Antonio, Texas to perform assessment and remedial services at the Daughtery-Crosby Salt Lake Treating Plant and disposal facility. Mr. Seeligson is unable to travel to New Mexico until November 25, 2002 when we plan to meet at the site in order to finalize plans to comply with your letter of October 22, 2002.

In your letter you required a response by November 27, 2002; however, I would like to request an extension of time for that request to December 27, 2002. This extension of time will allow us adequate time to perform the assessment services and formulate an appropriate remediation plan.

Thank you for your consideration in this matter. If I may answer any questions of be of further service, please call me.

Sincerely,

Bob Allen CHMM, REM, CET, CES  
President

BA/jra



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Betty Rivera**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

October 22, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7001-1940-0004-3929-8140**

Mr. Frates S. Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**RE: Daughtery - Crosby Salt Lake Treating Plant and Disposal Facility Inspection  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
and Section 19, T 8 S, R 29 E,  
NMPM, Chaves County, New Mexico  
National Surety Corporation, Bond No.11132683654**

Dear Mr. Seeligson:

The New Mexico Oil Conservation Division (OCD), inspected the Daughtery - Crosby Salt Lake treating plant and disposal facility located in the Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E; and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico, on June 3, 2002. The OCD inspection indicated that the facility requires some additional remediation. Below is a list of items that must be addressed prior to the OCD closing the site and returning the surety bond No.11132683654 for \$25,000 held by the National Surety Corporation. Please review Attachment 1 that contains photos taken during the inspection.

1. Process Area:

Petroleum contaminated soil is still evident at the processing area on top of the hill (see photo 1).

Contaminated soils must be either excavated and removed to an OCD approved disposal facility or be further remediated on site. Please refer to the enclosed "Unlined Surface Impoundment Closure Guidelines" for remediation and sampling guidance. The soil samples must be analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX). Remediation levels are based on depth to groundwater, proximity to water wells, and proximity to surface water.

Upon approval of final remediation the process area must be reseeded with a native seed mix.

2. Flow lines:

Flow lines are still in place down the slope from the process area toward Crosby Salt Lake (see photo 5)

All flow lines associated with the treating plant and disposal operation must be recycled or disposed of at an OCD approved facility.

3. Above Ground Tanks:

Two of the former above ground tanks from the treating plant along with the catwalk (photo 7 & 8) have been moved off site to a location approximately one half mile west of the facility process area (see photo 6).

Any oil or BS&W material contained within these tanks must be hauled to an OCD approved waste management facility. Please supply written documentation that the current landowner at this location has taken possession of the tanks. If this is not the case the tanks and catwalk must either be recycled or disposed of at an OCD approved facility.

4. Crosby Salt Lake:

The cleanup activities in 1988 removed petroleum-contaminated soils from the lakebed and shoreline and placed the contaminated material along the upper banks of the lake. These contaminated soil piles are now weeping hydrocarbons that are running back down toward the lake playa (see photo 2, 3 and 4). Hydrocarbons migrating toward Crosby Salt Lake present a potential hazard to migratory birds.

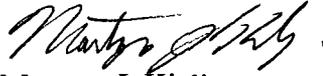
Contaminated soils must be either excavated and removed to an OCD approved disposal facility or be further remediated on site. Please refer to the enclosed "Unlined Surface Impoundment Closure Guidelines" for remediation and sampling guidance. The soil samples must be analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX). Remediation levels for this location are based on depth to groundwater, proximity to water wells, and proximity to surface water.

Please provide the OCD with a remediation plan for the Daughtery/Crosby Salt Lake treating plant and disposal facility. The remediation plan must address the above items and must include a timetable for beginning and completion of the project. **A response is required by November 27, 2002.**

The National Surety Corporation Bond No. 11132683654 for \$25,000 will remain in full force and affect until such time as the OCD has approved the remediation and closed the facility. If you have any questions please do not hesitate to contact me at (505) 476-3488.

Frates S. Seeligson  
October 22, 2002  
Page 3

Sincerely,



Martyne J. Kieling  
Environmental Geologist

Attachments

xc: Artesia OCD Office  
Shannon Dom SM1A25, Fireman's Fund Insurance Company, 777 San Marin Drive,  
Navato, CA 94998

**Attachment 1**

Daughtery -Crosby Salt Lake Treating Plant  
Inspection June 3, 2002



Photo 1. Contaminated soils at the former location of the treating plant.



Photo 2. Contaminated soils that were removed from Crosby Salt Lake in 1988 and piled along the edge of the lake.



Photo 3. Contaminated soils that were removed from Crosby Salt Lake in 1988 and piled along the edge of the lake.



Photo 4. Contaminated soil along the edge of the saltpan of Crosby Salt Lake. Hydrocarbons are weeping from the material and flowing back toward the lakebed.



Photo 5. Flow lines that extend from the top of the hill down to the lake.



Photo 6. Two tanks and one catwalk from the treating plant that have been moved west approximately 1/2 mile.

**Attachment 1**

Daughtery -Crosby Salt Lake Treating Plant

Page 2



Photo 7. For Reference: Tanks at the facility in 08-27-1997



Photo 8. For Reference: Photo of tanks at the facility in 08-27-1997

**Attachment 1**

Daughtery -Crosby Salt Lake Treating Plant  
Inspection June 3, 2002



Photo 1. Contaminated soils at the former location of the treating plant.



Photo 2. Contaminated soils that were removed from Crosby Salt Lake in 1988 and piled along the edge of the lake.



Photo 3. Contaminated soils that were removed from Crosby Salt Lake in 1988 and piled along the edge of the lake.



Photo 4. Contaminated soil along the edge of the saltpan of Crosby Salt Lake. Hydrocarbons are weeping from the material and flowing back toward the lakebed.



Photo 5. Flow lines that extend from the top of the hill down to the lake.



Photo 6. Two tanks and one catwalk from the treating plant that have been moved west approximately 1/2 mile.

**Kieling, Martyne**

---

**From:** Stubblefield, Mike  
**Sent:** Tuesday, June 04, 2002 10:00 AM  
**To:** Kieling, Martyne  
**Subject:** INSPECTION TRIP 6/3/2002 CHAVES COUNTY CROSBY SALT LAKE

MARTYNE,

HOPE YOU ARE FEELING WELL TODAY. HERE ARE PHOTO'S OF MY INSPECTION WITH MYSELF AND FRATES SEELIGSON JR. TAKEN AT THE OLD CROSBY SALT LAKE TREATING PLANT.  
PHOTO 003 TREATING PLANT SITE LOOKING FROM THE SOUTH.  
PHOTO 006 HISTORIC HYDROCARBON SPILL REMOVED FROM THE LAKE PLAYAS TO THE SAND HILLS DUE EAST OF THE CROSBY BRINE LAKE.  
PHOTO 007 HISTORIC HYDROCARBON SPILL REMOVED FROM THE LAKE PLAYAS TO THE SAND HILLS DUE EAST OF THE CROSBY BRINE LAKE.  
PHOTO 011 HISTORIC HYDROCARBON SPILL AT POINT OF ENTRY FROM TREATING PLANT TO CROSBY LAKE PLAYAS.  
PHOTO 014 OLD FLOWLINE LEFT IN PLACE BETWEEN TREATING PLANT AND LAKE PLAYAS.  
PHOTO 005 STOCK TANKS REMOVED FROM TREATING PLANT AREA TO PASTURE EST. .4 MILE WEST OF OLD TREATING PLANT SITE.  
PHOTO 006 FLOW LINES FROM TREATING PLANT REMOVED TO PASTURE LAND EST. .4 MILE WEST OF OLD TREATING PLANT SITE.

MIKE S.



MVC-003F.JPG



MVC-006F.JPG



MVC-007F.JPG



MVC-011F.JPG



MVC-014F.JPG



MVC-005F.JPG



MVC-006F.JPG

Frates, here are the directions that I promised.

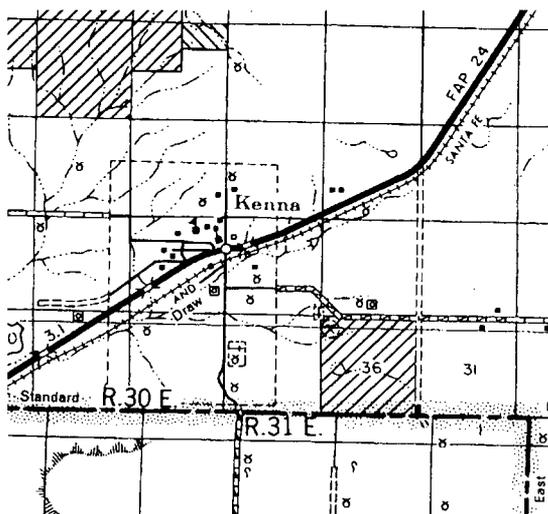
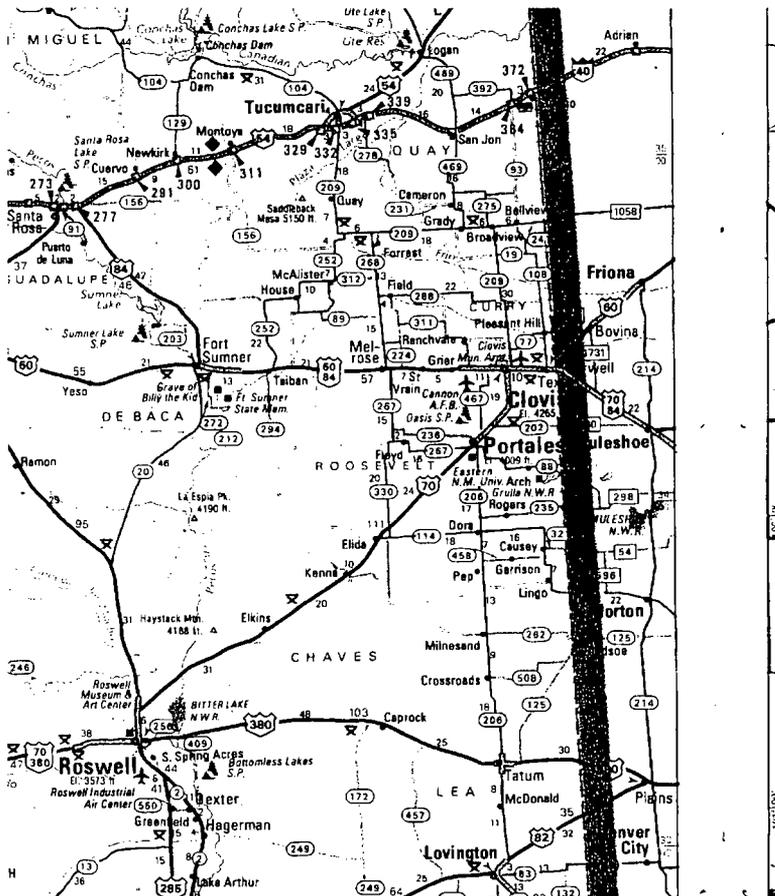
Lubbock, TX to Kenna, NM is approximately 152 miles.

Find Portales, NM. Go 24 miles West on US 70 to Elida, then another 10 miles west to Kenna (a wide spot in the road, so I am told).

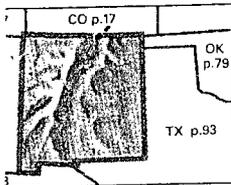
I will meet you next to the Railroad tracks, on the south side of US 70, wherever the main turn off is for Kenna.

I will be driving a White Ford Expedition with NM Oil Conservation Division Labels on the side.

I will have will have a cell phone with me 1-505-660-1067. **MEET AT 10:00 am on June 3, 2002**



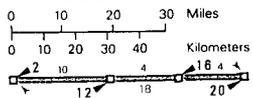




**Selected Recreational & Historical Sites**

- Aztec Ruins National Monument, B-3
- Capulin Volcano National Monument, B-10
- Carlsbad Caverns National Park, M-9
- EJ Morro National Monument, F-2
- Gila Cliff Dwellings National Monument, J-2
- Pecos National Monument, E-7
- Taos, C-7
- White Sands National Monument, K-6

**How to Determine Distance**

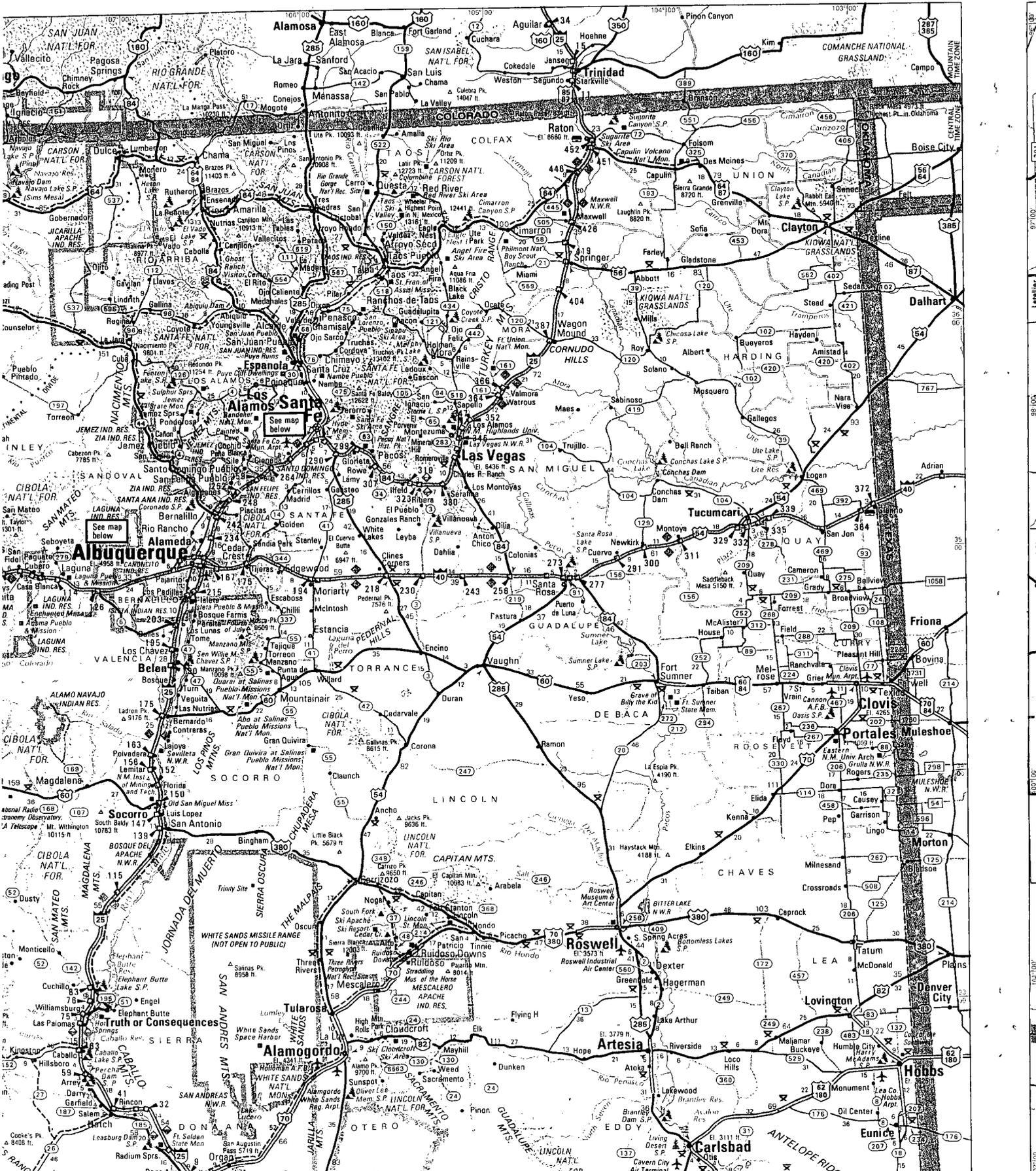


Mileage in red between red arrowheads, in black between intersections. Some interchange numbers indicate mileage.

**Mileage Between Principal Cities**

	Albuquerque	Alamogordo	Las Cruces	Raton	Roswell	Santa Fe	Socorro	Tucumcari
Albuquerque	209	275	217	180	138	223	198	61
Clovis	229	217	188	397	355	298	234	111
Las Cruces	69	223	216	298	401	337	394	187
Roswell	118	198	77	111	378	336	187	281
Santa Fe	228	61	267	208	198	198	283	168

Mileages © Rand McNally—TDM, Inc.



Mileage Between

Mil

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 2:55 pm Date 4-23-02

Originating Party Marlyne Kiehn Other Parties Frates Seeligson Jr  
cell 210-861-4881

Subject Daughtry Treating Plant. Left message to please call back

Discussion \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Conclusions or Agreements \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Distribution \_\_\_\_\_ Signed Marlyne Kiehn

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone     Personal    Time 12:27    Date 10-6-00  
Return call 10:15    10-11-00

Left message  
Left message

Originating Party    Other Parties  
Frank Seeligson Jr.    Marge Kieling  
cell phone 210-861-4881

Subject Daughter's Treating Plant Final Inspection  
(I will need something in writing as to what was done and when)

Discussion Meet at 10:00 in Roswell    November 7th  
Tuesday.

Conclusions or Agreements

Distribution    Signed Marty 11/7/00

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time ~~At~~ 4:01 Date August 31st 2000

Sept 5th 2000  
called Back

Originating Party Franks Seeligson Jr. Other Parties Martyn Kieeling  
210-826-5645 ex 14

Subject Daughtery White Lake Ranch

Discussion Meet at Facility to close it out checkout  
work that was done

Franks will call Back in a day or two  
with a date.

Conclusions or Agreements

Distribution

Signed *Martyn Kieeling*

E G E

JAN 25 1999

DEPARTMENT OF CONSERVATION

**FRATES SLICK SEELIGSON, JR.**

4040 Broadway, Suite #510  
San Antonio, Texas 78209  
210-826-5645

January 20, 1999

Ms. Martyne J. Kieling  
New Mexico Energy, Minerals & Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

**RE: Crosby Salt Lake Treating Plant Inspection  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;  
And Section 19, T 8 S, R 29 E,  
NMPM, Chaves County, New Mexico**

Dear Ms. Kieling:

Pursuant to your letter dated November 20, 1998 and our phone conversation on January 19, 1999, Crosby Salt Lake intends to make all necessary corrections to the treating plant. The recommendations put forth in the OCD's November letter shall be the guidelines that we follow.

Crosby Salt Lake has already contacted Mr. A.L. Daugherty as a possible site restoration manager and the present landowner, Mr. Kent Gable, regarding the use of heavy equipment. In addition, Mr. Dirk Jones, attorney-at-law, was contacted for advice regarding environmental consultants. Furthermore, I myself plan to travel to Roswell, in hopes of expediting the operation.

Regarding a timetable for completion of each correction, I can only say as soon as possible. Having no prior experience with cleaning up oil field sites, any date of completion would be mere speculation on my part. However, what I propose to do is to maintain communication with the OCD through you, updating the progress. I hope this meets with your approval.

If you have any questions or concerns please feel free to phone at (210) 826-5645 ext. 14.

Sincerely,



Frates Seeligson, Jr.

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 2:00	Date 1-19-99
---	-----------------------------------	--------------	-----------------

<u>Originating Party</u>	<u>Other Parties</u>
Martayne Kirdling Roger Anderson	Frates Seeligon Jr.

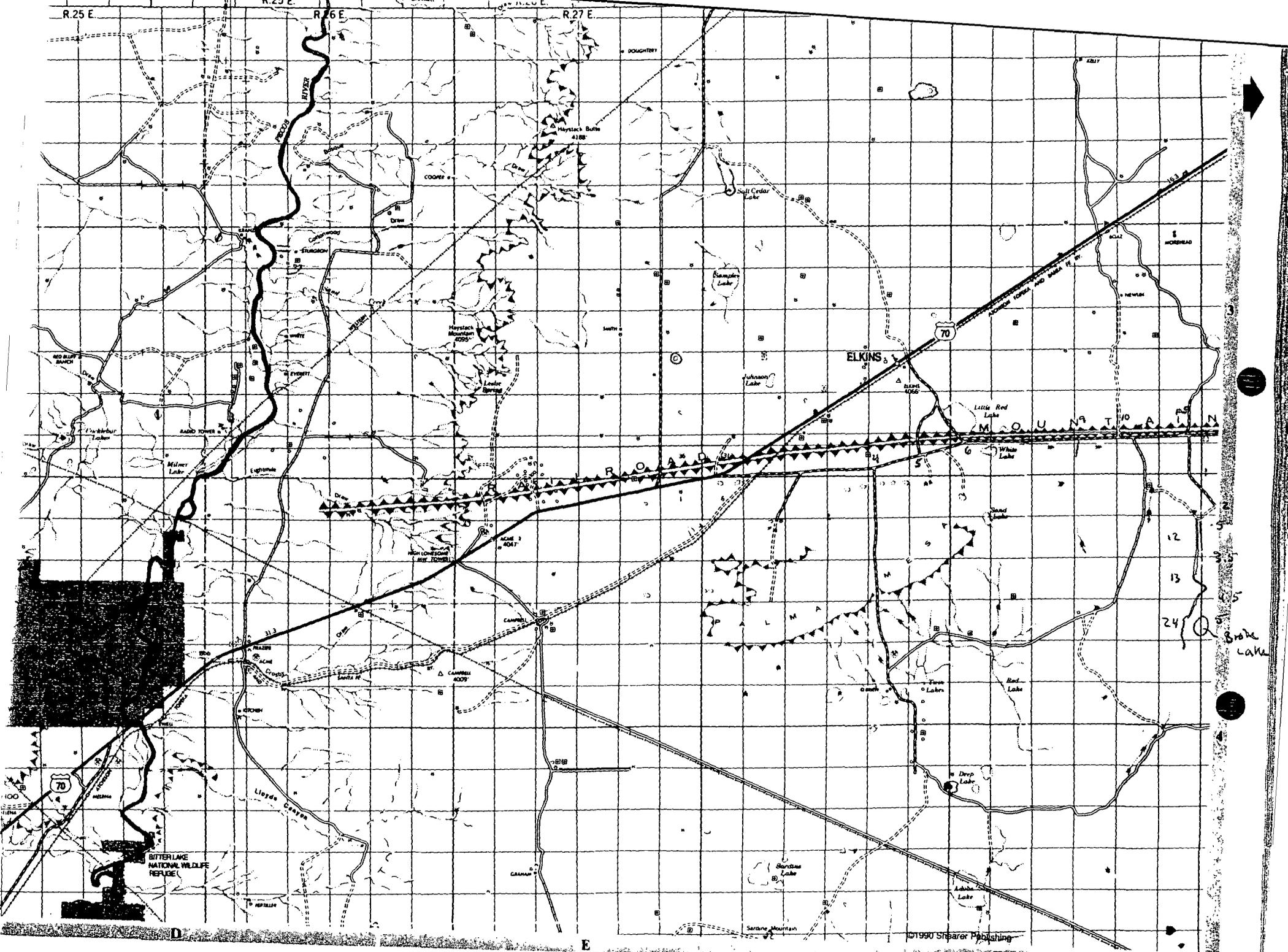
Subject Daugherty Crosby Salt Lake Remediation

Discussion Will write a reply letter today as to what they plan on doing. Added NORM to Pipe Survey. Letter will have time line as to when they plan on getting the clean up done.

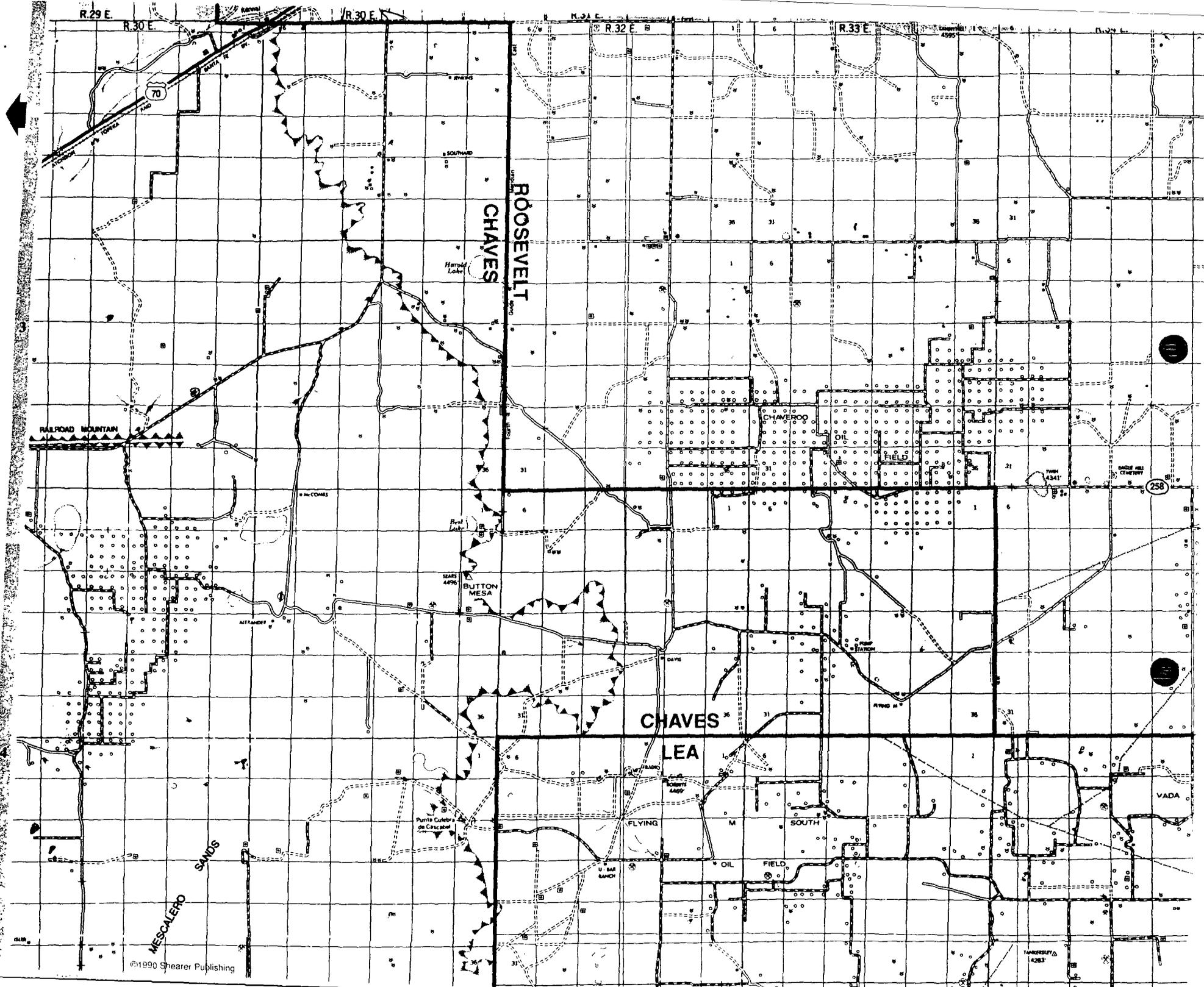
Conclusions or Agreements They will also notify SF office of sampling. Some can observe / split

Distribution Signed Martayne Kirdling





12  
13  
24  
Smoke Lake



R.29 E.

R.30 E.

R.30 E.

R.31 E.

R.32 E.

R.33 E.

ROOSEVELT  
CHAVES

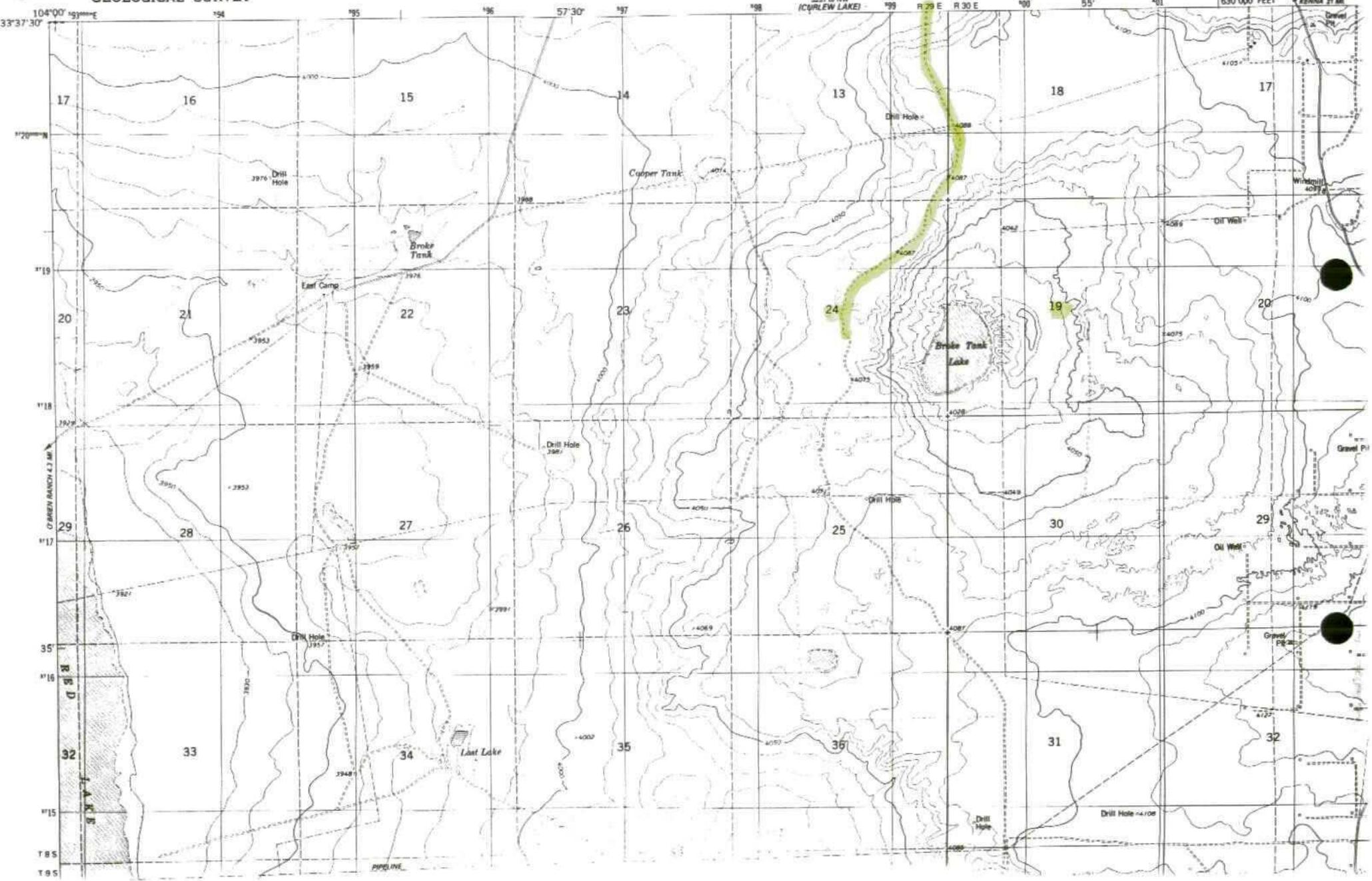
CHAVES  
LEA

MESCALERO  
SANDS



PRESLER LAKE QUAD

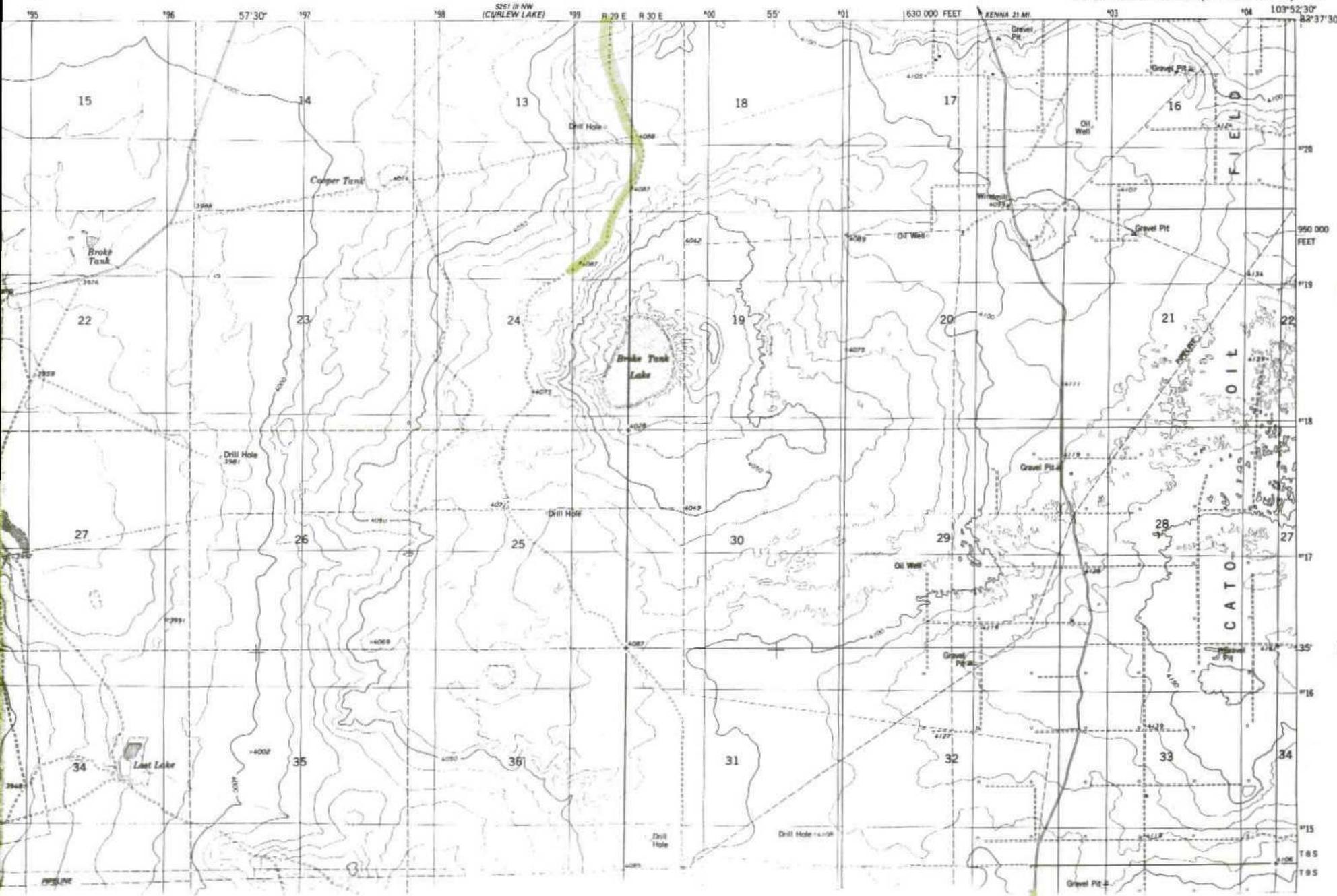
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



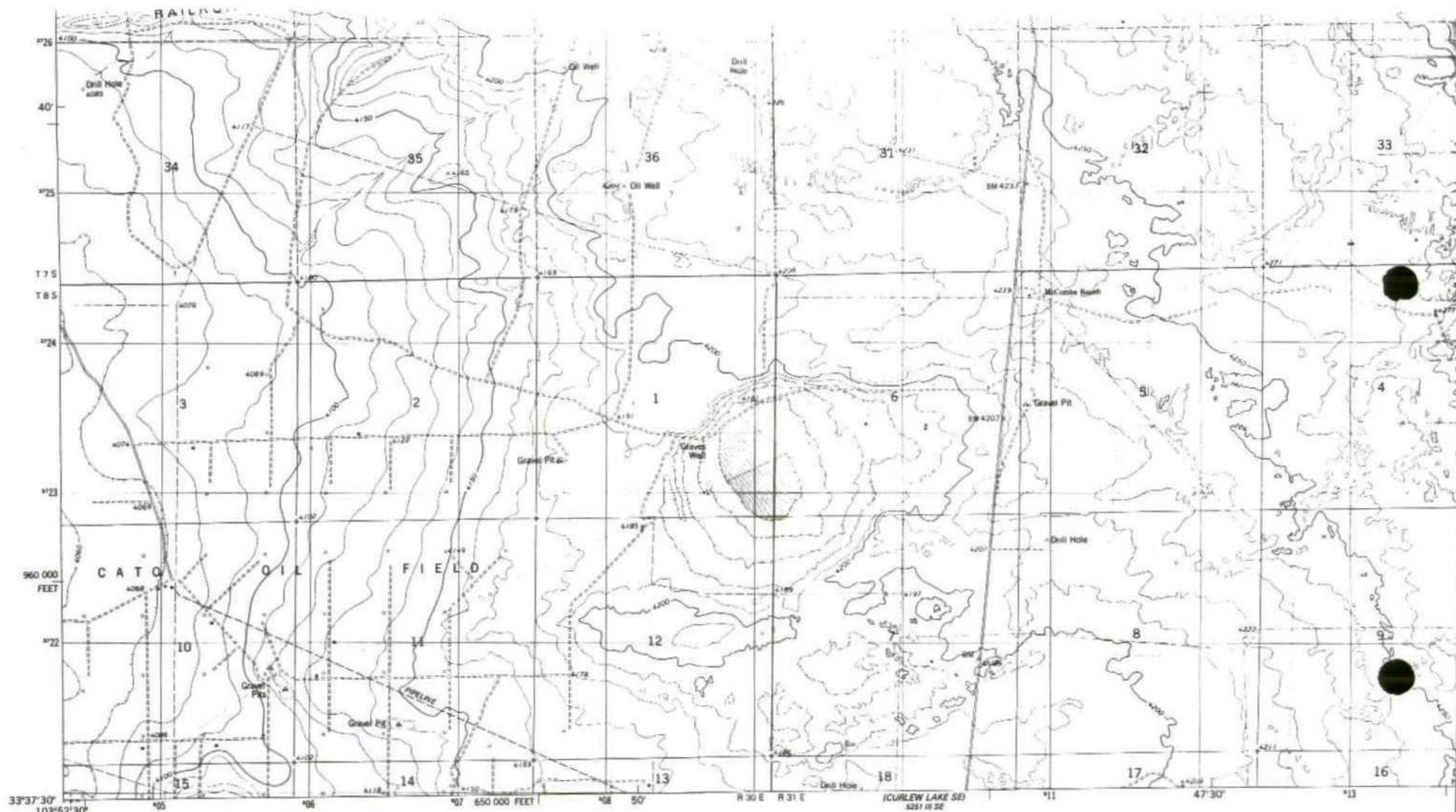
PRESLER LAKE QUADRANGLE  
NEW MEXICO—CHAVES CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)

25° 18' N  
103° 37' W

195 196 57°30' 197 198 3251 1/4 NW (CURLW LAKE) 199 R 29 E R 30 E 200 55' 201 1630 000 FEET KENNA 21 MI. 203 204 103°52'30" 104 103°37'30"



# LONE WOLF QUAD



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

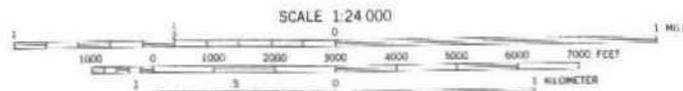
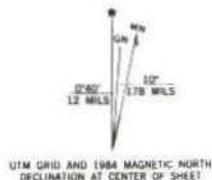
Topography by photogrammetric methods from aerial photographs taken 1974. Field checked 1975. Map edited 1979

Projection and 10,000-foot grid ticks: New Mexico coordinate system, east zone (transverse Mercator)  
1000-meter Universal Transverse Mercator grid, zone 13  
1927 North American Datum

To place on the predicted North American Datum 1983  
move the projection lines 6 meters south and  
47 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

Revisions shown in purple and woodland compiled from aerial photographs taken 1982 and other sources  
This information not field checked. Map edited 1984



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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

November 20, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-488**

Mr. Frates Seeligson  
4040 Broadway Suite 510  
San Antonio, TX 78209

**RE: Crosby Salt Lake Treating Plant Inspection**  
**Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E;**  
**and Section 19, T 8 S, R 29 E,**  
**NMPM, Chaves County, New Mexico**

Dear Mr. Seeligson:

The New Mexico Oil Conservation Division (OCD), inspected the Crosby Salt Lake treating plant located in the Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E; and Section 19, T 8 S, R 29 E, NMPM, Chaves County, New Mexico, on August 8, 1997 and again on May 18, 1998.

The OCD inspection, current file review and conversations with yourself and Mr. A.L. Daugherty indicate that the facility is to be closed however there are some permit deficiencies regarding closure which must be addressed.

The following is a list the permit closure deficiencies found at Crosby Salt Lake during the inspection. Attachment 1 contains photographs taken during the inspection on August 8, 1997 and again on May 18, 1998. Crosby Salt Lake shall provide the OCD with a detailed description of how the corrections will be made and a time table of when each of the corrections will be completed. **A response is required by Crosby Salt Lake to these deficiencies by January 20, 1999.**

1. Process Area:

There was evidence of leaks and deliberate spills around most of the above grade tanks (see pictures 1, 2, 3, 5, 6, 7, 10, 11, and 15 dated 8/8/97 and picture 1 dated 5/18/98). Pictures 1, 2 and 11 show that the small tank was jacked up and the drain port was open and oil was allowed to flow out onto the ground. Some of the spills and the tank bottom dump areas have been disked to allow for bioremediation to begin (pictures 2 and 4 dated 5/18/98).

The surface spill, tank area, and tank bottom dump area (pictures 12 and 13 dated 8/8/98) soils shall either be removed to an OCD approved disposal facility or be further remediated on site. The closure proposal shall include final testing of the soils for total

petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX). The proposal shall also include the reseeding the site with native grasses.

2. Spill Reporting:

All spills/releases shall be reported pursuant to OCD Rule 116. Enclosed please find a spill report form C-141 to be filled out and filed with the appropriate OCD District office.

3. Open Top Tanks and Pits:

To protect migratory birds, all tanks exceeding 16 feet in diameter, and exposed pits and ponds shall be screened, netted or covered unless rendered non hazardous (Order R-8952, Rule 711).

The small open topped tank was not netted. There is a large bird nest on the catwalk between the two tanks (see pictures 1 and 15 dated 8/8/97). Cattle tracks, five dead birds and a dead rodent were found in the spilled oil surrounding the tanks (see pictures 3, 4, 5, and 6 dated 8/8/97).

4. Above Ground Tanks:

If any oil or BS&W remains within the tanks the material shall be hauled to an OCD approved 711 waste management facility. All empty tanks shall be removed from the facility location.

5. Trash and Potentially Hazardous Materials:

All trash and potentially hazardous materials shall be properly disposed of. The contaminated soil at the facility area shall be remediated on sight and/or removed to an OCD approved 711 waste management facility (see picture 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, and 15 dated 8/8/97). The tanks, abandoned flow lines to Crosby Salt Lake (Picture 4 dated 5/18/98), piping, trash and equipment should be recycled or properly disposed of.

*NoRM inscale*

6. Soil Spreading, Disking and Lift Thickness:

All contaminated soils to be landfarmed at the facility will be spread on the surface in six inch lifts or less and disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

7. Historical Facility Spills:

The historical spills that occurred along the flow line to Crosby Salt Lake are still evident (see pictures 8 and 9 dated 8/8/97 and picture 4 dated 5/18/98). The contaminated soil along the flow line route shall be sampled at several intervals and tested for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX). Upon review of the analytical results the OCD will determine if any soil remediation is required.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

A handwritten signature in cursive script, appearing to read "Martyne J. Kieling".

Martyne J. Kieling  
Environmental Geologist

Attachments

xc: Artesia OCD Office  
Hobbs OCD Office  
Mr. A.L. Daugherty, 400 Twin Diamond, Roswell, NM 88201

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)

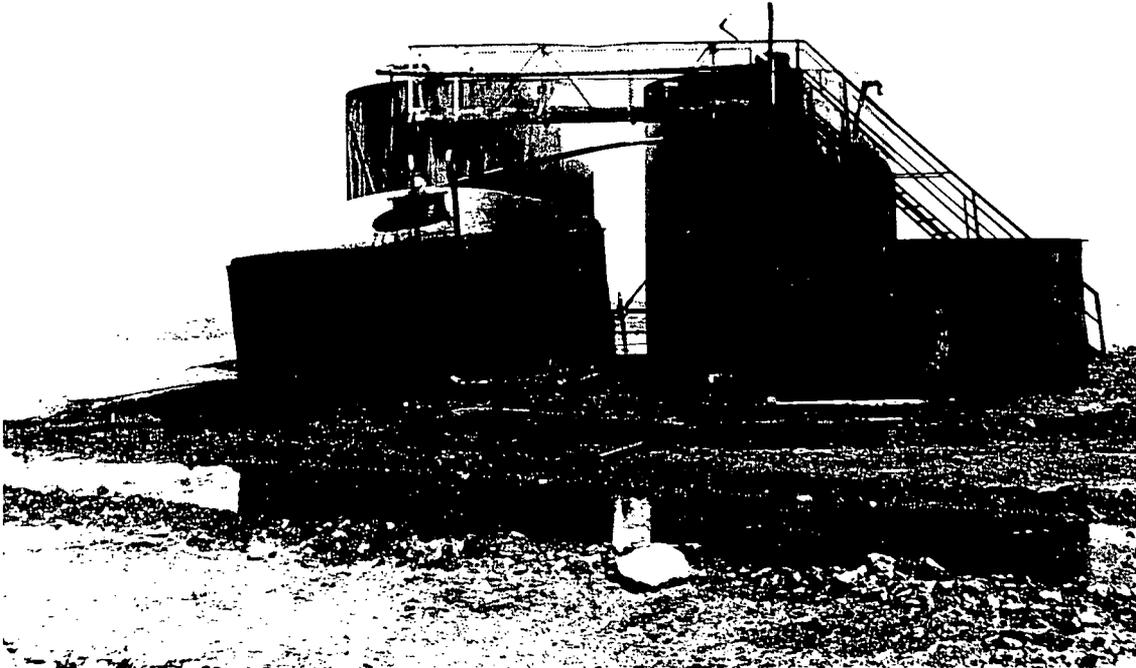


PHOTO NO. 1      DATE: 8/8/97



PHOTO NO. 2      DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



PHOTO NO. 3 DATE: 8/8/97



PHOTO NO. 4 DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



PHOTO NO. 5

DATE: 8/8/97



PHOTO NO. 6

DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)

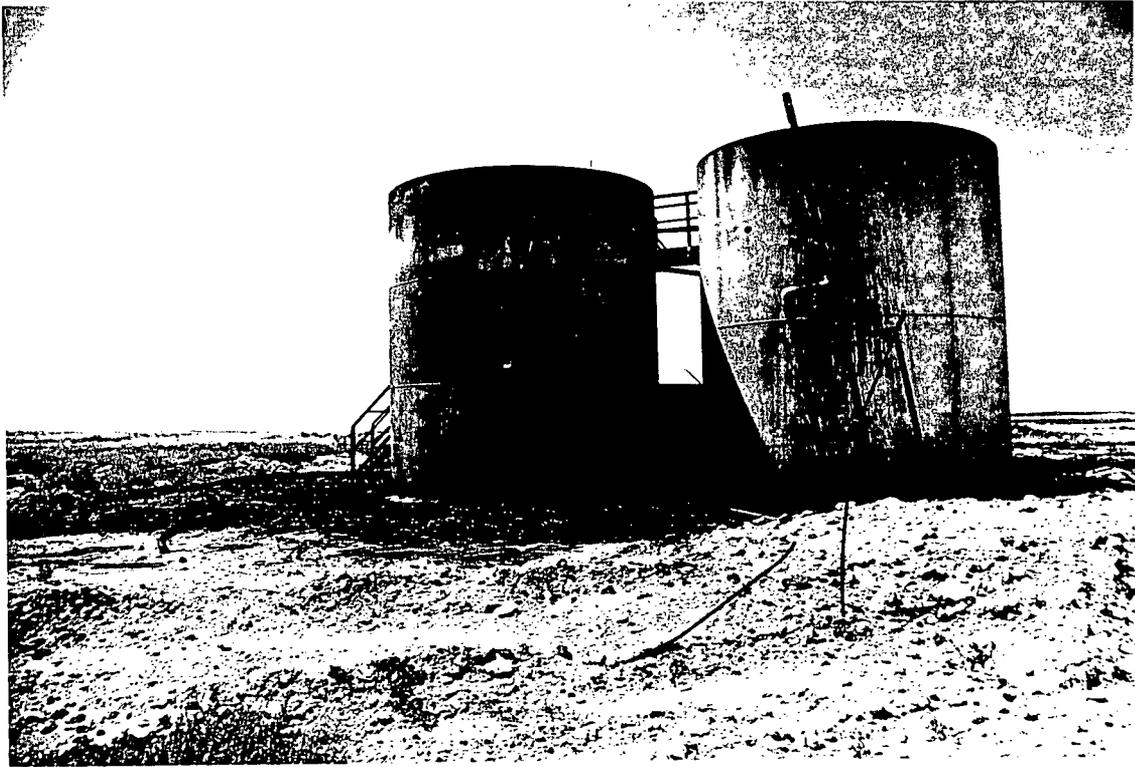


PHOTO NO. 7

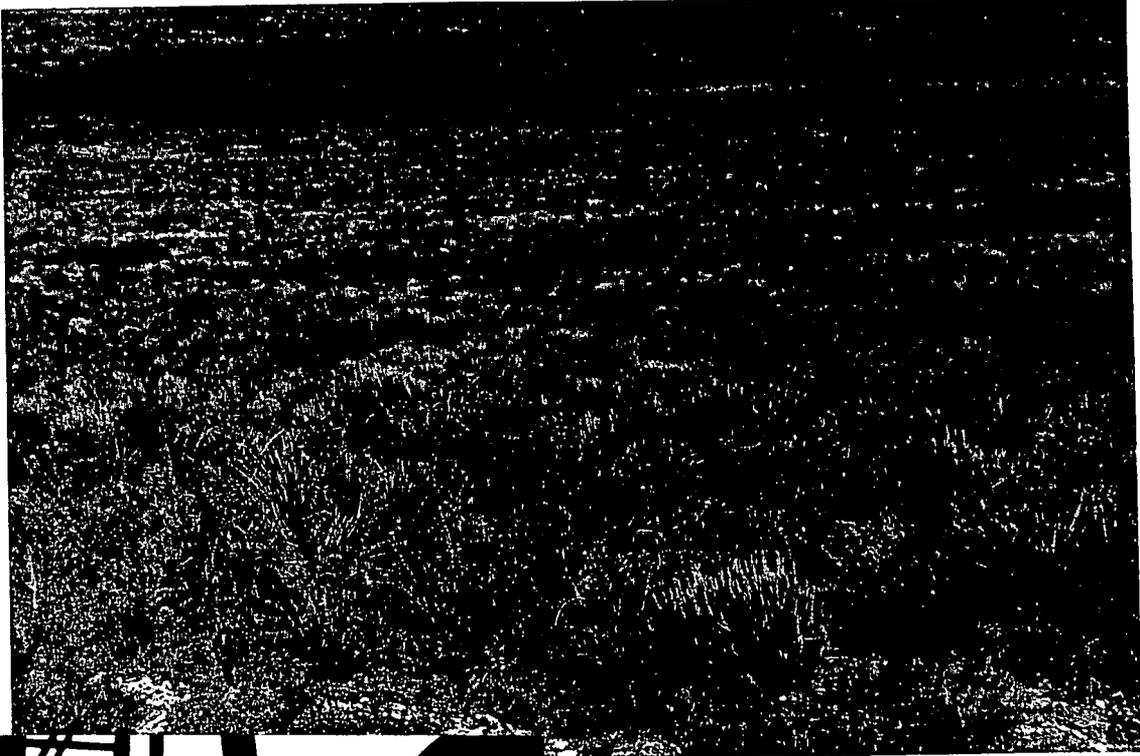
DATE: 8/8/97



PHOTO NO. 8

DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



.9 DATE: 8/8/97

PHOTO NO. 10 DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



11 DATE: 8/8/97



PHOTO NO. 12 DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



PHOTO NO. 13      DATE: 8/8/97

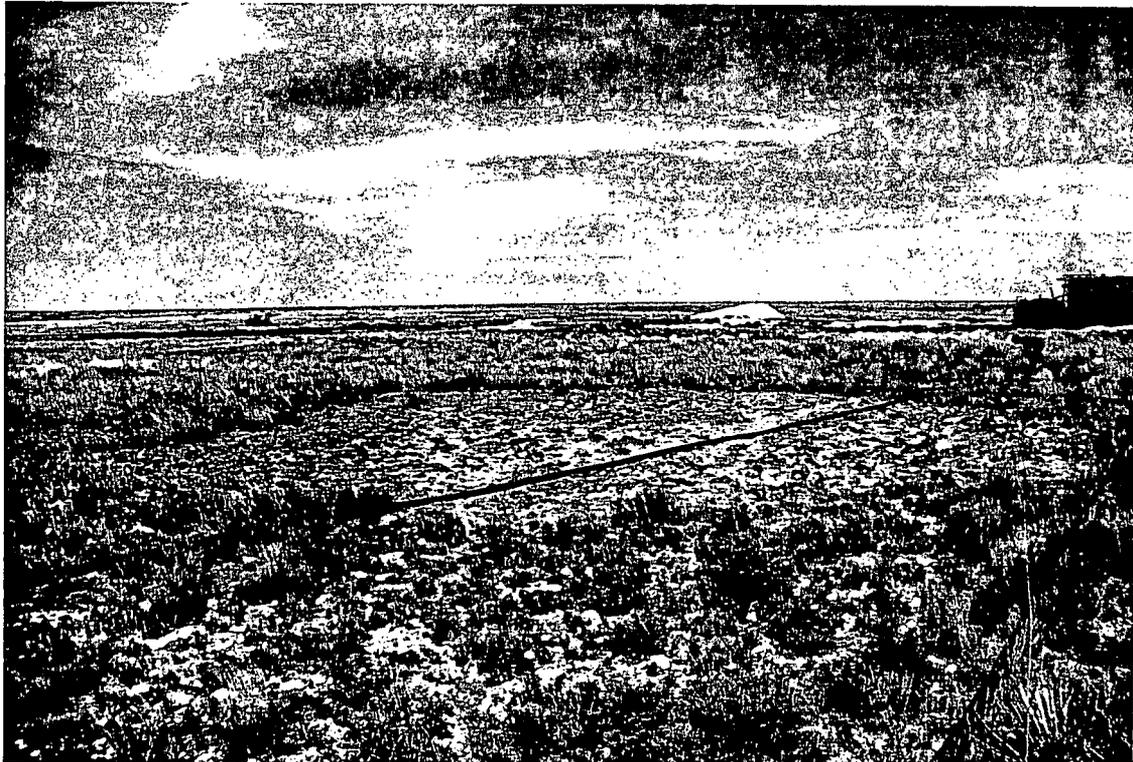


PHOTO NO. 14      DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)

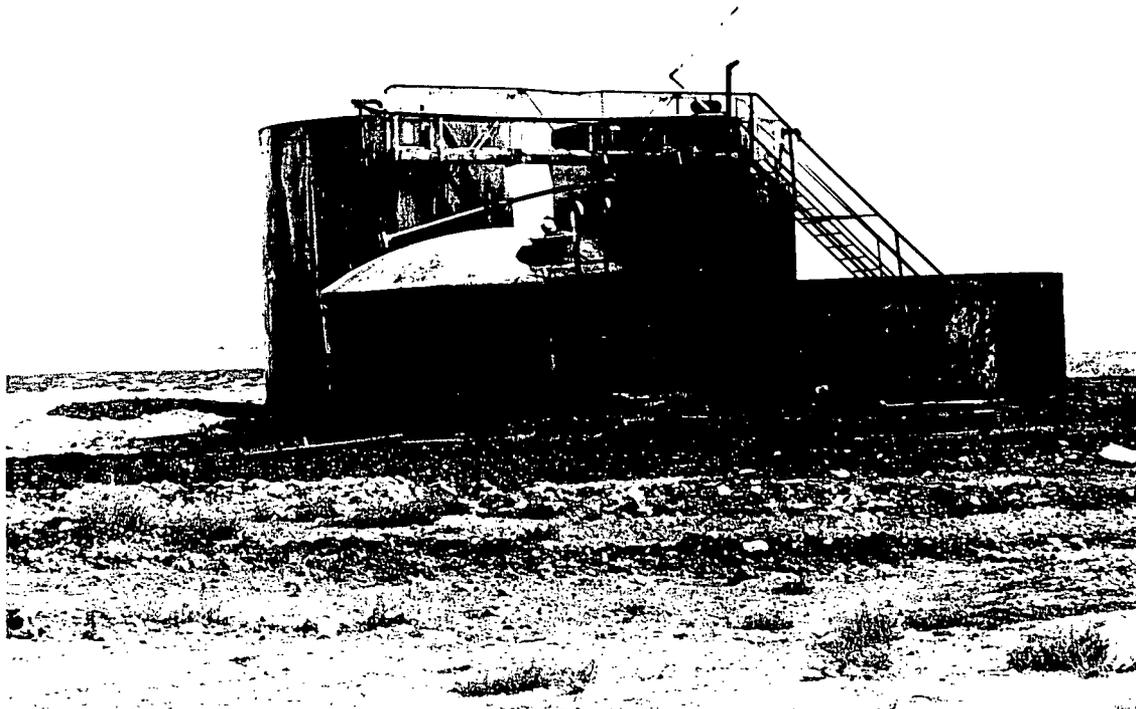


PHOTO NO. 15      DATE: 8/8/97

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)



PHOTO NO. 1      DATE: 5/18/98

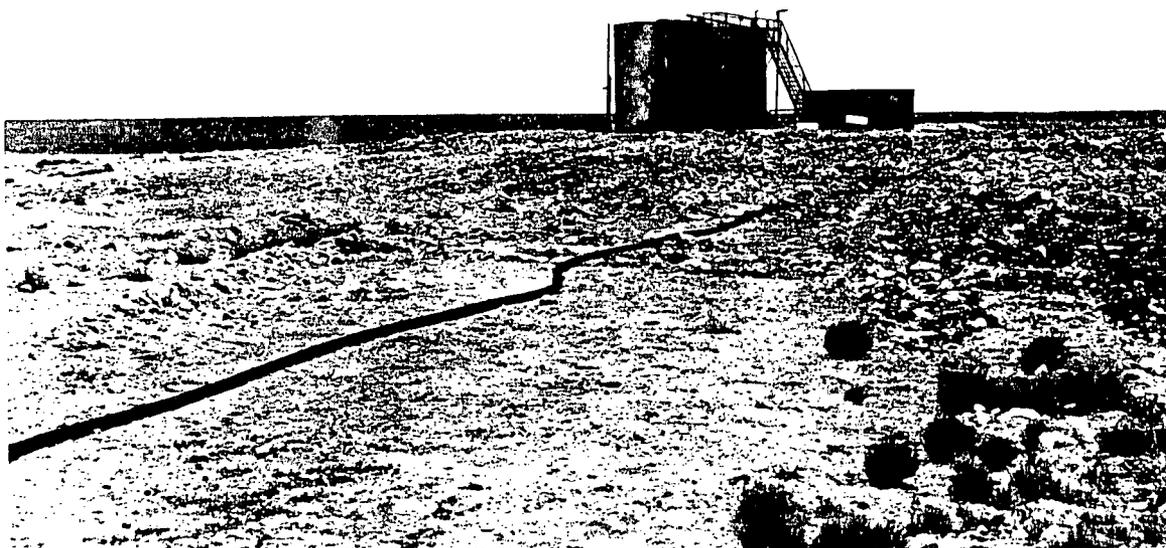


PHOTO NO. 2      DATE: 5/18/98

CROSBY SALT LAKE, 711 FACILITY INSPECTION (PHOTOS BY OCD)

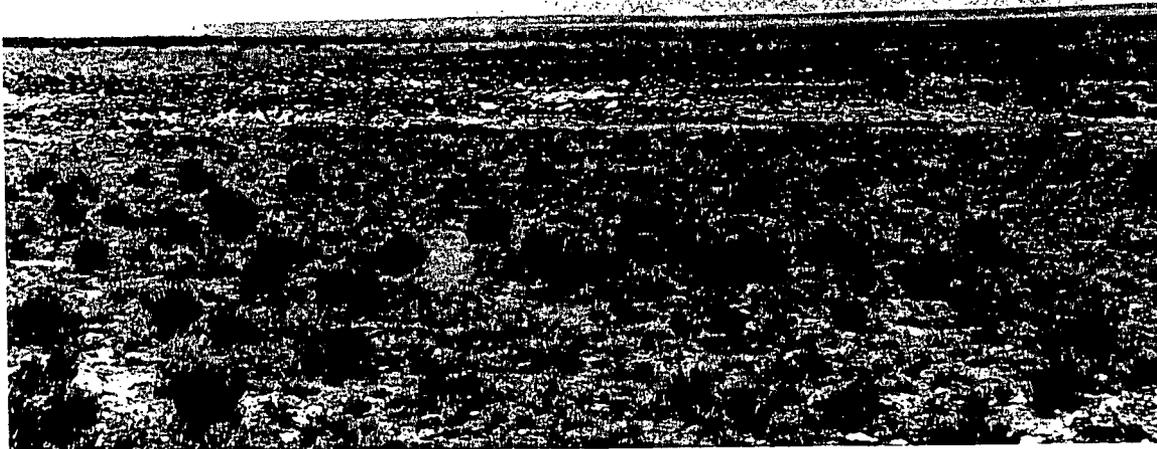


PHOTO NO. 3 DATE: 5/18/98



PHOTO NO. 4 DATE: 5/18/98



**OCD 711 Facility:**  
**Inspection Date:**  
**OCD Personnel:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Picture 11:**

**Treating Plant Tanks,**

**Tank jacked up, open valve, tank contents drained onto ground.**



**OCD 711 Facility:**

**A.L. Daugherty, White Lake Disposal**

**Inspection Date:**

**August 27, 1997**

**OCD Personnel:**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Picture 9:**

**Former Treating Plant spills/ discharge pathway to Playa , Looking Southeast  
Oil contaminated soil center of photo in dark green plants.**



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 12:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Treating Plant Tanks, Looking Southeast**

**Tank bottoms spread on ground North northwest of Tank area**



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 13:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Treating Plant Tanks, Looking Southeast**

**Tank bottoms spread on ground Northwest of Tank area**



**OCD 711 Facility:**

**A.L. Daugherty, White Lake Disposal**

**Inspection Date:**

**August 27, 1997**

**OCD Personnel:**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Picture 10:**

**Treating Plant Tanks, Looking south southwest**

**Oil contaminated soil next to Treating Plant Tanks .**



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 15:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Treating Plant Tanks, Looking Southeast**

**Tank jacked up, valve open, tank contents drained onto ground.**

**Bird nest on catwalk**



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 14:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Treating Plant Tanks, Looking East**

**Brine leak from pipeline.**



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 1:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Treating Plant Tanks, Looking East South East**

**Tank jacked up, valve open, tank contents drained onto ground.**



Crosby Salt Lake

Frank S. Saligson

May 18, 1995

cc'd Marilyn Kielins  
Roger Anderson

AL. Daugherty

Sec 11, T 8 S, R 29 E

Sec 19, T 8 S, R 30 E

Sec 24, T 8 S, R 29 E

AL. Daugherty



Sec 19, T 8 S, R 29 E

Sec 19, T 8 S, R 30 E

Sec 24, T 8 S, R 29 E

Crosby Salt Lake

Frakes S. Seeligson / AL Doughterty

May 18, 1998

OCD  
Marlyne K. Kling  
Roger Anderson

AL Doughterty



Sec 19, T 8 S, R 29 E  
Sec 19, T 8 S, R 30 E  
Sec 24, T 8 S, R 29 E

Crosby Salt Lake

Frank S. Seeligson / AL Daugherty

May 18, 1948

o/c D Martine Kieling  
Roger Anderson

A.L. Daugherty



Sec. 19, T 0 S, R 29 E

Sec 19, T 8 S, R 30 E

Sec 24, T 8 S, R 29 E

CROSBY SALT LAKE

FRATES S. SEELIBSON / AL. DAUGHERTY

MAY 18, 1998

OLD MARTYNE KIELING  
ROGER ANDERSON

AL. DAUGHERTY



OCD 711 Facility: A.L. Daugherty, White Lake Disposal  
Inspection Date: August 27, 1997  
OCD Personnel: Martyne Kieling, Santa Fe  
Ray Smith, Artesia

Picture 9: Former Treating Plant spills/ discharge pathway to Playa , Looking Southeast  
Oil contaminated soil center of photo in dark green plants.



OCD 711 Facility:  
Inspection Date:  
OCD Personnel:

A.L. Daugherty, White Lake Disposal  
August 27, 1997

Martyne Kieling, Santa Fe  
Ray Smith, Artesia

Picture 6:

Oil contaminated soil next to Treating Plant Tanks,  
Oily soil dead bird in center of photo.



OCD 711 Facility:

A.L. Daugherty, White Lake Disposal

Inspection Date:

August 27, 1997

OCD Personnel:

Martyne Kieling, Santa Fe

Ray Smith, Artesia

Picture 5:

Oil contaminated soil next to Treating Plant Tanks,

Oily soil with hoof prints, large dead bird in center of photo.



OCD 711 Facility:  
Inspection Date:  
OCD Personnel:

Picture 4:

A.L. Daugherty, White Lake Disposal  
August 27, 1997  
Martyne Kieling, Santa Fe  
Ray Smith, Artesia  
Oil contaminated soil next to Treating Plant Tanks,  
Oily soil with hoof prints, large dead bird in center of photo.



**OCD 711 Facility:**

**Inspection Date:**

**OCD Personnel:**

**Picture 3:**

**A.L. Daugherty, White Lake Disposal**

**August 27, 1997**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Oil contaminated soil next to Treating Plant Tanks,  
Oily soil with hoof prints, dead bird in center of photo,  
dead rodent bottom right.**



**OCD 711 Facility:**

**A.L. Daugherty, White Lake Disposal**

**Inspection Date:**

**August 27, 1997**

**OCD Personnel:**

**Martyne Kieling, Santa Fe**

**Ray Smith, Artesia**

**Picture 2:**

**Treating Plant Tanks, Looking East North East**

**Tank jacked up, valve open, tank contents oil/bottoms/water drained  
onto ground**



OCD 711 Facility:

Inspection Date:

OCD Personnel:

Picture 7:

A.L. Daugherty, White Lake Disposal

August 27, 1997

Martyne Kieling, Santa Fe

Ray Smith, Artesia

Treating Plant Tanks, Looking Northwest

Oil contaminated soil next to Treating Plant Tanks,

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 1:20	Date 10-23-98
<u>Originating Party</u>		<u>Other Parties</u>
AL Daugherty p(505) 625-1867		
<u>Subject</u> 400 Twin Diamond Roswell, NM 88201		
<u>Discussion</u> Copy on correspondence; wrap this up by Christmas. Inspection Report.		
<u>Conclusions or Agreements</u>		
<u>Distribution</u>	Signed Martyn G. [Signature]	

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 11:20	Date 4/14/98
---	---------------	-----------------

<u>Originating Party</u> <del>Franks Seeligson Secretary</del> Marilyn Kielig	<u>Other Parties</u> <del>Marilyn</del> Franks Seeligson Secretary
---	--

Subject AL Daughter's Treating Plant

Discussion Left message concerning the ~~start up~~ / Inspection Date  
May 18 1:00 pm. Have called & talked to AL. And  
He was willing to meet at the site

I will call & confirm Date & Time two weeks prior.

Conclusions or Agreements

Distribution Signed Marilyn Kielig

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 11:15	Date 4/14/98
---	---------------	-----------------

α

<u>Originating Party</u>	<u>Other Parties</u>
<del>A.L. Daugherty</del> Martyne Kieling	<del>Martyne Kieling</del> A.L. Daugherty

Subject AL Daugherty Treating Plant Final Inspection  
505-625-1867    Roswell

Discussion Tentative Date to Tour Facility at 1:00 pm May 18<sup>th</sup>  
Call Back and confirm Date on May 4<sup>th</sup> - - - - -

Conclusions or Agreements

Distribution

Signed *Martyne Kieling*



# FRATES SEELIGSON

4040 Broadway - Suite 510  
San Antonio, TX 78209

Telephone 210-826-5645  
Fax 210-826-5689

April 9, 1998

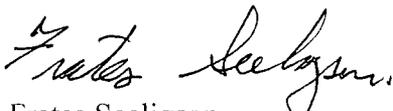
Ms. Martyne J. Kieling, Environmental Geologist  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, NM 87505

RE: \$25,000 Bond for Commercial Surface Waste Disposal facility  
Fireman's Fund Ins. Co., Surety Bond No. 111 3268 3654  
Your Letter of 3/30/98

Dear Ms. Kieling:

Once you have a date certain when you wish to visit the Chaves County property, please let me know. We will help set up a meeting with A. L. Daugherty, former foreman of White Lake Ranch. If you wish to contact Mr. Daugherty directly, please call him at 505-625-1867 in Roswell. In addition, I will write the new owner of the ranch notifying him of what we would like to do.

Best regards,

  
Frates Seeligson

Daughtery

STATE OF  
NEW MEXICO  
OIL  
CONSERVATION  
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 10:40	Date 4/9/98
---	---------------	----------------

<u>Originating Party</u> First called 4/3/98 left message Frakes Seeligson 210-826-5649 White Lake Ranch	<u>Other Parties</u> Martyne Kierling
--	--

Subject  
 AL Daughtery Treating Plant  
 Forman ↑ ran site

Discussion  
 site closure, Bond, and Inspection.  
 Mr. Seeligson will Fax AL Daughtery Phone # and a copy of  
 a letter he will write to The New Land owners.  
 The property has been sold.

I told Mr Seeligson that I would like to inspect the site  
 2 or 3rd week of May with a Company Representative on site.

Conclusions or Agreements  
 Wait for Fax with #Phone

Distribution

Signed  
 Martyne J. Kierling



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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

March 30, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-413**

Ms. Cindy Ash  
Fireman's Fund Insurance Companies  
P.O. Box 2519  
Dallas, TX 75221

**RE: \$25,000 Bond for Commercial Surface Waste Disposal facility  
Frates S. Seeligson., Principal  
Section 19, T 8 S, R 30 E; Section 24, T 8 S, R 29 E; and Section 19, T 8 S, R 29 E, NMPM,  
Chaves County, New Mexico  
Fireman's Fund Insurance Co., Surety  
Bond No. 111 3268 3654**

Dear Ms. Ash:

The New Mexico Oil Conservation Division (OCD) received the Fireman's Fund Insurance Company letter on March 23, 1998. The above referenced letter requested that the OCD cancel the Surface Waste Disposal Bond No. 111 3268 3654. Cancellation of the bond is conditional upon compliance with all applicable statutes of the State of New Mexico and all rules, regulations and orders of the OCD, and upon clean-up of the facility site to standards of the OCD.

The Frates S. Seeligson surface waste disposal facility was inspected on August 27, 1997 by OCD personnel. The facility site requires additional clean-up to meet OCD standards. Since the activities/operations giving rise to the needed cleanup have already been conducted the subject bond will remain in full force and effect until the required clean-up is performed and closure of the facility is approved by the OCD.

If you have any questions please call me at (505) 827-7153

Sincerely,

Martyne J. Kieling  
Environmental Geologist

xc: Artesia District Office  
Frates S. Seeligson, 4040 Broadway, Suite 510, San Antonio, Texas 78205



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



MEMORANDUM

BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

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

TO: ALL COMMERCIAL SURFACE DISPOSAL FACILITIES

FROM: WILLIAM J. LEMAY, Director *WJL*  
Oil Conservation Division

SUBJECT: DOCUMENTATION REQUIRED FOR ACCEPTANCE OF WASTE

DATE: APRIL 2, 1993

---

The Oil Conservation Division (OCD) has issued a number of Rule 711 permits for commercial surface disposal facilities which allow the facilities to accept certain types of wastes. The OCD has not previously listed the documentation that should accompany all waste accepted at these facilities. Attached is a list of the documentation to accompany any waste accepted by an OCD-permitted commercial disposal facility. Listed are the certifications and tests required for the various classifications of waste. Also attached is a list of the oil and gas wastes exempted from EPA "hazardous waste" classification.

This documentation provides protection from hazardous waste regulations for the waste generator, transporter and disposal facility and facilitates OCD oversight. Please note that certain types of non-oilfield wastes can also be accepted by a disposal facility under its OCD Rule 711 permit. The OCD is currently in the process of developing an information form to accompany each load of waste received at a disposal facility. Until that form is finalized, each facility may develop and use its own forms and shall retain these records at the facility.

If you have any questions regarding the technical aspects of the documentation needed, please call **Roger Anderson** at **505/827-5812**.

**DOCUMENTATION REQUIRED TO ACCEPT WASTES  
COMMERCIAL SURFACE DISPOSAL FACILITIES**

(April 1, 1993)

1. Exempt Oilfield Waste: A "Certification of Waste Status" signed by a corporate official of the waste generator certifying that the wastes are generated from oil and gas exploration and production operations and are exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C regulations.
  
2. Exempt, Non-Oilfield Waste: A "Certification of Waste Status" signed by the New Mexico Environment Department (NMED) or the appropriate regulatory agency for non-oilfield wastes which are exempt from RCRA Subtitle C regulations. Acceptance is on a case-by-case basis only after OCD approval from both Santa Fe and the appropriate district office.
  
3. Non-exempt, Non-hazardous Waste from OCD Permitted Facilities: The analytical results of \*Hazardous Waste Characterization. The test for hazardous characteristics for a particular waste may be effective for one year from the date of analysis, if, the subsequent wastes from the same waste stream are accompanied by a statement from a corporate official that there has been no change in the processes employed or the chemicals stored/used at the facility generating the waste. Acceptance is on a case-by-case basis only after OCD approval from both Santa Fe and the appropriate district office.
  
4. Non-Exempt, Non-hazardous, Non-Oilfield Waste: The analytical results of \*Hazardous Waste Characterization **and** a "Certification of Waste Status" certifying the non-hazardous classification of the wastes signed by the NMED or appropriate regulatory agency. Acceptance of waste is on a case-by-case basis only after OCD approval from both Santa Fe and the appropriate district.
  
5. Hazardous Waste: At no time will wastes which are hazardous by either listing or testing be accepted at an OCD permitted disposal facility.

\* Includes corrosivity, reactivity, ignitability, and toxic constituents and a certification that no listed hazardous wastes are contained within the wastes. The samples for these analyses and results will be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures.

**NOTES:**

1. As of September 25, 1990, any facility disposing of 1.1 tons or more of non-exempt waste per month with benzene as a constituent (e.g. oily liquid or solids, or aromatic wastes) is disposing of hazardous waste if, after testing, benzene levels of liquids, and of liquid leachate from solids are above 0.5 milligrams per liter (equivalent to 500 parts per billion). Benzene is a naturally occurring constituent of crude oil and refined product (especially gasoline), and is also used as a cleaning solvent. (Other types of solvents and chemicals have been subject to hazardous waste rules for several years.)

As of March 29, 1991, facilities disposing of between 0.11 and 1.1 tons of non-exempt waste per month became subject to the same rules. Regulation of such facilities is the responsibility of either the US Environmental Protection Agency or the New Mexico Environment Department (dependent on jurisdiction transfer from USEPA).

The following OCD regulated facilities, especially, may be subject to hazardous waste rules for disposal of wastes and contaminated soils containing benzene:

- Oil and gas service companies having wastes such as vacuum truck, tank, and drum rinseate from trucks, tanks and drums transporting or containing non-exempt waste.
- Crude oil treating plants and crude tank bottom reclaimers using benzene solvent, or liquids containing benzene as cleaning solutions.
- Transportation pipelines and mainline compressor stations generating waste, including waste deposited in transportation pipeline-related pits.

Source: Federal Register, Thursday, March 29, 1990, p.11,798 - 11,877.

2. In April, 1991, EPA clarified the status of oil and tank bottom reclamation facilities:
  - A. Those wastes that are derived from the processing by reclaimers of only exempt wastes from primary oil and gas field operations are also exempt from the hazardous waste requirements. For example, wastes generated from the process of recovering crude oil from tank bottoms are exempt because the crude storage tanks are exempt.
  - B. Those reclaimer wastes derived from non-exempt wastes (eg. reclamation of used motor oil, refined product tank bottoms), or that otherwise contain material which are not uniquely associated with or intrinsic to primary exploration and production field operations would not be exempt. An example of such non-exempt wastes would be waste solvent generated from the solvent cleaning of tank trucks that are used to transport oil field tank bottoms. The use of solvent is neither unique nor intrinsic to the production of crude oil.

Source: EPA Office of Solid Waste and Emergency Response letter opinion dated April 2, 1991, signed by Don R. Clay, Assistant Administrator.

## EPA WASTE CLASSIFICATION O & G EXPLORATION AND PRODUCTION WASTES\*

Oil and Natural Gas Exploration and Production Materials and Wastes Exempted by EPA from Consideration as "Hazardous Wastes" (provided non-exempt waste which is or may be "hazardous" has not been added):

- . Produced water;
- . Drilling fluids;
- . Drill cuttings;
- . Rigwash;
- . Drilling fluids and cuttings from offshore operations disposed of onshore;
- . Geothermal production fluids;
- . Hydrogen sulfide abatement wastes from geothermal energy production;
- . Well completion, treatment, and stimulation fluids;
- . Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste;
- . Accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments;
- . Pit sludges and contaminated bottoms from storage or disposal of exempt wastes;
- . Workover wastes;
- . Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves;
- . Gas plant sweetening wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge;
- . Cooling tower blowdown;
- . Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste steam);
- . Packing fluids;
- . Produced sand;
- . Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation;
- . Hydrocarbon-bearing soil;
- . Pigging wastes from gathering lines;
- . Wastes from subsurface gas storage and retrieval, except for nonexempt wastes listed below;
- . Constituents removed from produced water before it is injected or otherwise disposed of;
- . Liquid hydrocarbons removed from the production stream but not from oil refining;
- . Gases from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons;
- . Materials ejected from a producing well during the process known as blowdown;
- . Waste crude oil from primary field operations and production;
- . Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment;
- . *Liquid and solid wastes generated by crude oil and crude tank bottom reclaimers\*\*\*.*

Materials and Wastes Not Exempted (may be a "hazardous waste" if tests or EPA listing define as "hazardous") \*\*:

- . Unused fracturing fluids or acids;
- . Gas plant cooling tower cleaning wastes;
- . Painting wastes;
- . Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids;
- . Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste;
- . Refinery wastes;
- . *Liquid and solid wastes generated by refined oil and product tank bottom reclaimers\*\*\*;*
- . Used equipment lubrication oils;
- . Waste compressor oil, filters, and blowdown;
- . Used hydraulic fluids;
- . Waste solvents;
- . Waste in transportation pipeline-related pits;
- . Caustic or acid cleaners;
- . Boiler cleaning wastes;
- . Boiler refractory bricks;
- . Boiler scrubber fluids, sludges, and ash;
- . Incinerator ash;
- . Laboratory wastes;
- . Sanitary wastes;
- . Pesticide wastes;
- . Radioactive tracer wastes;
- . Drums, insulation, and miscellaneous solids.

\* Source: Federal Register, Wednesday, July 6, 1988, p.25,446 - 25,459.

\*\* See important note on 1990 disposal restrictions for non-exempt waste on reverse.

\*\*\* See reverse side for explanation of oil and tank bottom reclaimer listings.



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

GARREY CARRUTHERS  
GOVERNOR

March 1, 1990

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

Mr. Frates S. Seeligson  
1604 NBC Building  
San Antonio, Texas 78205

Re: \$25,000 Bond for Commercial Surface  
Waste Disposal Facilities  
Frates S. Seeligson, Principal  
Bond No. 111 3268 3654

Dear Mr. Seeligson:

We have corresponded with you previously requesting a rider to your bond giving the location of your facility as:

Section 19, T-8-S, R-30-E  
Section 24, T-8-S, R-29-E and  
Section 19, T-8-S, R-29-E,  
all in Chaves County, New Mexico.

We have not yet received that rider as requested.

You are hereby directed to file the rider with Diane Richardson, Administrator of the OCD Bond Department, at the letterhead address not later than 3:00 p.m. on March 9, 1990.

If you fail to file the rider as required, you will immediately cease operations at the facility and begin reclamation. Your failure to comply with this directive will result in a civil assessment being made against you, and each day of violation will be considered a separate offense for which a separate assessment will be assessed.

Sincerely,

A handwritten signature in cursive script, appearing to read "William J. Lemax".

WILLIAM J. LEMAX,  
Director

WJL/RGS/dr

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

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

OIL CONSERVATION DIVISION  
RECEIVED  
89 OCT 13 PM 8 12  
Form No. A-020  
(For Division Use Only)

APPLICATION FOR EXCEPTION TO DIVISION ORDER R-8952  
FOR PROTECTION OF MIGRATORY BIRDS Rule 8(b), Rule 105(b), Rule 312(h), Rule 313, or Rule 711(I)

Operator Name: A.L. Dougherty

Operator Address: HCR 31 Roswell, New Mexico 88210

Lease or Facility Name Crosby Salt Lake Location 19 8S 29E

Size of pit or tank: Approximately 80 Acres  
Ut. Ltr. Sec. Twp. Rge

Operator requests exception from the requirement to screen, net or cover the pit or tank at the above-described facility.

The pit or tank is not hazardous to migratory waterfowl. Describe completely the reason pit is non-hazardous.  
The lake is kept free of oil.

1) If any oil or hydrocarbons should reach this facility give method and time required for removal:  
If any oil or hydrocarbons reach the lake,  
clean up will begin immediately.

2) If any oil or hydrocarbons reach the above-described facility the operator is required to notify the appropriate District Office of the OCD with 24 hours.

Operator proposes the following alternate protective measures:

CERTIFICATION BY OPERATOR: I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature A.L. Dougherty Title Operator Date \_\_\_\_\_

Printed Name A.L. Dougherty Telephone No. (505) 623-2657

FOR OIL CONSERVATION DIVISION USE

Date Facility Inspected 8/22/89

Inspected by mw + JS

Approved by Mike Williams

Title Dist Supervisor

Date 9/20/89



## ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

## OIL CONSERVATION DIVISION

GARREY CARRUTHERS  
GOVERNOR

February 21, 1989

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-106 675 481**Mr. A. L. Daugherty  
Clovis Star Route  
Roswell, New Mexico 88210**RE: Crosby Salt Lake Disposal Facility**  
**Chaves County, New Mexico**

Dear Mr. Daugherty:

Commercial surface waste disposal facilities in New Mexico are now regulated by Oil Conservation Division (OCD) Rule 711 (enclosed). This rule, which became effective June 6, 1988, outlines specific information required by the OCD to permit commercial surface disposal facilities. Although your operations were permitted by the Division through a hearing process, certain information now required by Rule 711 must be supplied by you in order for them to come into compliance with the new rule. Both of your tank facilities (Section 36, Township 8 South, Range 29 East and Section 19, Township 8 South, Range 30 East) that discharge into Crosby Salt Lake will be treated as one facility for permitting and bonding purposes. Both facilities shall be addressed in the below requirements.

The following information must be furnished to the OCD within 120 days of receipt of this letter:

## 1. Principals

Supply the names, phone numbers and addresses of all owners and the official contact person for the permitted facility.

## 2. Description

Supply descriptions of the facilities including detailed diagrams of all fences, cattleguards, pits, dikes, piping, and tanks. Include in your description the security measures that are in place or will be instituted to prevent any unauthorized disposal at the facilities.

## 3. Contingency Plan

Submit a contingency plan for reporting and clean up of any spills, leaks or releases.

## 4. Maintenance

Submit a routine inspection and maintenance plan to ensure permit compliance. Include the inspection frequency and maintenance of all berms, pits, tanks, piping, water levels and siphons.

5. Closure Plan

Submit a plan for closure of the facility. The plan should include, but is not limited to the removal of fluids and chemicals, backfilling of pits, disposition of contaminated soils, disposition of buildings, tanks, vessels, equipment or hardware, and general reclamation and restoration of the site to as close to its original condition as practical.

6. Affidavit

Certification by an authorized representative that information submitted is true, accurate, and complete to the best of the applicants knowledge.

Public Notice requirements were fulfilled through the hearing process, so no additional public notice is required.

If you have not already fulfilled the \$25,000 bond requirement or the annual status report, you must begin this process immediately.

District personnel in the Artesia District have inspection and enforcement authority within their district to ensure compliance with OCD Rule 711 and permit conditions placed on individual disposal facilities.

If you have questions, please do not hesitate to contact me at (505) 827-5884, or Mr. Mike Williams, Artesia District, at (505) 748-1283.

Sincerely,



Roger C. Anderson  
Environmental Engineer

RCA/sl

Enclosure

cc: OCD Artesia Office  
OCD Hobbs Office

CHECKLIST FOR COMPLIANCE WITH RULE 711

Facility Name and Mailing Address: *CONCRETE PAVING PLANT* *88210*

Order No.: *R-5464*

Location: *24-85-27E + 19-85-30E*

Contact Person: *A.L. DAUGHERTY - STATES SECURITY, 111 BANK & COMMERCE BLDG, SPANISH*  
*CHAS. F. MALONE, ATTORNEY AT LAW, 111 BANK & COMMERCE BLDG, SPANISH*

Date of Review:

- ✓ 1. Plat and topo maps showing location in relation to governmental surveys and roads, watercourses, water wells and dwellings within one mile.
- ✓ 2. Names and addresses of facility site landowners and landowners of record within one-half mile.
3. Description of facility with a diagram indicating location of fences and cattleguards, and detailed engineering construction/installation diagrams of pits, liners, dikes, piping, sprayers, and tanks.
- ✓ 4. Plan for disposal of approved waste solids or liquids.
5. Contingency plan for reporting and cleanup of spills or releases.
6. Routine inspection and maintenance plan.
7. Closure plan.
- ✓ 8. Geohydrological evidence that fresh water will not be affected.
9. a. Proof that owners and occupants within  $\frac{1}{2}$  mile were notified.  
b. OCD public notice.
10. Affidavit of verification.
11. Bond (required by 12/30/88 for current facilities).

Lab No.

Accu-LABS  
77-521.07-123

ORGANIC ANALYSIS REQUEST FORM

17

REPORT TO: DAVID BOYER  
N.M. OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, NM 87504-2088

Sample No. 8903311255  
DATE REC. \_\_\_\_\_  
PRIORITY \_\_\_\_\_  
PHONE(S): 827-5812

COLLECTION CITY: \_\_\_\_\_; COUNTY: chaves

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 89|03|31|12|55

LOCATION CODE: (Township-Range-Section-Tracts) 10+1R+23 + | + | | (10N06E24S42)

SUBMITTER: David Boyer

SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: \_\_\_\_\_

This form accompanies 2 Septum Vials, \_\_\_\_\_ Glass Jugs, and/or \_\_\_\_\_

Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice Sample stored in an ice bath (Not Frozen).
- P-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

**ANALYSES REQUESTED:** Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- (753) Aliphatic Headspace (1-5 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (785) Mass Spectrometer Purgeables
- (786) Trihalomethanes
- (774) SDWA VOC's I (8 Regulated +)
- (775) SDWA VOC's II (EDB & DBCP)
- Other Specific Compounds or Classes \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

EXTRACTABLE SCREENS

- (751) Aliphatic Hydrocarbons
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

Remarks: \_\_\_\_\_

**FIELD DATA:**

pH= \_\_\_\_\_; Conductivity= ~50,000 umho/cm at \_\_\_\_\_ °C; Chlorine Residual= \_\_\_\_\_ mg/l  
Dissolved Oxygen= \_\_\_\_\_ mg/l; Alkalinity= \_\_\_\_\_ mg/l; Flow Rate= \_\_\_\_\_ / \_\_\_\_\_  
Depth to water \_\_\_\_\_ ft.; Depth of well \_\_\_\_\_ ft.; Perforation Interval \_\_\_\_\_ - \_\_\_\_\_ ft.; Casing: \_\_\_\_\_

Sampling Location, Methods and Remarks (i.e. odors, etc.)  
Broke Tank (Crosby Salt) Lake - Sample from ~~West~~ <sup>S.E.</sup> side of dike at North end of lake.

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David A Boyer Method of Shipment to the Lab: Freight Express

**CHAIN OF CUSTODY**

I certify that this sample was transferred from DB to Dm  
at (location) ALR on 4/5/89 - 12:25 and that  
the statements in this block are correct. Evidentiary Seal: Not Sealed  OR Seals Intact: Yes  No   
Signatures: David A Boyer

For OCD use: Date owner notified: 6/19/89 Phone or Letter? Initials: DB

Mr. David Boyer  
NM Oil Conservation Division

RECEIVED

RE: 9649-29859-20  
Date Samples Rec'd: 4-5-89  
P.O. No. 77-521.07-123

MAY 17 1989

OIL CONSERVATION DIV.  
SANTA FE

REPORT OF ANALYSIS

ALR Designation	9649-29859-20-16	9649-29859-20-17	9649-29859-20-18
Sponsor Designation	8903301440 3-30-89	8903311255 3-31-89	8904032115 Trip Blank 4-3-89

GC/MS VOLATILE ORGANICS, µg/L:

Chloromethane	<10	<10	<10
Bromomethane	<10	<10	<10
Vinyl chloride	<10	<10	<10
Chloroethane	<10	<10	<10
Methylene chloride	<5	<5	<5
1,1-Dichloroethene	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5
Total 1,2-Dichloroethene	<5	<5	<5
Chloroform	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5
Carbon tetrachloride	<5	<5	<5
Bromodichloromethane	<5	<5	<5
1,2-Dichloropropane	<5	<5	<5
c-1,3-Dichloropropene	<5	<5	<5
Trichloroethene	<5	<5	<5
Benzene	<5	<5	<5
Dibromochloromethane	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5
t-1,3-Dichloropropene	<5	<5	<5
2-Chloroethylvinyl ether	<5	<5	<5
Bromoform	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5
Tetrachloroethene	<5	<5	<5

May 9, 1989  
Page 16 of 18

Mr. David Boyer  
NM Oil Conservation Division

RE: 9649-29859-20  
Date Samples Rec'd: 4-5-89  
P.O. No. 77-521.07-123

REC'D

MAY 17 1989  
OIL CONSERVATION DIV.  
SANTA FE

REPORT OF ANALYSIS

ALR Designation	9649-29859-20-16	9649-29859-20-17	9649-29859-20-18
Sponsor Designation	8903301440 3-30-89	8903311255 3-31-89	8904032115 Trip Blank 4-3-89

Determination: µg/L

Toluene	<5	<5	<5
Chlorobenzene	<5	<5	<5
Ethyl benzene	<5	<5	<5
Total Dichlorobenzenes	<5	<5	<5
Total Xylenes	<5	<5	<5

754  
wpu



SCIENTIFIC LABORATORY DIVISION  
ORGANIC ANALYSIS REQUEST FORM  
Organic Section - Phone: 841-2570

89-38C

REPORT TO: DAVID BOYER S.L.D. No. OR-  
N.M. OIL CONSERVATION DIVISION DATE REC. 1-19-89  
P.O. Box 2088 PRIORITY IS  
Santa Fe, NM 87504-2088 PHONE(S): 827-5812  
COLLECTION CITY: Roswell - NE of City; COUNTY: Chaves  
COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 8 9 10 11 12 11 11 15  
LOCATION CODE: (Township-Range-Section-Tracts) 08S+30E+19+133 (10N06E24342)  
USER CODE: 8 2 2 3 5 SUBMITTER: David Boyer CODE: 2 6 1 0  
SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: \_\_\_\_\_

This form accompanies 2 Septum Vials, \_\_\_\_\_ Glass Jugs, and/or \_\_\_\_\_  
Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice Sample stored in an ice bath (Not Frozen).
- P-AA Sample Preserved with Ascorbic Acid to remove chlorine residual.
- P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

RECEIVED

APR 27 1989

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analysis required. Whenever possible list specific compounds suspected or required. OIL CONSERVATION DIV. SANTA FE

- | PURGEABLE SCREENS   | EXTRACTABLE SCREENS  |
|---|--|
| <input type="checkbox"/> (753) Aliphatic Headspace (1-5 Carbons)            | <input type="checkbox"/> (751) Aliphatic Hydrocarbons            |
| <input checked="" type="checkbox"/> (754) Aromatic & Halogenated Purgeables | <input type="checkbox"/> (755) Base/Neutral Extractables         |
| <input type="checkbox"/> (765) Mass Spectrometer Purgeables                 | <input type="checkbox"/> (758) Herbicides, Chlorophenoxy acid    |
| <input type="checkbox"/> (766) Trihalomethanes                              | <input type="checkbox"/> (759) Herbicides, Triazines             |
| <input type="checkbox"/> (774) SDWA VOC's I (8 Regulated +)                 | <input type="checkbox"/> (760) Organochlorine Pesticides         |
| <input type="checkbox"/> (775) SDWA VOC's II (EDB & DBCP)                   | <input type="checkbox"/> (761) Organophosphate Pesticides        |
| <input type="checkbox"/> Other Specific Compounds or Classes                | <input type="checkbox"/> (767) Polychlorinated Biphenyls (PCB's) |
| <input type="checkbox"/>  | <input type="checkbox"/> (764) Polynuclear Aromatic Hydrocarbons |
| <input type="checkbox"/>  | <input type="checkbox"/> (762) SDWA Pesticides & Herbicides      |

Remarks: Halogenated 10ppm or less if possible

FIELD DATA: 44,000  
pH = 6; Conductivity = \_\_\_\_\_ umho/cm at 58.3 °C; Chlorine Residual = \_\_\_\_\_ mg/l  
Dissolved Oxygen = \_\_\_\_\_ mg/l; Alkalinity = \_\_\_\_\_ mg/l; Flow Rate \_\_\_\_\_ / \_\_\_\_\_  
Depth to water \_\_\_\_\_ ft.; Depth of well \_\_\_\_\_ ft.; Perforation Interval \_\_\_\_\_ - \_\_\_\_\_ ft.; Casing: \_\_\_\_\_

Sampling Location, Methods and Remarks (i.e. odors, etc.)  
Sample from Cochise Salt Lake (Broke Tank Lake)  
at end of peninsula, N end of lake

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David H. Boyer Method of Shipment to the Lab: State Car

CHAIN OF CUSTODY  
I certify that this sample was transferred from \_\_\_\_\_ to \_\_\_\_\_  
at (location) \_\_\_\_\_ on \_\_\_\_\_ - \_\_\_\_\_; and that  
the statements in this block are correct. Evidentiary Seals: Not Sealed  OR Seals Intact: Yes  No   
Signatures \_\_\_\_\_



## SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud, NE  
 Albuquerque, NM 87106 [505]-841-2500  
 ORGANIC CHEMISTRY SECTION [505]-841-2570

February 1, 1989

**ANALYTICAL REPORT**  
**SLD Accession No. OR-89-0038**

Distribution

Submitter  
 SLD Files

To: NM Oil Conserv. Div.  
 State Land Office Bldg.  
 P. O. Box 2088  
 Santa Fe, NM 87504-2088

From: Organic Chemistry Section  
 Scientific Laboratory Div.  
 700 Camino de Salud, NE  
 Albuquerque, NM 87106

Re: A purgeable water sample submitted to this laboratory on January 19, 1989

User:

OIL CONSERVATION DIV  
 State Land Office Bldg.  
 P. O. Box 2088  
 Santa Fe, NM 87504-2088

## DEMOGRAPHIC DATA

COLLECTION		LOCATION	
On: 12-Jan-89	By: Boy . . .	Township: 08S	Section: 19
At: 11:15 hrs.	In/Near: Roswell	Range: 30E	Tract: 133

## ANALYTICAL RESULTS: Aromatic &amp; Halogenated Purgeable Screen

Parameter	Value	Note	MDL	Units
Aromatic Purgeables (6)	0.00	N	12.50	ppb
Halogenated Purgeables (33)	0.00	N	12.50	ppb

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;  
 T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Seals: Not Sealed  Intact: No , Yes  & Broken By: \_\_\_\_\_ Date: \_\_\_\_\_

Laboratory Remarks: Crosby Salt Lake- North End

Analyst: Gary C. Eden 1/23/89 Analysis Date  
 Gary C. Eden  
 Analyst, Organic Chemistry

Reviewed By: Richard F. Meyerhein 02/01/89  
 Richard F. Meyerhein  
 Supervisor, Organic Chemistry Section



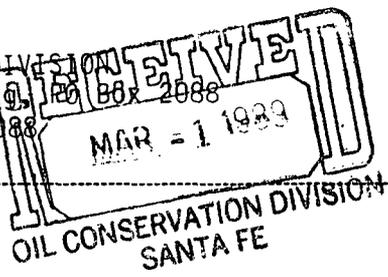
New Mexico Health and Environment Department  
 SCIENTIFIC LABORATORY DIVISION  
 700 Camino de Salud NE  
 Albuquerque, NM 87106 -- (505) 841-2555

**GENERAL WATER CHEMISTRY  
 and NITROGEN ANALYSIS**

859  
 WNM

DATE RECEIVED	1/19/89	LAB NO.	WC-93	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/10/12	SITE INFORMATION	Sample location	Crosby Salt Lake (BROKE Tent)	
Collection TIME	1115		Collection site description	N Side of lake at end of peninsula	
Collected by - Person/Agency		Boyer, Anderson / OCD			

SEND FINAL REPORT TO  
 ENVIRONMENTAL BUREAU  
 NM OIL CONSERVATION DIVISION  
 State Land Office Bldg, Rm 88x 2088  
 Santa Fe, NM 87504-2088  
 Attn: David Boyer  
 Phone: 827-5812



Station/well code: 085-20E-19.133  
 Owner:

**SAMPLING CONDITIONS**

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type	brack
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap				
pH (00400)	6	Conductivity (Uncorrected)	44,000 $\mu$ mho	Water Temp. (00010)	5.8 $^{\circ}$ C
				Conductivity at 25 $^{\circ}$ C (00094)	$\mu$ mho
Field comments					

**SAMPLE FIELD TREATMENT — Check proper boxes**

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 $\mu$ m membrane filter	<input type="checkbox"/> A: 2 ml H <sub>2</sub> SO <sub>4</sub> /L added
<input checked="" type="checkbox"/> NA: No acid added	<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO <sub>3</sub> added	<input type="checkbox"/> A: 4ml fuming HNO <sub>3</sub> added	

**ANALYTICAL RESULTS from SAMPLES**

NA	Units	Date analyzed	From NF, NA Sample:	Date Analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25 $^{\circ}$ C (00095)	$\mu$ mho	1/27	<input checked="" type="checkbox"/> Calcium	62,650 mg/l 1/26/89
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Potassium	1370 mg/l 1/24
<input checked="" type="checkbox"/> Other: Lab pd	5.45	1/23	<input checked="" type="checkbox"/> Magnesium	21,100 mg/l 1/26/89
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium	33,000 mg/l 1/24
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate	359 mg/l 1/23
<b>A-H<sub>2</sub>SO<sub>4</sub></b>			<input checked="" type="checkbox"/> Chloride	261,200 mg/l 2/2
<input type="checkbox"/> Nitrate-N + Nitrate-N total (00630)	mg/l		<input checked="" type="checkbox"/> Sulfate	210 mg/l 2/16
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input checked="" type="checkbox"/> Total Solids	> 10 <sup>5</sup> mg/l 2/9
<input type="checkbox"/> Total Kjeldahl-N ( )	mg/l		<input checked="" type="checkbox"/> B <sub>7</sub>	206 Mg/l 2/07
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input checked="" type="checkbox"/> CO <sub>3</sub>	$\emptyset$ 1/23
<input type="checkbox"/> Total organic carbon ( )	mg/l		<input checked="" type="checkbox"/> Cation/Anion Balance	
<input type="checkbox"/> Other:			Analyst	Date Reported
<input type="checkbox"/> Other:				2/20/89
Laboratory remarks			Reviewed by	
2/1/2010				

CATIONS

ANIONS

ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	3126.25	62650.00	<3.0
Mg	1733.06	21100.00	<0.3
Na	1435.41	33000.00	<10.0
K	350.64	13710.00	<0.3
Mn	0.00	0.00	
Fe	0.00	0.00	

ANALYTE	MEQ.	PPM	DET. LIMIT
HC03	5.88	359.00	<1.0
SO4	4.38	210.00	<10.0
CL	7368.12	#####	<5.0
		>20000	
NO3	0.00	0.00	< 0.
CO3	0.00	0.00	< 1.
NH3	0.00	0.00	< 0.
PO4	0.00	0.00	< 0.

SUMS 6645.35 130460.00

7378.38 #####

Total Dissolved Solids= >100000  
 Ion Balance = 90.07%

WC No. = 890093  
 Date out/By Dem 2/23/89

RECEIVED  
 MAR -1 1989  
 OIL CONSERVATION DIVISION  
 SANTA FE



CROSBY SALT LAKE

# Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033 (303) 423-2766

February 7, 1989  
Page 1 of 2

Mr. David Boyer  
NM Oil Conservation Division  
State Land Office Bldg.  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RECEIVED  
FEB - 9 1989  
OIL CONSERVATION DIVISION  
SANTA FE

RE: 9649-29142-3  
Date Samples Rec'd: 1-20-89  
P.O. No. 77-521.07-123

## REPORT OF ANALYSIS

ALR Designation	9649-29142-3-1	9649-29142-3-2	9649-29142-3-3
Sponsor Designation	8901121115	8901121645	8901131205
	1-12-89	1-12-89	1-13-89
Determination: mg/L			
Aluminum, total	<1.0*	<1.0*	<1.0*
Barium, total	3.0	10	0.6
Boron, total	190	38	8.2
Cadmium, total	<0.05*	<0.05*	<0.05*
Calcium, total	64,000	--	8900
Chromium, total	<0.05*	<0.05*	<0.05*
Iron, total	<0.1*	7.4	210
Lead, total	<0.5*	<0.5*	<0.5*
Magnesium, total	21,000	--	1400
Manganese, total	4.3	3.8	5.2
Mercury, total	0.0072	0.0060	0.0060
Potassium, total	12,000	--	1100
Sodium, total	34,000	--	47,000
Total Alkalinity, (as CaCO <sub>3</sub> to pH 4.5)	280	--	170
Carbonate (as CO <sub>3</sub> )	<5	--	<5
Bicarbonate (as HCO <sub>3</sub> )	340	--	210
pH	5.5	--	7.0
Specific Conductance, µmhos/cm	900,000	--	340,000
Arsenic, total	0.24	0.13	2.4
Selenium, total	<0.25*	<0.25*	--
Total Solids	540,000	--	200,000
Bromide	2000	--	310

CROSBY  
SALT LAKE  
(Pond)

ENRON -  
Bitter Lake

B&E  
Disposal

February 7, 1989  
Page 2 of 2

Mr. David Boyer  
NM Oil Conservation Division

RE: 9649-29142-3  
Date Samples Rec'd: 1-20-89  
P.O. No. 77-521.07-123

REPORT OF ANALYSIS

ALR Designation	9649-29142-3-1	9649-29142-3-2	9649-29142-3-3
Sponsor Designation	8901121115	8901121645	8901131205
	<u>1-12-89</u>	<u>1-12-89</u>	<u>1-13-89</u>
Determination: mg/L			
Chloride	230,000	--	110,000
Sulfate (as SO <sub>4</sub> )	240	--	770
Ion Balance	103	--	85

\* Higher detection limit due to sample matrix interference.

These samples are scheduled to be discarded 30 days after the date of this report.

Mary Fabisiak  
Mary Fabisiak  
Water Laboratory  
Supervisor

MF/dh *dh*



**SCIENTIFIC LABORATORY DIVISION**  
**ORGANIC ANALYSIS REQUEST FORM**  
 Organic Section - Phone: 841-2570

754  
WPW

89-43 C

REPORT TO: DAVID BOYER  
N.M. OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, NM 87504-2088

S.L.D. No. OR-  
 DATE REC. 1-19-89  
 PRIORITY 3  
 PHONE(S): 827-5812

COLLECTION CITY: Roswell - NE. of City; COUNTY: Chaves

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 8901121105 (Tank

LOCATION CODE: (Township-Range-Section-Tracts) 08S+29E+24+2 (10N06E24342) battery

USER CODE: 82235 SUBMITTER: David Boyer CODE: 2610 (Local 2)

SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: \_\_\_\_\_

This form accompanies 2 Septum Vials, \_\_\_\_\_ Glass Jugs, and/or \_\_\_\_\_  
 Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice: Sample stored in an ice bath (Not Frozen).
- P-AA: Sample Preserved with Ascorbic Acid to remove chlorine residual.
- P-HCl: Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

**ANALYSES REQUESTED:** Please check the appropriate box(es) below to indicate the type of physical screens required. Whenever possible list specific compounds suspected or required.

- PURGEABLE SCREENS**
- (753) Aliphatic Headspace (1-5 Carbons)
  - (754) Aromatic & Halogenated Purgeables
  - (765) Mass Spectrometer Purgeables
  - (766) Trihalomethanes
  - (774) SDWA VOC's I (8 Regulated +)
  - (775) SDWA VOC's II (EDB & DBCP)
  - Other Specific Compounds or Classes \_\_\_\_\_

- EXTRACTABLE SCREENS**
- (751) Aliphatic Hydrocarbons
  - (755) Base/Neutral Extractables
  - (758) Herbicides, Chlorophenoxy acid
  - (759) Herbicides, Triazines
  - (760) Organochlorine Pesticides
  - (761) Organophosphate Pesticides
  - (767) Polychlorinated Biphenyls (PCB's)
  - (764) Polynuclear Aromatic Hydrocarbons
  - (762) SDWA Pesticides & Herbicides

Remarks: \_\_\_\_\_

**RECEIVED**

APR 27 1989

OIL CONSERVATION DIV.  
SANTA FE

**FIELD DATA:**

pH = 7; Conductivity = >50,000 umho/cm at \_\_\_\_\_ °C; Chlorine Residual = \_\_\_\_\_ mg/l

Dissolved Oxygen = \_\_\_\_\_ mg/l; Alkalinity = \_\_\_\_\_ mg/l; Flow Rate \_\_\_\_\_ / \_\_\_\_\_

Depth to water \_\_\_\_\_ ft.; Depth of well \_\_\_\_\_ ft.; Perforation Interval \_\_\_\_\_ - \_\_\_\_\_ ft.; Casing: \_\_\_\_\_

Sampling Location, Methods and Remarks (i.e. odors, etc.) at Lake North  
Sample from discharge pipe from south tank  
battery, Crasby Salt Lake (Brook Tank Lake)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David Boyer Method of Shipment to the Lab: State Car

**CHAIN OF CUSTODY**

I certify that this sample was transferred from \_\_\_\_\_ to \_\_\_\_\_  
 at (location) \_\_\_\_\_ on \_\_\_\_\_ - \_\_\_\_\_ and that  
 the statements in this block are correct. Evidentiary Seals: Not Sealed  OR Seals Intact: Yes  No   
 Signatures \_\_\_\_\_

For OCD use: Date owner notified: 6/19/89 Phone or (Letter)? Initials DBB



## SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud, NE  
 Albuquerque, NM 87106 [505]-841-2500  
 ORGANIC CHEMISTRY SECTION [505]-841-2570

February 1, 1989

**ANALYTICAL REPORT**  
**SLD Accession No. OR-89-0043**

Distribution

(■) Submitter  
 (⊗) SLD Files

To: NM Oil Conserv. Div.  
 State Land Office Bldg.  
 P. O. Box 2088  
 Santa Fe, NM 87504-2088

From: Organic Chemistry Section  
 Scientific Laboratory Div.  
 700 Camino de Salud, NE  
 Albuquerque, NM 87106

Re: A purgeable water sample submitted to this laboratory on January 19, 1989

User:

OIL CONSERVATION DIV  
 State Land Office Bldg.  
 P. O. Box 2088  
 Santa Fe, NM 87504-2088

## DEMOGRAPHIC DATA

COLLECTION		LOCATION	
On: 12-Jan-89	By: Boy . . .	Township: 08S	Section: 24
At: 11:05 hrs.	In/Near: Roswell	Range: 29E	Tract: 2

## ANALYTICAL RESULTS: Aromatic &amp; Halogenated Purgeable Screen

Parameter	Value	Note	MDL	Units
Halogenated Purgeables (33)	0.00	N	100.00	ppb
Benzene	2450.00		100.00	ppb
Toluene	1700.00		100.00	ppb
Ethylbenzene	220.00		100.00	ppb
p- & m-Xylene	300.00		100.00	ppb
1,2-Dimethylbenzene	0.00	T	100.00	ppb

Notations & Comments:

MDL = Minimal Detectable Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;  
 T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Seals: Not Sealed ; Intact: No , Yes  & Broken By: \_\_\_\_\_ Date: \_\_\_\_\_

Laboratory Remarks: Crosby Salt Lake

Analyst: Gary C. Eden  
 Gary C. Eden  
 Analyst, Organic Chemistry

1/21/89  
 Analysis  
 Date

Reviewed By: Richard F. Meyerhein  
 Richard F. Meyerhein 02/01/89  
 Supervisor, Organic Chemistry Section

859  
WNR

RECEIVED  
MAR - 1 1989



New Mexico Health and Environment Department  
SCIENTIFIC LABORATORY DIVISION  
700 Camino de Salud NE  
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY  
and NITROGEN ANALYSIS

DATE RECEIVED	1/19/89	LAB NO.	WC-96	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/10/12	SITE INFORMATION	Sample location	Crosby Salt Lake (Broke Tank)	
Collection TIME	1105			Collection site description	
Collected by — Person/Agency		Boyer, Anderson / OCD			
		Tank battery at N. side of Lake discharge hole at Lake side			

SEND FINAL REPORT TO

ENVIRONMENTAL BUREAU  
NM OIL CONSERVATION DIVISION  
State Land Office Bldg, PO Box 2083  
Santa Fe, NM 87504-2088

RECEIVED  
MAR - 1 1989

Attn: David Boyer

Phone: 827-5312

OIL CONSERVATION DIVISION  
- SANTA FE

Station/well code: 085-25E-24.2  
Owner: (Battery location)

SAMPLING CONDITIONS

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap			Grab
pH (00400)	7	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)
		> 50,000 µmho	°C	µmho

Field comments

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input type="checkbox"/> A: 2 ml H <sub>2</sub> SO <sub>4</sub> /L added
<input checked="" type="checkbox"/> NA: No acid added		<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO <sub>3</sub> added	<input type="checkbox"/> A: 4ml fuming HNO <sub>3</sub> added

ANALYTICAL RESULTS from SAMPLES

NA	Units	Date analyzed	From NF, NA Sample:	Date Analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho	1/27	<input checked="" type="checkbox"/> Calcium	17,200 mg/l 1/26/89
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Potassium	2800 mg/l 1/24
Other: Lab pH	6.39	1/23	<input type="checkbox"/> Magnesium	5870 mg/l 1/26/89
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium	55350 mg/l 1/24
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate	650 mg/l 1/23
<b>A-H<sub>2</sub>SO<sub>4</sub></b>			<input checked="" type="checkbox"/> Chloride	119000 mg/l 2/2
<input type="checkbox"/> Nitrate-N <sup>+</sup> , Nitrate-N total (00630)	mg/l		<input checked="" type="checkbox"/> Sulfate	1512 mg/l 2/2
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input checked="" type="checkbox"/> Total Solids	> 10 <sup>5</sup> mg/l 2/9
<input type="checkbox"/> Total Kjeldahl-N ( )	mg/l		<input checked="" type="checkbox"/> CO <sub>3</sub>	φ 1/23
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input checked="" type="checkbox"/> B <sub>9</sub>	126 mg/l 2/07
<input type="checkbox"/> Total organic carbon ( )	mg/l		<input checked="" type="checkbox"/> Cation/Anion Balance	
<input type="checkbox"/> Other:			Analyst	Date Reported
<input type="checkbox"/> Other:				2/15/89
Laboratory remarks			Reviewed by	
136400				

CATIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	858.28	17200.00	<3.0
Mg	482.14	5870.00	<0.3
Na	2407.57	55350.00	<10.0
K	73.15	2860.00	<0.3
Mn	0.00	0.00	
Fe	0.00	0.00	
SUMS	3821.13	81280.00	
Total Dissolved Solids= 100000			
Ion Balance = 98.23%			

ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT
HC03	10.65	650.00	<1.0
SO4	31.50	1512.00	<10.0
CL	3847.67	#####	<5.0
NO3	0.00	0.00	< 0.
CO3	0.00	0.00	< 1.
NH3	0.00	0.00	< 0.
PO4	0.00	0.00	< 0.
SUMS	3889.83	#####	

WC No. = 8800096  
Date out/By *Over 2/15/87*

**RECEIVED**  
MAR - 1 1989  
OIL CONSERVATION DIVISION  
SANTA FE



New Mexico Health and Environment Department  
 SCIENTIFIC LABORATORY DIVISION  
 700 Camino de Salud NE  
 Albuquerque, NM 87106

# HEAVY METAL ANALYSIS FORM

Telephone: (505)841-2553

Date Received 1/19/89 Lab No. ICP-16 User Code  82235  Other:

COLLECTION DATE & TIME: yy mm dd hh mm 89 01 12 11 05 COLLECTION SITE DESCRIPTION Tank battery discharge at Crosby Salt Lake

COLLECTED BY: Boyer / Pulmon OWNER: \_\_\_\_\_

TO: \_\_\_\_\_

ENVIRONMENTAL BUREAU  
 NM OIL CONSERVATION DIVISION  
 State Land Office Bldg., PO Box 2088  
 SANTA FE, NM 87504-2088

SITE LOCATION: County: Chaves

ATTN: D. Boyer  
 TELEPHONE: 827-5812

Township, Range, Section, Tract: (10N06E24342) (Tank location) R15+19E+24+21-17  
 STATION/ WELL CODE: \_\_\_\_\_

LATITUDE, LONGITUDE: \_\_\_\_\_

SAMPLING CONDITIONS:  
 Bailed  Pump  Water Level: \_\_\_\_\_ Discharge: \_\_\_\_\_ Sample Type: Gravel  
 Dipped  Tap  
 pH(00400) 7 Conductivity(Uncorr.) > 50,000  $\mu\text{mho}$  Water Temp.(00010) \_\_\_\_\_  $^{\circ}\text{C}$  Conductivity at 25 $^{\circ}\text{C}$  (00094) \_\_\_\_\_  $\mu\text{mho}$

FIELD COMMENTS: Sample from base at Lakeside

SAMPLE FIELD TREATMENT Check proper boxes:  
 WPN: Water Preserved w/HNO<sub>3</sub> Non-Filtered  WPF: Water Preserved w/HNO<sub>3</sub> Filtered  
 LAB ANALYSIS REQUESTED:  
 ICAP Scan Mark box next to metal if AA is required.

## ANALYTICAL RESULTS (MG/L)

ELEMENT	ICAP VALUE	AA VALUE	ELEMENT	ICAP VALUE	AA VALUE
Aluminum	<1.0		Silicon	2.7	
Barium	<1.0		Silver	<0.1	<input type="checkbox"/>
Beryllium	<1.0		Strontium	340.	
Boron	51.		Tin	4.5	
Cadmium	<1.0	<input type="checkbox"/>	Vanadium	<0.1	
Calcium	13900.		Zinc	<0.1	
Chromium	<1.0	<input type="checkbox"/>	Arsenic		<input checked="" type="checkbox"/> <0.5
Cobalt	<0.5		Selenium		<input checked="" type="checkbox"/> <0.5
Copper	<1.0		Mercury		<input checked="" type="checkbox"/> <0.005
Iron	9.7				<input type="checkbox"/>
Lead	<1.0	<input type="checkbox"/>			<input type="checkbox"/>
Magnesium	5210.				<input type="checkbox"/>
Manganese	1.8				<input type="checkbox"/>
Molybdenum	<1.0				<input type="checkbox"/>
Nickel	<1.0				<input type="checkbox"/>

LAB COMMENTS: \_\_\_\_\_ DIGEST

For OCD Use:  
 Date Owner Notified: \_\_\_\_\_ ICAP Analyst JAA Reviewer Alan L. Meyer  
 Phone or Letter? \_\_\_\_\_ Date Analyzed 2/27/89 Date Received 3/12/89  
 Initials: \_\_\_\_\_



857  
WNN

DATE RECEIVED	8.15.88	LAB NO.	W-3342	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/15/88	SITE INFORMATION	Sample location	Emergency Pit at Crosby Soil Lab	
Collection TIME	1625		Collection site description	Sample from S. side center of bank	
Collected by — Person/Agency		Boyer 10CD			

ENVIRONMENTAL BUREAU  
 NM OIL CONSERVATION DIVISION  
 State Land Office Bldg, PO Box 2088  
 Santa Fe, NM 87504-2088

SEND FINAL REPORT TO

Attn: David Boyer

Phone: 827-5812

Station/well code 08555 E-19.340  
 Owner

**SAMPLING CONDITIONS**

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input checked="" type="checkbox"/> Dipped	<input type="checkbox"/> Tap			Ground
pH (00400)	7	Conductivity (Uncorrected)	151000 $\mu$ mho	Water Temp. (00010)
				32 °C
Conductivity at 25 °C (00094) $\mu$ mho				
Field comments				

**SAMPLE FIELD TREATMENT — Check proper boxes**

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 $\mu$ m membrane filter	<input type="checkbox"/> A: 2 ml H <sub>2</sub> SO <sub>4</sub> /L added
<input checked="" type="checkbox"/> NA: No acid added		<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO <sub>3</sub> added	<input type="checkbox"/> A: 4ml fuming HNO <sub>3</sub> added

**ANALYTICAL RESULTS from SAMPLES**

NA	Units	Date analyzed	From <u>NA</u> , NA Sample:	Date Analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25 °C (00095)	$\mu$ mho	8/29	<input checked="" type="checkbox"/> Calcium	454 mg/l 9/8
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Potassium	61 mg/l 9/7
<input checked="" type="checkbox"/> Other: Lab pH		9/13	<input checked="" type="checkbox"/> Magnesium	110 mg/l 9/8
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium	3125 mg/l 9/7
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate	90.5 mg/l 9/13
<b>A-H<sub>2</sub>SO<sub>4</sub></b>			<input checked="" type="checkbox"/> Chloride	6025 mg/l 8/24
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input checked="" type="checkbox"/> Sulfate	435 mg/l 8/24
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input checked="" type="checkbox"/> Total Solids	10716 mg/l 9/8
<input type="checkbox"/> Total Kjeldahl-N ( )	mg/l		<input checked="" type="checkbox"/> CO <sub>2</sub>	
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input checked="" type="checkbox"/> Bromide 20:5 mg/l	8/25
<input type="checkbox"/> Total organic carbon ( )	mg/l		<input type="checkbox"/> Cation/Anion Balance	
<input type="checkbox"/> Other:			Analyst	Date Reported
<input type="checkbox"/> Other:				9/27/88
Laboratory remarks			Reviewed by	(Signature)

CATIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT
Ca	22.65	454.00	<3.0
Mg	9.03	110.00	<0.3
Na	135.93	3125.00	<10.0
K	1.56	61.00	<0.3
Mn	0.00	0.00	
Fe	0.00	0.00	
SUMS	169.18	3750.00	
Total Dissolved Solids=			10716
Ion Balance =			93.73%

ANIONS			
ANALYTE	MEQ.	PPM	DET. LIMIT
HCO3	1.48	90.50	<1.0
SO4	9.06	435.00	<10.0
CL	169.96	6025.00	<5.0
NO3	0.00	0.00	< 0.
CO3	0.00	0.00	< 1.
NH3	0.00	0.00	< 0.
PO4	0.00	0.00	< 0.
SUMS	180.50	6550.50	

WC No. = 8803342  
 Date out/By CD 10/1/89

RECEIVED  
 OCT 18 1989  
 CHL CONSERVATION DIVISION  
 SANTA FE





SCIENTIFIC LABORATORY DIVISION  
ORGANIC ANALYSIS REQUEST FORM  
Organic Section - Phone: 841-2570

754  
wpu

88-1333-C

REPORT TO: DAVID BOYER  
N.M. OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, NM 87504-2088

S.L.D. No. OR- 1333 A/B  
DATE REC. 8-15-89  
PRIORITY P  
PHONE(S): 827-5812

COLLECTION CITY: Roswell; COUNTY: Chavez

COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 8810811116215

LOCATION CODE: (Township-Range-Section-Tracts) 10815+29E+19+3410 (10N06E24342)

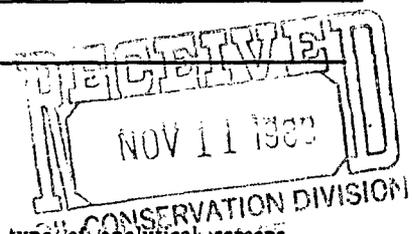
USER CODE: 812235 SUBMITTER: David Boyer CODE: 21610

SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: \_\_\_\_\_

This form accompanies 2 Septum Vials, \_\_\_\_\_ Glass Jugs, and/or \_\_\_\_\_

Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice: Sample stored in an ice bath (Not Frozen).
- P-AA: Sample Preserved with Ascorbic Acid to remove chlorine residual.
- P-HCl: Sample Preserved with Hydrochloric Acid (2 drops/40 ml)



**ANALYSES REQUESTED:** Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

- PURGEABLE SCREENS**
- (753) Aliphatic Headspace (1-5 Carbons)
  - (754) Aromatic & Halogenated Purgeables
  - (765) Mass Spectrometer Purgeables
  - (766) Trihalomethanes
  - (774) SDWA VOC's I (8 Regulated +)
  - (775) SDWA VOC's II (EDB & DBCP)
  - Other Specific Compounds or Classes

- EXTRACTABLE SCREENS**
- (751) Aliphatic Hydrocarbons
  - (755) Base/Neutral Extractables
  - (758) Herbicides, Chlorophenoxy acid
  - (759) Herbicides, Triazines
  - (760) Organochlorine Pesticides
  - (761) Organophosphate Pesticides
  - (767) Polychlorinated Biphenyls (PCB's)
  - (764) Polynuclear Aromatic Hydrocarbons
  - (762) SDWA Pesticides & Herbicides

Remarks: (NOTE - White Label Facility - A/B)

**FIELD DATA:**  
pH= 7; Conductivity= 15,000 umho/cm at 32 °C; Chlorine Residual= \_\_\_\_\_ mg/l  
Dissolved Oxygen= \_\_\_\_\_ mg/l; Alkalinity= \_\_\_\_\_ mg/l; Flow Rate= \_\_\_\_\_  
Depth to water \_\_\_\_\_ ft.; Depth of well \_\_\_\_\_ ft.; Perforation Interval \_\_\_\_\_ - \_\_\_\_\_ ft.; Casing: \_\_\_\_\_

Sampling Location, Methods and Remarks (i.e. odors, etc.)  
Crosby Salt Lake Emerg. Pit. Oil Sheen & Bubbles  
Sample from S. Side, Center of bank

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): David Boyer Method of Shipment to the Lab: Rate Car

**CHAIN OF CUSTODY**

I certify that this sample was transferred from \_\_\_\_\_ to \_\_\_\_\_  
at (location) \_\_\_\_\_ on \_\_\_\_\_ - \_\_\_\_\_ and that  
the statements in this block are correct. Evidentiary Seals: Not Sealed  OR Seals Intact: Yes  No

Signatures: \_\_\_\_\_

For OCD use: Date owner notified: 6/19/89 Phone or Letter? Initials: AB

This sample was tested using the analytical screening method(s) checked below:

**PURGEABLE SCREENS**

- (753) Aliphatic Headspace (1-5 Carbons)
- (754) Aromatic & Halogenated Purgeables
- (765) Mass Spectrometer Purgeables
- (766) Trihalomethanes
- (774) SDWA VOC's I (8 Regulated +)
- (775) SDWA VOC's II (EDB & DBCP)
- Other Specific Compounds or Classes

**EXTRACTABLE SCREENS**

- (751) Aliphatic Hydrocarbons
- (755) Base/Neutral Extractables
- (758) Herbicides, Chlorophenoxy acid
- (759) Herbicides, Triazines
- (760) Organochlorine Pesticides
- (761) Organophosphate Pesticides
- (767) Polychlorinated Biphenyls (PCB's)
- (764) Polynuclear Aromatic Hydrocarbons
- (762) SDWA Pesticides & Herbicides

**ANALYTICAL RESULTS**

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
<i>aromatic purgeables</i>	<i>see remarks</i>		
<i>benzene</i>	<i>T.R.</i>		
<i>toluene</i>	<i>T.R.</i>		
<i>ethylbenzene</i>	<i>T.R.</i>		
<i>p + m-xylene</i>	<i>T.R.</i>		
<i>o-xylene</i>	<i>T.R.</i>		
<i>halogenated purgeables</i>	<i>N.D.</i>		
	<i>25</i>		
	<i>50-49/L</i>		
* DETECTION LIMIT *	*	+ DETECTION LIMIT +	†

ABBREVIATIONS USED:

- N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
- T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
- [ RESULTS IN BRACKETS ] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: *Twenty five compounds ranging from light unsaturated compounds in the BTX region to the C3 substituted benzene region at approx 100-500 ppb detected by the photoionization detector but not identified.*

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Not Sealed  Intact: Yes  No  Seal(s) broken by: *not sealed* date: \_\_\_\_\_  
 I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.  
 Date(s) of analysis: *8/19/08* Analyst's signature: *Mary C. Eden*  
 I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.  
 Reviewers signature: *R Meyerheim*





**SCIENTIFIC LABORATORY DIVISION**  
**ORGANIC ANALYSIS REQUEST FORM**  
 Organic Section - Phone: 841-2570

754  
WPM  
88-1337-C

REPORT TO: DAVID BOYER  
N.M. OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, NM 87504-2088

S.L.D. No. OR- 1337 A+B  
 DATE REC. 8-15-88  
 PRIORITY 3  
 PHONE(S): 827-5812

COLLECTION CITY: \_\_\_\_\_; COUNTY: \_\_\_\_\_  
 COLLECTION DATE/TIME CODE: (Year-Month-Day-Hour-Minute) 88 08 11 16 10  
 LOCATION CODE: (Township-Range-Section-Tracts) 08 S + 29 E + 19 + 34 10 (10N06E24342)  
 USER CODE: 8 2 2 3 5 SUBMITTER: David Boyer CODE: 2 1 6 1 0  
 SAMPLE TYPE: WATER , SOIL , FOOD , OTHER: \_\_\_\_\_

This form accompanies 2 Septum Vials, \_\_\_\_\_ Glass Jugs, and/or \_\_\_\_\_  
 Samples were preserved as follows:

- NP: No Preservation; Sample stored at room temperature.
- P-Ice: Sample stored in an ice bath (Not Frozen).
- P-AA: Sample Preserved with Ascorbic Acid to remove chlorine residual.
- P-HCl: Sample Preserved with Hydrochloric Acid (2 drops/40 ml)

**RECEIVED**  
 NOV 11 1988  
 OIL CONSERVATION DIVISION  
 SANTA FE

**ANALYSES REQUESTED:** Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

- PURGEABLE SCREENS**
- (753) Aliphatic Headspace (1-5 Carbons)
  - (754) Aromatic & Halogenated Purgeables
  - (765) Mass Spectrometer Purgeables
  - (766) Trihalomethanes
  - (774) SDWA VOC's I (8 Regulated +)
  - (775) SDWA VOC's II (EDB & DBCP)
  - Other Specific Compounds or Classes \_\_\_\_\_

- EXTRACTABLE SCREENS**
- (751) Aliphatic Hydrocarbons
  - (755) Base/Neutral Extractables
  - (758) Herbicides, Chlorophenoxy acid
  - (759) Herbicides, Triazines
  - (760) Organochlorine Pesticides
  - (761) Organophosphate Pesticides
  - (767) Polychlorinated Biphenyls (PCB's)
  - (764) Polynuclear Aromatic Hydrocarbons
  - (762) SDWA Pesticides & Herbicides

Remarks: (Notes: Little Lakes Facility - AWR)

**FIELD DATA:** > 50,000  
 pH= 7; Conductivity= \_\_\_\_\_ umho/cm at \_\_\_\_\_ °C; Chlorine Residual= \_\_\_\_\_ mg/l  
 Dissolved Oxygen= \_\_\_\_\_ mg/l; Alkalinity= \_\_\_\_\_ mg/l; Flow Rate \_\_\_\_\_  
 Depth to water \_\_\_\_\_ ft.; Depth of well \_\_\_\_\_ ft.; Perforation Interval \_\_\_\_\_ - \_\_\_\_\_ ft.; Casing: \_\_\_\_\_  
 Sampling Location, Methods and Remarks (i.e. odors, etc.)

Crosser Salt Lake, Sample from NW Tank at collection site for produced water

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): [Signature] Method of Shipment to the Lab: State car

**CHAIN OF CUSTODY**  
 I certify that this sample was transferred from \_\_\_\_\_ to \_\_\_\_\_  
 at (location) \_\_\_\_\_ on \_\_\_\_\_ - \_\_\_\_\_ and that  
 the statements in this block are correct. Evidentiary Seals: Not Sealed  OR Seals Intact: Yes  No   
 Signatures: \_\_\_\_\_

For OCD use: Date owner notified: 6/19/89 Phone or Letter? Initials: [Signature]



854  
 WJMN

DATE RECEIVED	8/15/88	LAB NO.	WC-3346	USER CODE	<input type="checkbox"/> 59300 <input type="checkbox"/> 59600 <input checked="" type="checkbox"/> OTHER: 82235
Collection DATE	8/15/88	SITE INFORMATION	Sample location	Grosby Salt Lake - Collection site	
Collection TIME	16:10		Collection site description	Sample from NW hole in tank for produced water	
Collected by - Person/Agency	Boyer IOCD				

ENVIRONMENTAL BUREAU  
 NM OIL CONSERVATION DIVISION  
 State Land Office Bldg, PO Box 2088  
 Santa Fe, NM 87504-2088  
 Attn: David Boyer  
 Phone: 827-5812

Station/well code

Owner 085-255 19.340

**SAMPLING CONDITIONS**

<input type="checkbox"/> Bailed	<input type="checkbox"/> Pump	Water level	Discharge	Sample type
<input type="checkbox"/> Dipped	<input checked="" type="checkbox"/> Tap			Local
pH (00400)	7	Conductivity (Uncorrected)	Water Temp. (00010)	Conductivity at 25°C (00094)
		> 50,000 µmho	°C	µmho
Field comments				

**SAMPLE FIELD TREATMENT - Check proper boxes**

No. of samples submitted	1	<input checked="" type="checkbox"/> NF: Whole sample (Non-filtered)	<input type="checkbox"/> F: Filtered in field with 0.45 µm membrane filter	<input type="checkbox"/> A: 2 ml H <sub>2</sub> SO <sub>4</sub> /L added
<input checked="" type="checkbox"/> NA: No acid added		<input type="checkbox"/> Other-specify:	<input type="checkbox"/> A: 5ml conc. HNO <sub>3</sub> added	<input type="checkbox"/> A: 4ml fuming HNO <sub>3</sub> added

**ANALYTICAL RESULTS from SAMPLES**

NA	Units	Date analyzed	From <u>NA</u> , NA Sample:	Date Analyzed
<input checked="" type="checkbox"/> Conductivity (Corrected) 25°C (00095)	µmho	8/30	<input checked="" type="checkbox"/> Calcium	15240 mg/l 9/8
<input type="checkbox"/> Total non-filterable residue (suspended) (00530)	mg/l		<input checked="" type="checkbox"/> Potassium	2090 mg/l 9/7
<input checked="" type="checkbox"/> Other: Lab pH	7.08	9/14	<input checked="" type="checkbox"/> Magnesium	25957 mg/l 9/8
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Sodium	62900 mg/l 9/23
<input type="checkbox"/> Other:			<input checked="" type="checkbox"/> Bicarbonate	498 mg/l 9/14
<b>A-H<sub>2</sub>SO<sub>4</sub></b>			<input checked="" type="checkbox"/> Chloride	150,500 mg/l 10/17
<input type="checkbox"/> Nitrate-N +, Nitrate-N total (00630)	mg/l		<input checked="" type="checkbox"/> Sulfate	885 mg/l 8/24
<input type="checkbox"/> Ammonia-N total (00610)	mg/l		<input checked="" type="checkbox"/> Total Solids	278840 mg/l 9/9
<input type="checkbox"/> Total Kjeldahl-N ( )	mg/l		<input checked="" type="checkbox"/> CO <sub>2</sub>	0 9/14
<input type="checkbox"/> Chemical oxygen demand (00340)	mg/l		<input checked="" type="checkbox"/> Residual 20.0 mg/l	8/25
<input type="checkbox"/> Total organic carbon ( )	mg/l		<input type="checkbox"/> Cation/Anion Balance	
<input type="checkbox"/> Other:			Analyst	Date Reported
<input type="checkbox"/> Other:				10/15/88

Laboratory remarks: 148400

139% balanced by tank numbers for this





Crosby SATT Lake (BROKE TANK)

11/68



Crosby Salt Lake (Broke Tank)

11/68



Crosby Salt Lake - Brooke Tank



Crosby Salt Lake (Broke Tank)

11/88



Crosby Salt Lake (Back Tank),  
11/68



Crosby Salt Lake (Broke Tank)

11/88



Crosby Salt Lake (Broke Tank)

11/68



12/2/88

Crosby Salt Lake



Crosby Salt Lake (Broke Tank)

11/68



Crosby Salt Lake (Broke Tank)  
11/68



Crosby Salt Lake (Broke Tank)

11/68



Crosby Salt Lake (Broke Tank)

11/59



12/2/88

Crosby Salt Lake



12/2/88

Crosby salt Lake



12/2/88

Crosby Salt Lake



12/2/88

Crosby Salt Lake



12 1/2 " Masby Salt in



Crosby Salt Lake  
w. Facility 8/11/88  
B.S. - 29E - 19.340



Emergency Pond - Crosby Salt Lake  
W. Facility 8/11/08

85-27E-19,340



Emergency pond - Crosby Salt Lake

West facility 8/11/88

85-29E-19,340



Crosby Salt Lake - West Facility

8/11/88

85-29E-19.340



BROKEN PIPE & SPILL AREA  
W. FACILITY - CROSBY SALT LAKE  
8/11/88

85-27E-19,340



Crosby Salt Lake West Facility

8/11/88

85-29E-19.34 (1)



Crosby Salt Lake-West Facility

8/11/88

85-59 E-19, 34 L



Crosby Salt Lake - W facility

8/11/88

85-29E-19,340



Crosby Salt Lake - W. Facility

8/11/88

85-29 E-19,340



Crosby Salt Lake - West Facility

8/11/88

8S-29E-19.340



Crosby Salt Lake - West Facility

8/11/88

85-29E-19,340



Pipeleak -  
Crosby Salt Lake - West Facility  
8/11/88

85-29E-19340



Crosby Salt Lake - West Facility

8/11/88

85-29 E-19, 340



Crosby Salt Lake - West Secality  
8/11/88

8 S-29 E - 19, 346



Emergency Pond  
Crosby Salt Lake - West facility  
8/11/88

85-29E-19.340