BW - 13

GENERAL CORRESPONDENCE

YEAR(S):

2005 → 1991

PATRICK H. LYONS
COMMISSIONER

State of New Mexico
Commissioner of Public Lands
310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

November 4, 2009

Mr. John Stearns
Stearns, Inc.
HCR 65 Box 988
Crossroads, NM 88114

Re: New Mexico Salt Lease M-15635-1

Dear Mr. Stearns:

State of New Mexico Salt Lease No. M-15635-1, date of issue April 4, 1972, located in the SE4SE4, of Section 27, Township 9 South, Range 35 East in Lea County, has expired by its own terms, and has been terminated effective October 16, 2008, due to lack of production.

State Land Office records reflect the action taken, and failure to appeal this decision in the manner prescribed by law will result in the action becoming final (reference §19-7-64 to 19-7-67 NMSA 1978).

If you have any questions, please call Michael Mariano, Minerals Manager, at 505-827-5750.

Sincerely,

JAMI BAILEY, Director
Oil, Gas, & Minerals Division

JB/MM/mec
cc: Jim Carr, DRM
Jim Norwick, Director, Field Division, SLO
✓Glenn Von Gonten, OCD
1220 S. St Francis Drive
Santa Fe, NM 87505

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
June 19, 2008

WELL API NO.	**30-025-35702**
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	**M-15635**

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

7. Lease Name or Unit Agreement Name	**KTS Brine**
1. Type of Well: Oil Well ☐ Gas Well ☐ Other **Brine Well**	8. Well Number **#001**
2. Name of Operator **John R.Stearns DBA Stearns**	9. OGRID Number **21566**
3. Address of Operator **PO Box 988 Crossroads, NM 88114**	10. Pool name or Wildcat **Salado**

4. Well Location
Unit Letter **P** : **200** feet from the **South** line and **200** feet from the **East** line
Section **27** Township **9S** Range **35E** NMPM **Lea** County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☒	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

NMOCD records indicate well drilled in 1966. NMOCD records indicate 7"casing set at 2000 feet cemented to surface
Total Depth 2800 feet. Open hole through the salt from 2000 feet to 2800 feet
Inspection of well head and downhole test indicate well cased with 5 ½" casing. No record of surface casing
Stearns proposes to plug and abandon well as follows
Pull brine production equipment
Run SOCON Sonar log from 2000ft to 2800ft for brine cavity evaluation
Run tubing open ended to 2000ft x Spot 40 sacks Class "C" cement with 2% CaCl x Pull tubing x WOC
Run tubing and tag cement plug x Spot 50 sack cement plug x Pull tubing x WOC
Run tubing and tag cement plug x Spot 50 sack cement plug x Pull tubing x WOC
Run tubing and tag cement plug x Spot 50 sack cement plug x Pull tubing x WOC
Repeat above steps until cement to surface
Cut off well head and install NMOCD regulation PA marker
Enclosed before and after well diagrams

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

SIGNATURE Billy E. Prichard TITLE **Agent for Stearns** DATE 12/29/08

Type or print name **Billy E. Prichard** E-mail address: billy@pwllc.net PHONE: **432-934-7680**

For State Use Only

APPROVED BY: TITLE FBC DATE 1/08/09

Conditions of Approval (if any):

ATTACHED CONDITIONS

1/08/09

C-103 Kenneth Tank Service Brine Facility No. 1 (BW-13)
API# 30-025-35702
Conditions of Approval

1) A sonar test of the salt cavern is required in advance of plugging and abandoning the brine well. If a Sonar test cannot be run, the OCD requires a closure plan for the facility including ground water (if applicable), seismic and subsidence monitoring for 30 years; time-frame for equipment decommissioning/site restoration; and financial assurance to ensure that the above is completed.

2) An EPA 5-Yr. MIT (30 min. @ 300 – 500 psig) w/ CIBP or cement plug at or near casing shoe is required in advance of plugging and abandoning the brine well.

3) The cavern shall be filled with brine water (not fresh water) in advance of plugging operations.

3) Cement must be pressure grouted from above CIBP or cement plug to surface.

4) At least 210 sks of Class "C" Cement from CIBP or cement plug Setting Depth of 2000' to surface is required.

5) Final C-103 Form shall be submitted within 30 days of plug and abandonment with final construction details.

Pueblo West
Oilfield Consulting Service

RECEIVED
2009 JAN 2 PM 2 26

December 29, 2008

New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: C103 and well diagrams

Mr. Carl J. Chavez

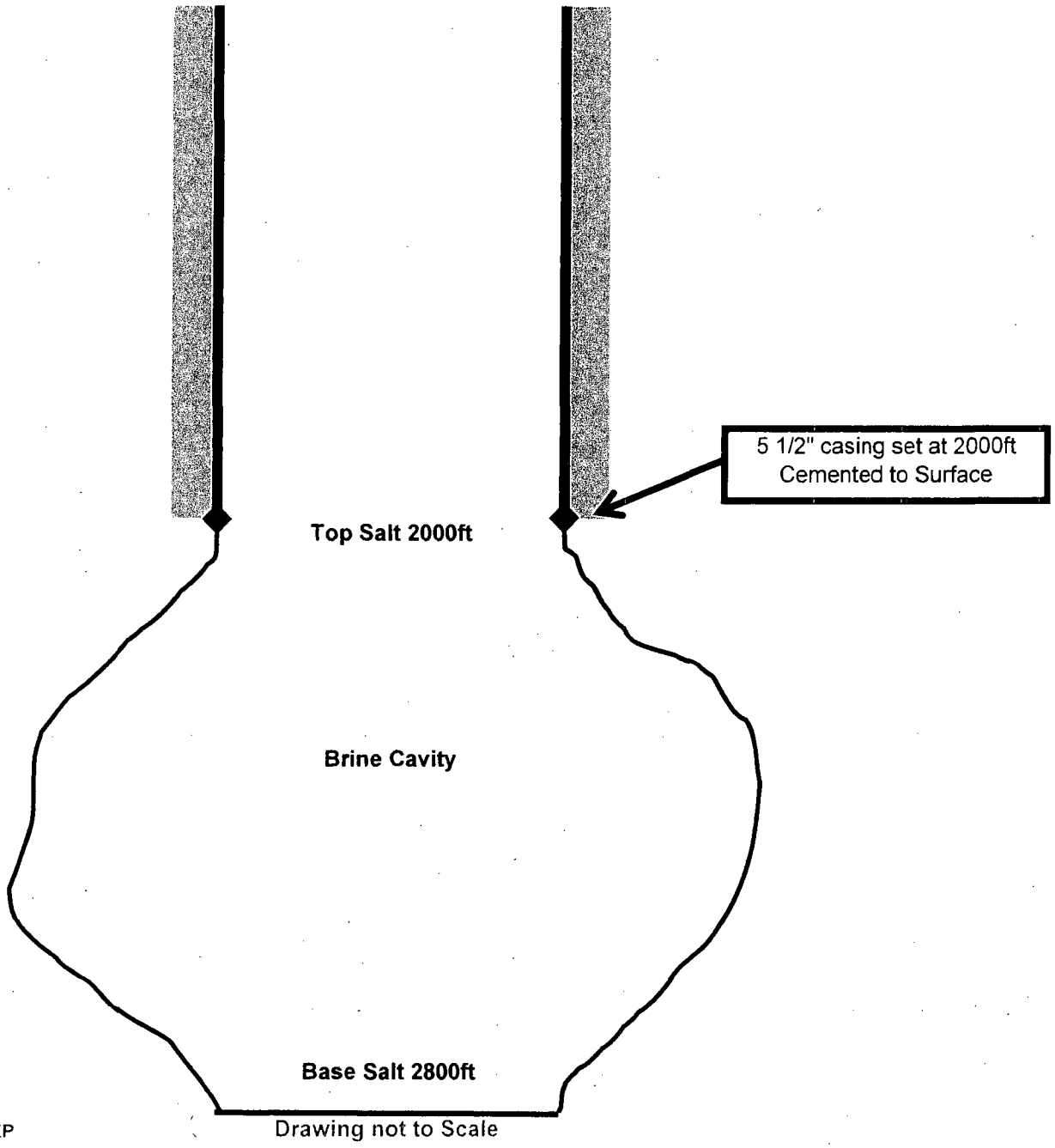
Please find enclosed the original plus 3 copies of C103 Notice of Intent to plug and abandon the Stearns (Ogrid# 21566) KTS Brine # 1(API# 30-025-35702) brine well. Also enclosed is the original and 3 copies of before and proposed after PA well diagrams.

Sincerely,

Billy E. Prichard

Billy(Bill)E. Prichard
www.pwllc.net
125 Greathouse Village
Decatur, TX 76234
432-934-7680 cellular
940-627-5449 office phone/fax
Email; billy@pwllc.net

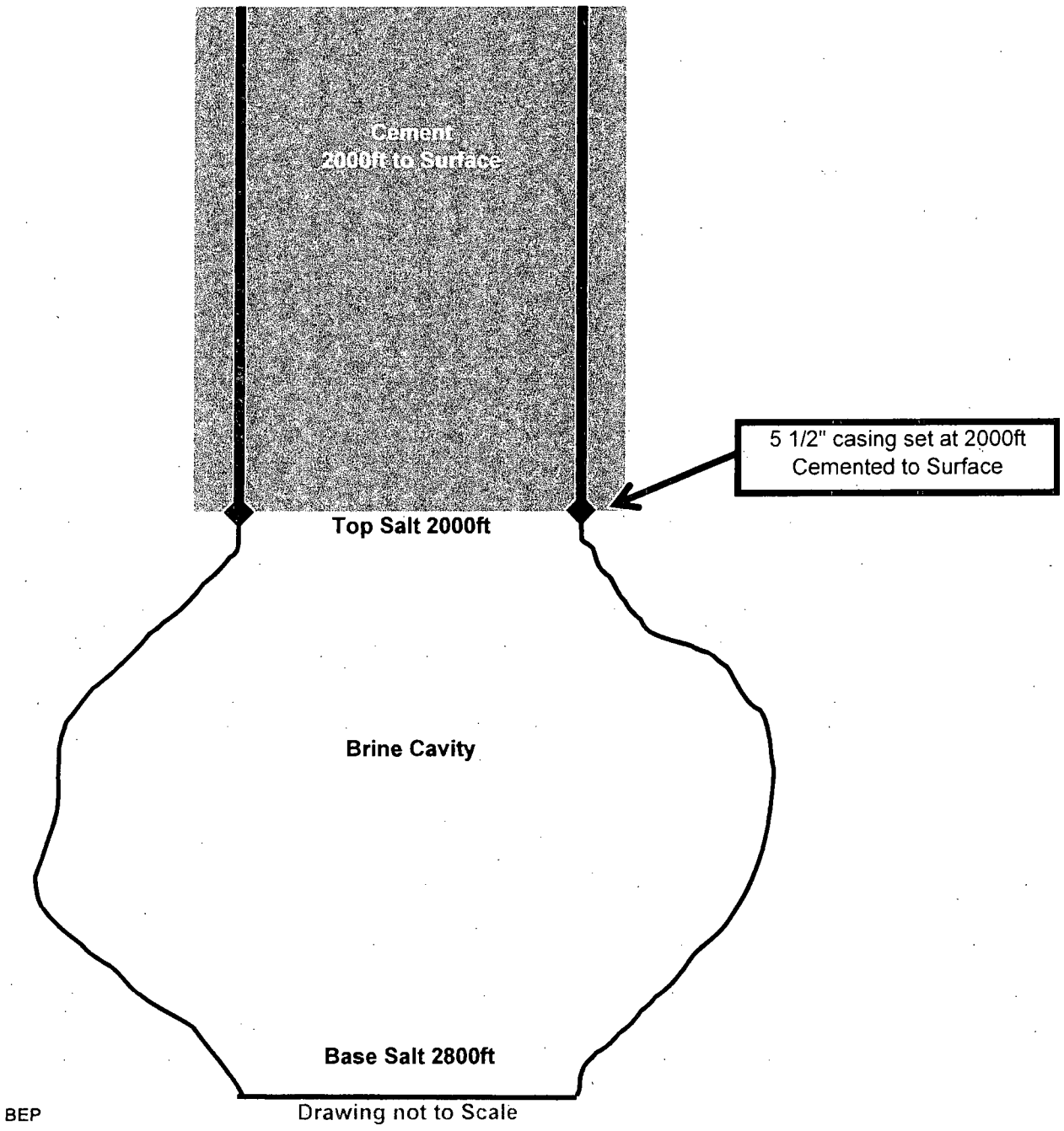
John R Stearns DBA Stearns
KTS Brine # 1
API # 30-025-35702
200 FSL X 200 FEL
Unit Letter P, Sec 27, T9S, R35E
Lea County, New Mexico
Well Prior to Plug and Abandonment



BEP

Drawing not to Scale

John R Stearns DBA Stearns
KTS Brine # 1
API # 30-025-35702
200 FSL X 200 FEL
Unit Letter P, Sec 27, T9S, R35E
Lea County, New Mexico
Well After Plug and Abandonment



BEP

Drawing not to Scale

District I
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State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

RECEIVED
JUL 22 2005
OIL CONSERVATION DIVISION

BW-013

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITES

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal

I. Facility Name: (KTS Brine Facility) John R. Stearns dba Stearns Water Station

II. Operator: John R. Stearns dba Stearns

Address: HC 65 Box 988, Crossroads NM 88114

Contact Person: John R. or Lou Ann Stearns Phone: 505-675-2356

III. Location: SE /4 SE /4 Section 27 Township 9S Range 35E

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

No changes have been made. All information is on file with OCD. (Yearly MITs have been conducted.)

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION:

I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: John R. Stearns Title: Owner

Signature: John R. Stearns Date: July 10, 2005

E-mail Address: N/A

PLEASE INCLUDE $100.00 FILING fee - MADE OUT TO WATER QUALITY MANAGEMENT FUND
$100.00 CK # 5500 Attached

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources Department

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1220 South St. Francis Dr.
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Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

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Name: John R. Stearns Title: Owner

Signature: John R. Stearns Date: July 10, 2005

E-mail Address: N/A

PLEASE INCLUDE $100.00 FILING fee - MADE OUT TO WATER QUALITY MANAGEMENT FUND
CK # 5500 for $100.00 ATTACHED

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge permit application(s) has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-318) – OK Hot Oil Service, Inc., Randy Kinnibrugh, Manager, P.O. Box 146, Loco Hills, NM 88255, has submitted a discharge plan application for their Loco Hills Facility located in the NW/4 Section 29, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. Approximately 20 barrels per month of waste water, will be collected and stored in a double lined containment prior to transport to an offsite OCD approved disposal site. Groundwater most likely to be affected in the event of an accidental discharge is at a depth of approximately 260 feet with a total dissolved solids concentration of approximately 5000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed and the proper management of all waste. The plan also included a proposed modification to up-grade the best management practices at the site.

(BW-013) - Mr. John R. Stearns, dba Stearns, HCR 65 P.O. Box 988, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their insitu extraction brine well facility located in SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentration of about 320,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 feet with an estimated total dissolved solids concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The draft discharge permit may also be viewed at OCD's web site http://www.emnrd.state.nm.us/ocd/. Prior to ruling on any proposed discharge permit or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 25th day of July 2005.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director

DRAFT

July 25, 2005

CERTIFIED MAIL
RETURN RECEIPT NO.

John R. Stearns
John R. Stearns dba Stearns Water Station
HC 65 Box 988
Crossroads, NM 88114

Re: Discharge Permit BW-013
API # 30-025-35702
Lea County, New Mexico

Dear Mr. Stearns:

The groundwater discharge renewal application for the John R. Stearns dba Stearns Water Station BW-013 operated by John R. Stearns dba Stearns Water Station located in the SE/4, SE/4 of Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge plan was approved on July 15, 1985 by the Environment Improvement Division with an expiration date of July 15, 1990. The discharge plan renewal application, including attachments, dated July 10, 2005 submitted pursuant to Section 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit renewal application was submitted pursuant to Section 20.6.2.5101 of the New Mexico Water Quality Control Commission (WQCC) Regulations. The discharge permit is issued pursuant to Section 5101 and 3109.C. Please note Section 3109.G., which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve John R. Stearns dba Stearns Water Station of liability should operations result in pollution of surface or ground waters, or the environment.

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

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

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire July 15, 2010** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 5101.F. of the regulations, if a discharger submits a discharge renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The $100.00 filing fee has been received by OCD. The $1700.00 flat fee shall be submitted upon receipt of this approval.

Please make all checks payable to: **Water Quality Management Fund**
C/o: Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail wayne.price@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief
RCA/lwp

Attachment-1
xc: OCD District Office

ATTACHMENT TO THE DISCHARGE Permit APPROVAL
John R. Stearns dba Stearns Water Station (BW-013)
API # 30-025-35702
DISCHARGE PERMIT APPROVAL CONDITIONS
July 25, 2005

1. Payment of Discharge Plan Fees: The $100.00 filing fee has been received by OCD. The $1700.00 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.

2. Commitments: John R. Stearns dba Stearns Water Station will abide by all commitments submitted in the discharge permit renewal application and these conditions for approval.

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

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

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

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

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

8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified herein, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Any system found to be leaking shall be reported to OCD within 15 days. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be approved by the OCD prior to installation and must be tested to demonstrate their mechanical integrity every five (5) years. Results of such tests shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. Any system found to be leaking shall be reported to OCD within 15 days. The OCD will be notified at least 72 hours prior to all testing.

10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.

12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203.

13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.

14. Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.

15. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.

16. Storm Water Plan: Stormwater runoff plans and controls shall be maintained. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then immediate corrective actions shall be taken to stop the discharge. OCD shall be notified within 24 hours of discovery and the permit shall be modified within 15 days and submitted for OCD approval.

17. Well Work Over Operations: OCD approval will be obtained from the Director prior to performing remedial work, pressure test or any other Work over. Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103.A.) with appropriate copies sent to the OCD Environmental Bureau and District Office.

18. Production Method: Fresh water will be injected down the casing and brine shall be recovered up the tubing. Reverse flow will be allowed only once a month for up to 24 hours for clean out.

19. Maximum Injection Pressure: The maximum operating injection and/or test pressure at the well head will be such that the fracture pressure of the injection formation will not be exceeded and will not cause new fractures or propagate existing fractures or cause damage to the system.

20. Mechanical Integrity Testing: Conduct an annual open to formation pressure test by pressuring up the formation with fluids to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. However, no operator may exceed surface injection or test pressures that may cause formation fracturing (see item 4 above) or system failures. Systems requiring test pressures less than 300 psig or methods

that use testing media other than fluids, i.e. gas, must be approved by OCD prior to testing. Brine supply wells operating with isolation packers will have to pressure test both the cavern formation and casing/tubing annuals. At least once every five years and during well work-overs the cavern formation will be isolated from the casing/tubing annuals and the casing pressure tested at 300 psig for 30 minutes. All pressure tests must be witnessed by OCD.

21. Capacity/ Cavity Configuration and Subsidence Survey: The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment. This information shall be supplied in each annual report. OCD may require the operator to perform additional well surveys, test, and install subsidence monitoring in order to demonstrate the integrity of the system. If the operator cannot demonstrate the integrity of the system to the satisfaction of the Division then the operator may be required to shut-down, close the site and properly plug and abandoned the well.

22. Production/Injection Volumes: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the first day of January of each year.

23. Analysis of Injection Fluid and Brine: Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (method 40 CFR 136.3) using EPA methods.

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

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

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

John R. Stearns dba Stearns Water Station

Print Name:_____

Signature: _____

Title:_____

Date:_____

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
John E.Stearns dba STEARNS HCR 65 Box 988 Crossroads, NM 88114	021566
	[3] Reason for Filing Code: CH 10/1/99

[4] API Number	[5] Pool Name	[6] Pool Code
30-025-35702	Brine Supply	96347
[7] Property Code	[8] Property Name	[9] Well Number
25003	Kenneth Tank Service Brine Facility BW-013	#1

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet from the	North/South Line	Feet from the	East/West line	County
P	27	9S	35E		~~SE1/4 SE1/4 SE1/4~~ 500	S	300	E	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] POD	[21] O/G	[22] POD ULSTR Location and Description

IV. Produced Water

[23] POD	[24] POD ULSTR Location and Description

V. Well Completion Data

[25] Spud Date	[26] Ready Date	[27] TD	[28] PBTD	[29] Perforations

[30] Hole Size	[31] Casing & Tubing Size	[32] Depth Set	[33] Sacks Cement

VI. Well Test Data

[34] Date New Oil	[35] Gas Delivery Date	[36] Test Date	[37] Test Length	[38] Tbg. Pressure	[39] Csg. Pressure
[40] Choke Size	**[41] Oil**	**[42] Water**	**[43] Gas**	**[44] AOF**	**[45] Test Method**

[46] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: [signature]

Printed name: John R.Stearns

Title: Owner

Date: Oct.1,1999 Phone: 505-575-2356

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY

Title: PAUL F. KAUTZ PETROLEUM ENGINEER

Approval Date: SEP 27 2001

[47] If this is a change of operator fill in the OGRID number and name of the previous operator

[signature]	Charles K. Kinsolving	owner	Oct.1,1999
Previous Operator Signature	Printed Name	Title	Date

OCD ENVIRONMENTAL BUREAU

SITE INSPECTION SHEET

675-2424
369-5295
BOBBY STEARNS

DATE: 12/14/00 Time: 4 PM

Type of Facility: Refinery ☐ Gas Plant ☐ Compressor St. ☐ Brine St. ☑ Oilfield Service Co. ☐
Surface Waste Mgt. Facility ☐ E&P Site ☐ Crude Oil Pump Station ☐
Other ☐ _____

Discharge Plan: No ☐ Yes ☑ DP# BW-013

FACILITY NAME: STREANS BRINE WELL NO API #

PHYSICAL LOCATION: 1 MI S of CROSSROADS

Legal: QTR SE QTR SE Sec 27 TS 9S R 35E County LEA

OWNER/OPERATOR (NAME) _____

Contact Person: BOBBY STREANS Tele:# _____

MAILING

ADDRESS: _____ State _____ ZIP _____

Owner/Operator Rep's: _____

_____

OCD INSPECTORS: W PRICE

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

NA

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

OK

3. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

OK

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

NA

5. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

—

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

Pit - FRESH WATER

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

BRINE WELL TO TANKS

8. Onsite/Offsite Waste Disposal and Storage Practices: Are all wastes properly characterized and disposed of correctly? Does the facility have an EPA hazardous waste number? _____ Yes _____ No

ARE ALL WASTE CHARACTERIZED AND DISPOSED OF PROPERLY? YES ☐ NO ☐ IF NO DETAIL BELOW.

9. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

ANY CLASS V WELLS NO ☑ YES ☐ IF YES DESCRIBE BELOW ! Undetermined ☐

10. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

good

11. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the proper OCD District Office.

—

12. Does the facility have any other potential environmental concerns/issues?

0 —

13. Does the facility have any other environmental permits - i.e. SPCC, Stormwater Plan, etc.?

14. ANY WATER WELLS ON SITE ? NO ☐ YES ☑ IF YES, HOW IS IT BEING USED ?

2 WELLS ON SITE

Miscellaneous Comments:

MIT - OPEN HOLE

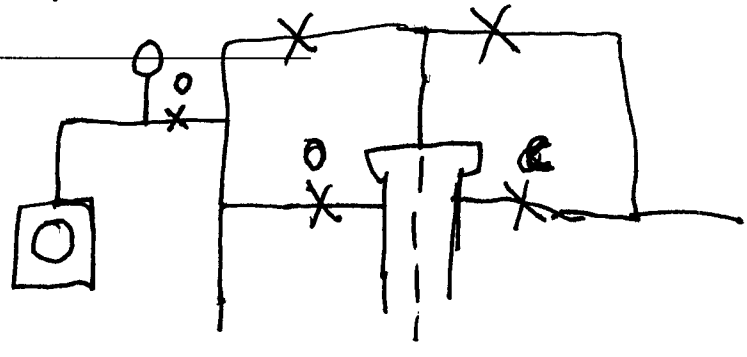
GAGE 0-600 START 4 PM 355 PSIG

STOP 8 PM 355 PSIG

Number of Photos taken at this site: _____
attachments-

OCD Inspection Sheet
Page ___ of ____

RECORDER
24 HOUR
0-1000#



John R. Stearns dba STEARNS
HCR 65 Box 988
Crossroads, NM 88114
August l, 2000

N.M. Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Re: Discharge Plan BW-013

Dear Mr. Wayne Price:

I appreciate your verbal extension of the first annual report of Discharge Plan BW-013 due date from August l, 2000 to September 29, 2000. The tests and applicable information requested should be completed by the September date. A mechanical integrity test was done on the well in October 1999. Quarterly reports of production and water analysis have been sent through April 2000. I have a current water analysis that was done in June of this year which reflects basically the same results as we have been seeing through the past few quarters.

As mentioned in the fax sent to you July 31, 2000, I need the formulas you offered to send me to calculate the cavity size and stability i.e. roof cavity equation-depth. When I receive these formulas from you I should be able to calculate the requested information for the report.

Again, I thank you for helping with this project.

Sincerely

Lou Ann Stearns

July 31, 2000.

New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division
Santa Fe, NM 87505

Fax # 505-827-8177 (One page faxed)
Attn: Wayne Price

Re: John R. Stearns dba Stearns Water Station
Discharge Plan BW-013 Renewal

Message:
I Appreciated our telephone conversation AND your approval of an extention of the Reports and test data on our Discharge Plan BW-013. A letter confirming the agreed date of Sept. 29, 2000 for the first annual Report AND A Request for the Additional info I need will be in the mail to your office shortly.

Thanks Again!

Sincerely
John Stearns

Price, Wayne

From: Price, Wayne
Sent: Wednesday, September 06, 2000 3:57 PM
To: Pitzer, Donna
Cc: Prichard, Billy; Phillips, Dorothy
Subject: C-104 Stearns Brine well

Donna:

Well #1 UL P sec 27-Ts9s-R35e
200 fsl 200 fel

Please find attached a letter approving the Bond for this well. Please process the C-104.

Thanks!

Scan3.jpg

9/13/00 -

DONNA is WAITING ON API # -

AS SOON AS SHE GET'S IT SHE

WILL PROCESS C-104.

J

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of March 3, 2000 and ending with the issue of March 3, 2000.

And that the cost of publishing said notice is the sum of $ 55.00 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 3rd day of March 2000.

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(BW-013) - Mr. John R. Stearns, dba Stearns, HCR 65 P.O. Box 988, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their insitu extraction brine well facility located in SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentration of about 320,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 feet with an estimated total dissolved solids concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain ~~further~~ information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan application, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public ~~hearing shall set~~ forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 28th day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

SEAL

Published in the Lovington Daily Leader March 3, 2000.

The Santa Fe New Mexican

Since 1849. We Read You.

RECEIVED
MAR - 8 2000
OIL CONSERVATION DIVISION

NM OIL CONSERVATION DIVISION
ATTN: DONNA DOMINGUEZ
2040 S. PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 135705 ACCOUNT: 56689
LEGAL NO: 66985 P.O.#: 00199000278
180 LINES 1 time(s) at $ 79.35
AFFIDAVITS: 5.25
TAX: 5.29
TOTAL: 89.89

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, B Perner being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #66985 a copy of which is hereto attached was published in said newspaper 1 day(s) between 03/03/2000 and 03/03/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 3 day of March, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Betsy Perner
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 6 day of March A.D., 2000

Notary Candace L. Dunton

Commission Expires 11/16/2003

OK Wayne
3/28/00

NOTICE OF PUBLICATION

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

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If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 28th day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

Legal #66985
Pub. March 3, 2000

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 28th day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 2/24/00,

or cash received on _____ in the amount of $ 50.00

from STEARNS

for STEARNS BRINE WELL BW-013
(Facility Name) (DP No.)

Submitted by: WAYNE PRICE Date: 2/28/00

Submitted to ASD by: Wayne Price Date: "

Received in ASD by: _____ Date: _____

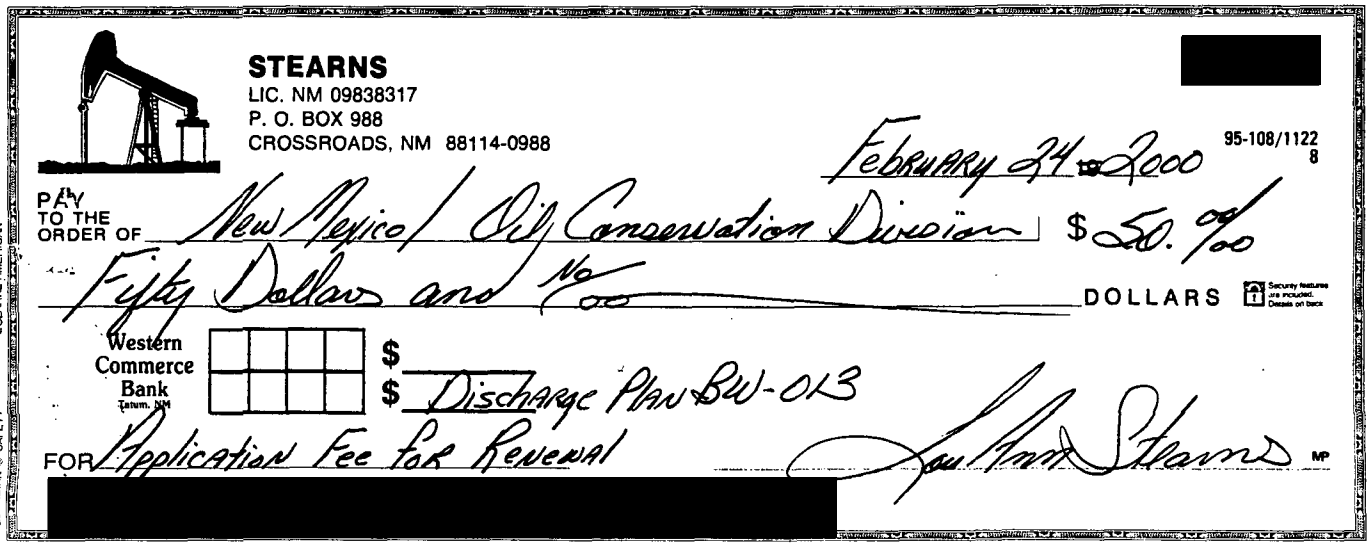
Filing Fee ✓ New Facility ___ Renewal ___

Modification ___ Other _____
(specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___



STEARNS
LIC. NM 09838317
P. O. BOX 988
CROSSROADS, NM 88114-0988

[redacted]

95-108/1122
8

February 24 2000

PAY TO THE ORDER OF New Mexico Oil Conservation Division $ 50.00

Fifty Dollars and No/00 DOLLARS

Security features are included. Details on back

Western Commerce Bank
Tatum, NM

$ _____
$ Discharge Plan BW-013

FOR Application Fee for Renewal

[redacted]

Lou Ann Stearns MP

©CLARKE AMERICAN XS
GUARDIAN & SAFETY

John R. Stearns dba Stearns

HC 65 Box 988
Crossroads, NM 88114

Phone (505) 675-2356
Fax (505) 675-2339

February 24, 2000

State of New Mexico
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco St., P.O. Box 2088
Santa Fe, NM 87501

This letter is to request changes to be made from the former ownership of C.K. Kinsolving dba Kenneth Tank Service, Kenneth Tank Service Brine Production Facility with Discharge Plan No. BW-013 to John R. Stearns dba Stearns. These changes have been discussed with Wayne Price and Roger Anderson.

John R. Stearns dba Stearns now operates the KTS Brine Production Facility in Lea County at the location of: SE/4, SE/4,Sec.27, T9S, R35E. We request this change to be made on our discharge plan BW-013 and ownership of the brine well.

We also are requesting the release of the plugging bond on said well that is currently held by C.K. Kinsolving dba Kenneth Tank Service, Fireman's Fund Bond #SLR 6384300 be released and replaced by the blanket plugging bond held by John R. Stearns dba Stearns, RLI Insurance Surety Bond No. ~~RLB001215~~ RLB0001215. (See attached copy of letter dated July 28, 1999 from Lori Wrotenbery stating approval of this bond by the OCD.) A completed C-104 is waiting in the Hobbs office for approval of this bond to transfer ownership.

The Discharge Plan BW-013 in the name of C.K. Kinsolving dba Kenneth Tank Service expires in July 2000. We are asking for a name change on the current plan (operations remain the same) and request renewal in the new name. Please find attached a renewal request in the name of John R.Stearns dba Stearns as well as a check for the $50.00 filing fee.

We appreciate your help and guidance in getting this transfer done correctly and know this change will merely mean a continuation of our past experience with this facility.

Sincerely yours,

Lou Ann Stearns
John R. Stearns dba Stearns

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury
CABINET SECRETARY

Oil Conservation Div.
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Memorandum of Meeting or Conversation

Telephone __X___
Personal _____
E-Mail _____
Time: 4pm
Date: 2/22/00

Originating Party: **Wayne Price-OCD**

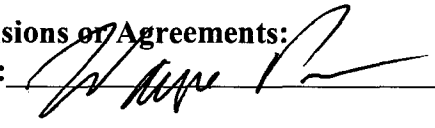
Other Parties: **Lou Ann Stearns- Kennith Tank Service. BW-013**

Subject: **Discharge Plan Renewal Notice for the following Facilities:**

GW- 013	**Name**	**expires**	**07/15/2000**
GW-___	**Name**	**expires**	
GW-___	**Name**	**expires**	
GW-___	**Name**	**expires**	

WQCC 3106.F. If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

Discussion: Discussed WQCC 3106F and gave notice to submit Discharge Plan renewal application with $50.00 filing fee for the above listed facilities.

Conclusions or Agreements:
Signed: 

CC: **LouAnn Stearns fax 505-675-2339**

APPLICATION 2/22/00

TO: Roger Anderson

FROM: DONNA Pitzer

ENERGY, MINERALS & RESOURCES DEPT.
OIL CONSERVATION DIVISION
DISTRICT I
1625 N French Dr
Hobbs NM 88240

(505) 393-6161 EXT. 115

___ FOR YOUR FILES

___ FOR YOUR REVIEW & RETURN

✓ FOR YOUR HANDLING

___ AS PER YOUR REQUEST

✓ PLEASE ADVISE

___ PREPARE A REPLY FOR MY SIGNATURE

___ FOR YOUR INFORMATION

___ FOR YOUR APPROVAL

___ FOR YOUR SIGNATURE

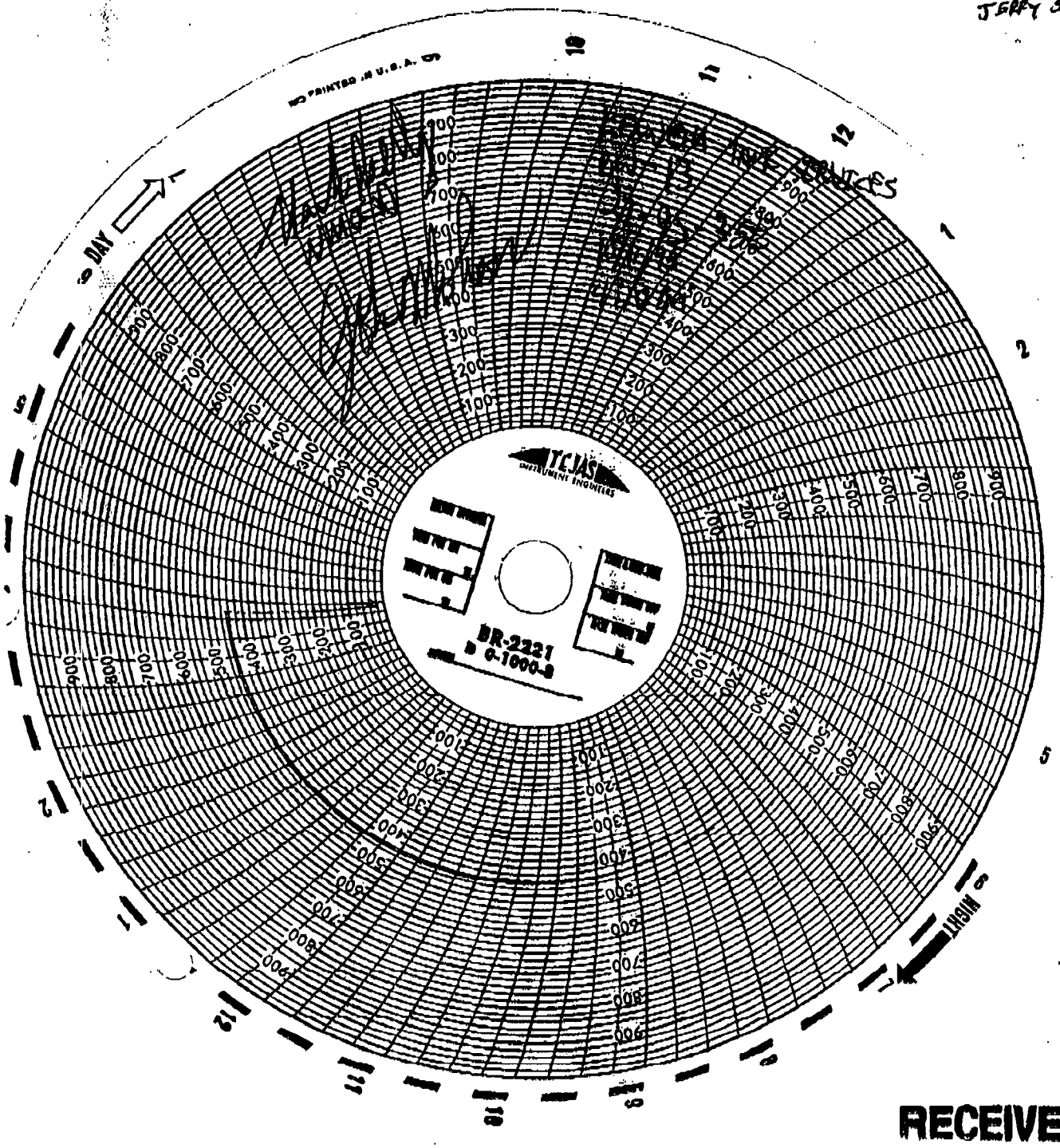
___ FOR YOUR ATTENTION

Pg. 2 & 3 & 4 is what we have in Hobbs well file.

Pg. 5 received 10/25/99

Please call Chris

CC: WELL FILE
JERRY SEXTON



RECEIVED
NOV 2 8 1995
OCD HOBBS
OFFICE

ENERGY AND MINERALS DEPARTMENT

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U.S.G.S.		
LAND OFFICE		
OPERATOR		

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: M-15635

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL [ ] GAS WELL [ ] OTHER- Brine Well

7. Unit Agreement Name: KTS Brine

Name of Operator: C.K. Kinsolving dba Kenneth Tank Service

8. Farm or Lease Name: --

Address of Operator: Box 100 Crossroads, NM 88114

9. Well No.: 1

Location of Well: UNIT LETTER P, 200 FEET FROM THE South LINE AND 200 FEET FROM THE East LINE, SECTION 27 TOWNSHIP 9S RANGE 35E NMPM.

10. Field and Pool, or Wildcat:

15. Elevation (Show whether DF, RT, GR, etc.):

12. County: Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

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

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

Above well drilled and completed approximately 1966 by Mansell Brine Sales, Midland, Texas, later purchased by C.K. Kinsolving.
The brine well is reported by Mr. Mansell to be cased with 7 inch casing to a depth of 2000 feet with cement circulated to the surface. The total depth of the well is 2800 feet. Fresh water is injected into the bri. well under 300 pounds pressure and the brine water is returned to the surface through a 2½ inch tubing inside the 7 inch casing.

Kenneth Tank Service pays quarterly royalty payments to Land Office on brine sales. Lease #M-15635

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

SIGNED C.K. Kinsolving TITLE Owner DATE 2/28/83

APPROVED BY ORIGINAL SIGNED BY JERRY SEXTON DISTRICT I SUPERVISOR TITLE _____ DATE APR 18 1983

CONDITIONS OF APPROVAL, IF ANY:

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
K.Kinsolving dba Kenneth Tank Service	K.J. Brine	1

Unit Letter	Section	Township	Range	County
K	27	9 S	38E	Lea

Actual Footage Location of Well:
200 feet from the South line and 200 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
	Salt Section		Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

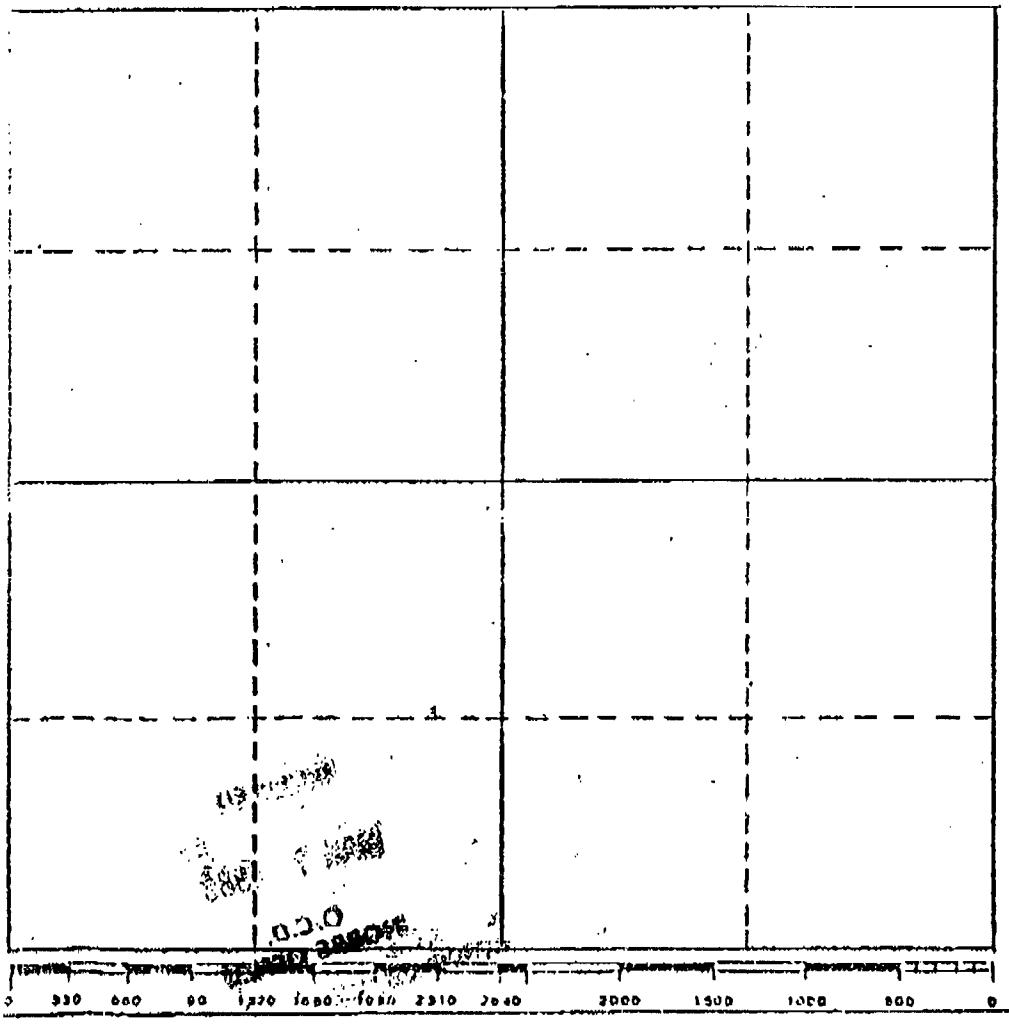
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

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

Name: Owner

Position: Kenneth Tank Service

Company

Date: 2/23/83

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
John R. Stearns dba STEARNS HCR 65 Box 988 Crossroads, NM 88114	021566
	[3] Reason for Filing Code CH 10/1/99

[4] API Number	[5] Pool Name	[6] Pool Code
30 - 0		
[7] Property Code	[8] Property Name	[9] Well Number
	Kenneth Tank Service Bwine Facility BW-013	#1

II. [10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
P	27	9S	35E		SE¼, SE¼, SE¼				Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] POD	[21] O/G	[22] POD ULSTR Location and Description

IV. Produced Water

[23] POD	[24] POD ULSTR Location and Description

V. Well Completion Data

[25] Spud Date	[26] Ready Date	[27] TD	[28] PBTD	[29] Perforations

[30] Hole Size	[31] Casing & Tubing Size	[32] Depth Set	[33] Sacks Cement

VI. Well Test Data

[34] Date New Oil	[35] Gas Delivery Date	[36] Test Date	[37] Test Length	[38] Tbg. Pressure	[39] Csg. Pressure

[40] Choke Size	[41] Oil	[42] Water	[43] Gas	[44] AOF	[45] Test Method

[46] I hereby certify that the rules of the Oil Conservation Division have been

John R. Stearns dba Stearns

HC 65 Box 988
Crossroads, NM 88114

Phone (505) 675-2356
Fax (505) 675-2339

February 24, 2000

State of New Mexico
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
2040 S. Pacheco St., P.O. Box 2088
Santa Fe, NM 87501

This letter is to request changes to be made from the former ownership of C.K. Kinsolving dba Kenneth Tank Service, Kenneth Tank Service Brine Production Facility with Discharge Plan No. BW-013 to John R. Stearns dba Stearns. These changes have been discussed with Wayne Price and Roger Anderson.

John R. Stearns dba Stearns now operates the KTS Brine Production Facility in Lea County at the location of: SE/4, SE/4,Sec.27, T9S, R35E. We request this change to be made on our discharge plan BW-013 and ownership of the brine well.

We also are requesting the release of the plugging bond on said well that is currently held by C.K. Kinsolving dba Kenneth Tank Service, Fireman's Fund Bond #SLR 6384300 be released and replaced by the blanket plugging bond held by John R. Stearns dba Stearns, RLI Insurance Surety Bond No. ~~RLB001215~~. (See attached copy of letter dated July 28, 1999 from Lori Wrotenbery stating approval of this bond by the OCD.) A completed C-104 is waiting in the Hobbs office for approval of this bond to transfer ownership. # RLB000 1215

The Discharge Plan BW-013 in the name of C.K. Kinsolving dba Kenneth Tank Service expires in July 2000. We are asking for a name change on the current plan (operations remain the same) and request renewal in the new name. Please find attached a renewal request in the name of John R.Stearns dba Stearns as well as a check for the $50.00 filing fee.

We appreciate your help and guidance in getting this transfer done correctly and know this change will merely mean a continuation of our past experience with this facility.

Sincerely yours,

Lou Ann Stearns
John R. Stearns dba Stearns

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

July 28, 1999

Mr. John R. Stearns
John R. Stearns dba Stearns
P.O. Box 988
Crossroads, NM 88114

Copy

Re: $50,000 Blanket Plugging Bond
John R. Stearns dba Stearns, Principal
RLI Insurance Company, Surety
Bond No. RLB0001215

Dear Mr. Stearns:

The New Mexico Oil Conservation Division hereby approves the above-captioned blanket plugging bond.

Sincerely,

Lori Wrotenbery

Lori Wrotenbery,
Director

LW/dp

cc: RLI Insurance Company
8 Greenway Plaza, Suite 400
Houston, TX 77046

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW (☒ RENEWAL) BW-013

I. FACILITY NAME: KTS Brine Production Facility BW-013

II. OPERATOR: John R. Stearns dba Stearns

ADDRESS: HC 65 Box 988 Crossroads, NM 88114

CONTACT PERSON: John R. or LouAnn Stearns PHONE: 505-675-2356

III. LOCATION: SE/4 SE/4 Section 27 Township 9S Range 35E
Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

See BW-013 Discharge Plan File

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

Catch pit has been relined and brine loading valves have Catch Basins.

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Lou Ann Stearns Title: Owner

Signature: [signature] Date: February 24,2000

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

FAX to: Wayne Price
OCD

FAX # 505-827-8177
Phone # 827-7155

From: LouAnn Stearns Phone # 505-675-2356

Date: 2/24/00

Cover + 3 pages.

Message:

Please find copy of letter requesting Brine facility name change, & copy of Ms. Whatenberg's letter, and renewal of BW-013 Discharge Plan request.

Hard copies AND $50.00 app. fee will be mailed.

Thank you!
LouAnn

Price, Wayne

From: Price, Wayne
Sent: Wednesday, February 23, 2000 11:46 AM
To: Williams, Chris; Pitzer, Donna
Cc: Williams, Donna
Subject: Kenneth Tank Ser. Brine Well Transfer


Memo223.doc


Memodpno.doc

American Environmental Network, Inc.

AEN I.D. **709348**

October 24, 1997

NMOCD
2040 S. PACHECO
SANTA FE, NM 87505

Project Name/Number: BRINE WELLS

Attention: Mark Ashley

On **09/18/97**, American Environmental Network (NM) Inc., (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

All analyses were performed by American Environmental Network (AZ) Inc., 9830 S. 51st Street, Suite B-113, Phoenix, AZ.

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

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
General Manager

MR:jt

Enclosure

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (602) 344-4413

American Environmental Network, Inc.

CLIENT : NMOCD
PROJECT # : (NONE)
PROJECT BRINE WELLS

DATE RECEIVED: 09/18/97
REPORT DATE : 10/24/97

AEN ID: 709348

	AEN ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	709348-01	9715090705 (WASSER)	AQUEOUS	09/15/97
02	709348-02	9709151015 (KEN#1)	AQUEOUS	09/15/97
03	709348-03	9709151045 (KEN#2)	AQUEOUS	09/15/97
04	709348-04	9709151100 (RANCH)	AQUEOUS	09/15/97
05	709348-05	9709160940 (CONOCO#3)	AQUEOUS	09/16/97
06	709348-06	9709160950 (CONOCO#1)	AQUEOUS	09/16/97
07	709348-07	9709161515 (BRINE#4)	AQUEOUS	09/16/97

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	7

AEN STANDARD DISPOSAL PRACTICE

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

American Environmental Network, Inc.

AEN I.D. 709284

October 23, 1997

American Environmental Network-NM
2709-D Pan American Frwy, NE
Albuquerque, NM 87107

Project Name/Number: NMOCD/709348

Attention: Kimberly D. McNeill

On 9/19/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Due to matrix interferences, EPA method 300.0 - Bromide analysis of sample 709348-07 was performed at a dilution. The reporting limits have been raised accordingly.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Linda Eshelman
Project Manager
LE/acc
Enclosure

ADHS License No. AZ0061
Sherman McCutcheon, General Manager

American Environmental Network, Inc.

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 09/19/97
PROJECT # : 709348
PROJECT NAME : NMOCD REPORT DATE : 10/23/97

ATI I.D. : 709284

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	709348-01	AQUEOUS	09/15/97
02	709348-02	AQUEOUS	09/15/97
03	709348-03	AQUEOUS	09/15/97
04	709348-04	AQUEOUS	09/15/97
05	709348-05	AQUEOUS	09/16/97
06	709348-06	AQUEOUS	09/16/97
07	709348-07	AQUEOUS	09/16/97

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	7

ATI STANDARD DISPOSAL PRACTICE

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

American Environmental Network, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 709284

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 09/19/97
PROJECT # : 709348
PROJECT NAME : NMOCD REPORT DATE : 10/23/97

PARAMETER	UNITS	01	02	03	04	05
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	156	101	95	101	293
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	156	101	95	101	293
BROMIDE (EPA 300.0)	MG/L	0.4	2.0	2.4	1.8	1.3
CHLORIDE (EPA 325.2)	MG/L	29	730	820	860	230
CONDUCTIVITY, (UMHOS/CM)		494	2610	2710	2890	1610
FLUORIDE (EPA 340.2)	MG/L	0.76	0.62	0.56	0.59	1.75
PH (EPA 150.1)	UNITS	8.0	7.9	7.9	7.9	7.7
SULFATE (EPA 375.2)	MG/L	50	180	170	200	200
T. DISSOLVED SOLIDS (160.1)	MG/L	320	2000	2000	2000	1100

American Environmental Network, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 709284

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 09/19/97
PROJECT # : 709348
PROJECT NAME : NMOCD REPORT DATE : 10/23/97

PARAMETER	UNITS	06	07
CARBONATE (CACO3)	MG/L	<1	4
BICARBONATE (CACO3)	MG/L	275	65
HYDROXIDE (CACO3)	MG/L	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	275	69
BROMIDE (EPA 300.0)	MG/L	1.5	<60
CHLORIDE (EPA 325.2)	MG/L	230	43000
CONDUCTIVITY, (UMHOS/CM)		1530	132000
FLUORIDE (EPA 340.2)	MG/L	1.51	1.47
PH (EPA 150.1)	UNITS	7.8	8.4
SULFATE (EPA 375.2)	MG/L	170	1000
T. DISSOLVED SOLIDS (160.1)	MG/L	1100	70000

American Environmental Network, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 709348
PROJECT NAME : NMOCD ATI I.D. : 709284

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	70928401	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		156	156	0	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		156	156	0	NA	NA	NA
BROMIDE	MG/L	70928406	1.5	1.5	0	3.5	1.5	133
CHLORIDE	MG/L	70915301	42	46	9	90	50	96
CONDUCTIVITY(UMHOS/CM)		70826103	831	834	0.4	NA	NA	NA
FLUORIDE	MG/L	70925001	2.76	2.73	1	5.75	3.00	100
PH	UNITS	70928401	8.0	8.1	1	NA	NA	NA
SULFATE	MG/L	70928401	50	50	0	150	100	100
SULFATE	MG/L	70928402	180	200	11	390	200	105
SULFATE	MG/L	70914501	160	170	6	270	100	110
TOTAL DISSOLVED SOLIDS	MG/L	70928401	320	330	3	NA	NA	NA

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network, Inc.

METALS RESULTS

ATI I.D. : 709284

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 09/19/97
PROJECT # : 709348
PROJECT NAME : NMOCD REPORT DATE : 10/23/97

PARAMETER	UNITS	01	02	03	04	05
CALCIUM (EPA 200.7/6010)	MG/L	46.1	239	318	235	110
POTASSIUM (EPA 200.7/6010)	MG/L	2.6	6.0	6.1	8.0	5.2
MAGNESIUM (EPA 200.7/6010)	MG/L	8.5	85.6	100	89.3	35.2
SODIUM (EPA 200.7/6010)	MG/L	35.1	142	76.4	179	160

American Environmental Network, Inc.

METALS RESULTS

ATI I.D. : 709284

CLIENT : AMERICAN ENV. NETWORK OF NM, INC. DATE RECEIVED : 09/19/97
PROJECT # : 709348
PROJECT NAME : NMOCD REPORT DATE : 10/23/97

PARAMETER	UNITS	06	07
CALCIUM (EPA 200.7/6010)	MG/L	93.6	312
POTASSIUM (EPA 200.7/6010)	MG/L	5.5	155
MAGNESIUM (EPA 200.7/6010)	MG/L	29.9	297
SODIUM (EPA 200.7/6010)	MG/L	157	22800

American Environmental Network, Inc.

METALS - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 709348
PROJECT NAME : NMOCD ATI I.D. : 709284

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CALCIUM	MG/L	70928401	46.1	46.0	0.2	91.4	50.0	91
POTASSIUM	MG/L	70928401	2.6	2.7	4	51.4	50.0	98
MAGNESIUM	MG/L	70928401	8.5	8.6	1	32.3	25.0	95
SODIUM	MG/L	70928401	35.1	35.4	0.9	79.1	50.0	88

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network, Inc.

DATE OF ANALYSIS REPORT

AEN ID: 709284

23-Oct-97

METHOD	SAMPLE #	DATE	ANALYST
ALKALINITY (EPA 310.1)	01	09/22/97	MARLA WILSON
	02	09/22/97	MARLA WILSON
	03	09/22/97	MARLA WILSON
	04	09/22/97	MARLA WILSON
	05	09/22/97	MARLA WILSON
	06	09/22/97	MARLA WILSON
	07	09/22/97	MARLA WILSON
BROMIDE (EPA 300.0)	01	09/30/97	MARLA WILSON
	02	09/30/97	MARLA WILSON
	03	09/30/97	MARLA WILSON
	04	09/30/97	MARLA WILSON
	05	09/30/97	MARLA WILSON
	06	09/30/97	MARLA WILSON
	07	09/30/97	MARLA WILSON
CALCIUM (EPA 200.7/6010)	01	10/20/97	JACKIE L. CLEMENT
	02	10/20/97	JACKIE L. CLEMENT
	03	10/20/97	JACKIE L. CLEMENT
	04	10/20/97	JACKIE L. CLEMENT
	05	10/20/97	JACKIE L. CLEMENT
	06	10/20/97	JACKIE L. CLEMENT
	07	10/20/97	JACKIE L. CLEMENT
CHLORIDE (EPA 325.2)	01	09/21/97	CARLENE MCCUTCHEON
	02	09/21/97	CARLENE MCCUTCHEON
	03	09/21/97	CARLENE MCCUTCHEON
	04	09/21/97	CARLENE MCCUTCHEON
	05	09/21/97	CARLENE MCCUTCHEON
	06	09/21/97	CARLENE MCCUTCHEON
	07	09/21/97	CARLENE MCCUTCHEON
CONDUCTIVITY, (UMHOS/CM)	01	09/24/97	PAUL STRICKLER
	02	09/24/97	PAUL STRICKLER
	03	09/24/97	PAUL STRICKLER
	04	09/24/97	PAUL STRICKLER
	05	09/24/97	PAUL STRICKLER

Methods for Chemical Analysis of Water and Wastes, EPA-600 4-79-020, March 1983

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600-R-93/100

METHOD	SAMPLE #	DATE	ANALYST
CONDUCTIVITY, (UMHOS/CM)	06	09/24/97	PAUL STRICKLER
	07	09/24/97	PAUL STRICKLER
FLUORIDE (EPA 340.2)	01	10/03/97	MARLA WILSON
	02	10/03/97	MARLA WILSON
	03	10/03/97	MARLA WILSON
	04	10/03/97	MARLA WILSON
	05	10/03/97	MARLA WILSON
	06	10/03/97	MARLA WILSON
	07	10/03/97	MARLA WILSON
MAGNESIUM (EPA 200.7/6010)	01	10/20/97	JACKIE L. CLEMENT
	02	10/20/97	JACKIE L. CLEMENT
	03	10/20/97	JACKIE L. CLEMENT
	04	10/20/97	JACKIE L. CLEMENT
	05	10/20/97	JACKIE L. CLEMENT
	06	10/20/97	JACKIE L. CLEMENT
	07	10/20/97	JACKIE L. CLEMENT
PH (EPA 150.1)	01	09/22/97	MARLA WILSON
	02	09/22/97	MARLA WILSON
	03	09/22/97	MARLA WILSON
	04	09/22/97	MARLA WILSON
	05	09/22/97	MARLA WILSON
	06	09/22/97	MARLA WILSON
	07	09/22/97	MARLA WILSON
POTASSIUM (EPA 200.7/6010)	01	10/20/97	JACKIE L. CLEMENT
	02	10/20/97	JACKIE L. CLEMENT
	03	10/20/97	JACKIE L. CLEMENT
	04	10/20/97	JACKIE L. CLEMENT
	05	10/20/97	JACKIE L. CLEMENT
	06	10/20/97	JACKIE L. CLEMENT
	07	10/20/97	JACKIE L. CLEMENT
SODIUM (EPA 200.7/6010)	01	10/20/97	JACKIE L. CLEMENT
	02	10/20/97	JACKIE L. CLEMENT
	03	10/20/97	JACKIE L. CLEMENT
	04	10/20/97	JACKIE L. CLEMENT
	05	10/20/97	JACKIE L. CLEMENT
	06	10/20/97	JACKIE L. CLEMENT

Methods for Chemical Analysis of Water and Wastes, EPA-600 4-79-020, March 1983

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600-R-93/100

METHOD	SAMPLE #	DATE	ANALYST
SODIUM (EPA 200.7/6010)	07	10/20/97	JACKIE L. CLEMENT
SULFATE (EPA 375.2)	01	09/27/97	CARLENE MCCUTCHEON
	02	09/27/97	CARLENE MCCUTCHEON
	03	09/27/97	CARLENE MCCUTCHEON
	04	09/27/97	CARLENE MCCUTCHEON
	05	09/27/97	CARLENE MCCUTCHEON
	06	09/27/97	CARLENE MCCUTCHEON
	07	10/01/97	CARLENE MCCUTCHEON
T. DISSOLVED SOLIDS (160.1)	01	09/21/97	CARLENE MCCUTCHEON
	02	09/21/97	CARLENE MCCUTCHEON
	03	09/21/97	CARLENE MCCUTCHEON
	04	09/21/97	CARLENE MCCUTCHEON
	05	09/21/97	CARLENE MCCUTCHEON
	06	09/21/97	CARLENE MCCUTCHEON
	07	09/21/97	CARLENE MCCUTCHEON

Methods for Chemical Analysis of Water and Wastes, EPA-600 4-79-020, March 1983

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600-R-93/100

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928401
SAMPLE IDENTIFICATION: 709348-01
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	156.000	0.02000	3.12000	
CHLORIDE	29.000	0.02821	0.81809	
FLUORIDE	0.760	0.05264	0.04001	
NITRATE AS N (NO_3(NO_3-N X 4.43)	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	50.000	0.02082	1.04100	
		TOTAL ANIONS		5.019096

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	46.100	0.04990	2.30039	
POTASSIUM	2.600	0.02558	0.06651	
MAGNESIUM	8.500	0.08229	0.69947	
SODIUM	35.100	0.04350	1.52685	
		TOTAL CATIONS		4.593213
		%RPD (<10%)*		8.86
TOTAL ANIONS/CATIONS	(CALCULATED)	265.660		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	320	%RPD (<15%)*	-18.56
ELECTRICAL COND.		494	TDS/EC RATIO (0.65+/-0.10)	0.65

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928402
SAMPLE IDENTIFICATION: 709348-02
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	101.000	0.02000	2.02000	
CHLORIDE	730.000	0.02821	20.59330	
FLUORIDE	0.620	0.05264	0.03264	
NITRATE AS N (NO_3(NO_3-N X 4.43))	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	180.000	0.02082	3.74760	
		TOTAL ANIONS		26.39354

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	239.000	0.04990	11.9261	
POTASSIUM	6.000	0.02558	0.15348	
MAGNESIUM	85.600	0.08229	7.04402	
SODIUM	142.000	0.04350	6.17700	
		TOTAL CATIONS		25.3006
		%RPD (<10%)*		4.23
TOTAL ANIONS/CATIONS	(CALCULATED)	1443.820		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	2000	%RPD (<15%)*	-32.30
ELECTRICAL COND.		2610	TDS/EC RATIO (0.65+/-0.10)	0.77

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928403
SAMPLE IDENTIFICATION: 709348-03
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	95.000	0.02000	1.90000	
CHLORIDE	820.000	0.02821	23.13220	
FLUORIDE	0.560	0.05264	0.02948	
NITRATE AS N (NO_3(NO_3-N X 4.43)	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	170.000	0.02082	3.53940	
		TOTAL ANIONS		28.60108

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	318.000	0.04990	15.8682	
POTASSIUM	6.100	0.02558	0.15604	
MAGNESIUM	100.000	0.08229	8.22900	
SODIUM	76.400	0.04350	3.32340	
		TOTAL CATIONS		27.57664
		%RPD (<10%)*		3.65
TOTAL ANIONS/CATIONS	(CALCULATED)	1548.060		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	2000	%RPD (<15%)*	-25.48
ELECTRICAL COND.		2710	TDS/EC RATIO (0.65+/-0.10)	0.74

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928404
SAMPLE IDENTIFICATION: 709348-04
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	101.000	0.02000	2.02000	
CHLORIDE	860.000	0.02821	24.26060	
FLUORIDE	0.590	0.05264	0.03106	
NITRATE AS N (NO_3(NO_3-N X 4.43))	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	200.000	0.02082	4.16400	
		TOTAL ANIONS		30.47566

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	235.000	0.04990	11.7265	
POTASSIUM	8.000	0.02558	0.20464	
MAGNESIUM	89.300	0.08229	7.34850	
SODIUM	179.000	0.04350	7.78650	
		TOTAL CATIONS		27.06614
		%RPD (<10%)*		11.85
TOTAL ANIONS/CATIONS	(CALCULATED)	1632.490		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	2000	%RPD (<15%)*	-20.23
ELECTRICAL COND.		2890	TDS/EC RATIO (0.65+/-0.10)	0.69

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928405
SAMPLE IDENTIFICATION: 709348-05
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	293.000	0.02000	5.86000	
CHLORIDE	230.000	0.02821	6.48830	
FLUORIDE	1.750	0.05264	0.09212	
NITRATE AS N (NO_3(NO_3-N X 4.43))	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	200.000	0.02082	4.16400	
		TOTAL ANIONS		16.60442

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	110.000	0.04990	5.489	
POTASSIUM	5.200	0.02558	0.13302	
MAGNESIUM	35.200	0.08229	2.89661	
SODIUM	160.000	0.04350	6.96000	
		TOTAL CATIONS		15.47862
		%RPD (<10%)*		7.02
TOTAL ANIONS/CATIONS	(CALCULATED)	917.950		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	1100	%RPD (<15%)*	-18.04
ELECTRICAL COND.		1610	TDS/EC RATIO (0.65+/-0.10)	0.68

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928406
SAMPLE IDENTIFICATION: 709348-06
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	275.000	0.02000	5.50000	
CHLORIDE	230.000	0.02821	6.48830	
FLUORIDE	1.510	0.05264	0.07949	
NITRATE AS N (NO_3(NO_3-N X 4.43))	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	170.000	0.02082	3.53940	
		TOTAL ANIONS		15.60719

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	93.600	0.04990	4.67064	
POTASSIUM	5.500	0.02558	0.14069	
MAGNESIUM	29.900	0.08229	2.46047	
SODIUM	157.000	0.04350	6.82950	
		TOTAL CATIONS		14.1013
		%RPD (<10%)*		10.14
TOTAL ANIONS/CATIONS	(CALCULATED)	852.510		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	1100	%RPD (<15%)*	-25.35
ELECTRICAL COND.		1530	TDS/EC RATIO (0.65+/-0.10)	0.72

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network, Inc.

DATE: 10-23-97

ION BALANCE

AEN ACCESSION NUMBER: 70928407
SAMPLE IDENTIFICATION: 709348-07
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS $CaCO_3$)	65.000	0.02000	1.30000	
CHLORIDE	43000.000	0.02821	1213.03000	
FLUORIDE	1.470	0.05264	0.07738	
NITRATE AS N (NO_3(NO_3-N X 4.43))	NA	0.01613	0.00000	
SiO_3 (SILICON X 2.71)	NA	0.02629	0.00000	
SULFATE	1000.000	0.02082	20.82000	
		TOTAL ANIONS		1235.227

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	312.000	0.04990	15.5688	
POTASSIUM	155.000	0.02558	3.96490	
MAGNESIUM	297.000	0.08229	24.44013	
SODIUM	22800.000	0.04350	991.80000	
		TOTAL CATIONS		1035.774

		%RPD (<10%)*		17.57
TOTAL ANIONS/CATIONS	(CALCULATED)	67604.470		
TOTAL DISSOLVED SOLIDS	(ANALYZED)	70000	%RPD (<15%)*	-3.48
ELECTRICAL COND.		132000	TDS/EC RATIO (0.65+/-0.10)	0.53

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.

American Environmental Network (NM), Inc.
Albuquerque • Phoenix • Pensacola • Portland • Pleasant Hills • Columbia

CHAIN OF CUSTODY

DATE: 9-18-97 PAGE: 1 OF 1

AEN LAB I.D. 709348

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: MARK ASHLEY

COMPANY: NMOCD
ADDRESS: 2040 S. PACHECO
SANTA FE, NM 87505
PHONE: (505) 827-7155
FAX: (505) 827-8177

BILL TO: SAME
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	NUMBER OF CONTAINERS
9715090725 (WASSER)	9-15-97	7:25AM	H_2O	-01	1
970915/015 (KEN #1)	9-15-97	10:15AM	"	-02	1
9709151045 (KEN #2)	9-15-97	10:45AM	"	-03	1
9709151100 (RANCH)	9-15-97	11:00AM	"	-04	1
9709160940 (CONOCO #3)	9-16-97	9:40AM	"	-05	1
9709160950 (CONOCO #1)	9-16-97	9:50AM	"	-06	1
9709161515 (BRINE #4)	9-16-97	3:15PM	"	-07	1

Petroleum Hydrocarbons (418.1) TRPH
(MOD.8015) Diesel/Direct/Inject
(M8015) Gas/Purge & Trap
Gasoline/BTEX & MTBE (M8015/8020)
BTXE/MTBE (8020)
BTEX & Chlorinated Aromatics (602/8020)
BTEX/MTBE/EDC & EDB (8020/8010/Short)
Chlorinated Hydrocarbons (601/8010)
504 EDB ☐ / DBCP ☐
Polynuclear Aromatics (610/8310)
Volatile Organics (624/8240) GC/MS
Volatile Organics (8260) GC/MS
Pesticides/PCB (608/8080)
Herbicides (615/8150)
Base/Neutral/Acid Compounds GC/MS (625/8270)
General Chemistry: TDS #25
Priority Pollutant Metals (13)
Target Analyte List Metals (23)
RCRA Metals (8)
RCRA Metals by TCLP (Method 1311)
Metals:

PROJECT INFORMATION	
PROJ. NO.:	
PROJ. NAME:	Brine Wells
P.O. NO.:	
SHIPPED VIA:	

SAMPLE RECEIPT	
NO. CONTAINERS	7
CUSTODY SEALS	Y/N/NA
RECEIVED INTACT	yes
BLUE ICE/ICE	20

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

From Field

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Time: 3:45PM	Signature Time
Printed Name: MARK ASHLEY Date: 9-18-97	Printed Name. Date.
Company: NMOCD	Company:
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Time: 3:45
Printed Name: Date:	Printed Name: Brian Price Date: 9-18-97
Company:	American Enviromental Network (NM), Inc.

DISTRIBUTION: White, Canary - AEN Pink - ORIGINATOR

American Environmental Network
Albuquerque, New Mexico

Interlab Chain of Custody

DATE 9-18 PAGE 1 OF

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL

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

CLIENT PROJECT MANAGER:

Kim McNeill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)		Cation/Anion Balance (see Attached List)	TOX	TOC	Gen Chemistry		Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 (TCLP 1311)			TCLP	Gross Alpha/Beta				NUMBER OF CONTAINERS
709348-01	9-15-97	7:25	AQ	1						X																						1
-02		10:15		2						X																						1
-03		10:45		3						X																						1
-04		11:00		4						X																						1
-05	9-16-97	9:40		5						X																						1
-06		9:50		6						X																						1
-07		3:15		7						X																						1

PROJECT INFORMATION

PROJECT NUMBER: 709348
PROJECT NAME: NMOCD
QC LEVEL: (STD) IV
QC REQUIRED: MS MSD BLANK
TAT (STANDARD) RUSH

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS: 7
CHAIN OF CUSTODY SEALS: NA
INTACT? Y
RECEIVED GOOD COND./COLD: Blue
LAB NUMBER: 709284

SAMPLES SENT TO:

SAN DIEGO
Paragon
RENTON
PENSACOLA
PORTLAND
PHOENIX X

RELINQUISHED BY: 1.

Signature: Time: 1700
Printed Name: Brian Price Date: 9-18-97
Albuquerque NM

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2

Signature Time
Printed Name Date
Company

RECEIVED BY: (LAB) 2.

Signature: Time: 0853
Printed Name: Melanie Giangrizzo Date: 9/19/97
Company: AENPHX

DUE DATE: 10-1-97
RUSH SURCHARGE:
CLIENT DISCOUNT:
SPECIAL CERTIFICATION REQUIRED: YES NO

Rechecked by: BP

American Environmental Network (NM), Inc.
Albuquerque • Phoenix • Pensacola • Portland • Pleasant Hills • Columbia

CHAIN OF CUSTODY

DATE: 9-18-97 PAGE: 1 OF 1

AEN LAB I.D. 709348

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: MARK ASHLEY

COMPANY: NMOCD
ADDRESS: 2040 S. PACHECO
SANTA FE, NM 87505
PHONE: (505) 827-7155
FAX: (505) 827-8177

BILL TO: SAME
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	General Chemistry: TDS #25	NUMBER OF CONTAINERS
9715090725 (WASSER)	9-15-97	7:25AM	H_2O	-01	X	1
9709151015 (KEN #1)	9-15-97	10:15AM	"	-02	X	1
9709151045 (KEN #2)	9-15-97	10:45AM	"	-03	X	1
9709151100 (RANCH)	9-15-97	11:00AM	"	-04	X	1
9709160940 (CONOCO #3)	9-16-97	9:40AM	"	-05	X	1
9709160950 (CONOCO #1)	9-16-97	9:50AM	"	-06	X	1
9709161515 (BRINE #4)	9-16-97	3:15PM	"	-07	X	1

Petroleum Hydrocarbons (418.1) TRPH
(MOD.8015) Diesel/Direct/Inject
(M8015) Gas/Purge & Trap
Gasoline/BTEX & MTBE (M8015/8020)
BTXE/MTBE (8020)
BTEX & Chlorinated Aromatics (602/8020)
BTEX/MTBE/EDC & EDB (8020/8010/Short)
Chlorinated Hydrocarbons (601/8010)
504 EDB☐ / DBCP☐
Polynuclear Aromatics (610/8310)
Volatile Organics (624/8240) GC/MS
Volatile Organics (8260) GC/MS
Pesticides/PCB (608/8080)
Herbicides (615/8150)
Base Neutral Acid Compounds GC/MS (625/8270)
Priority Pollutant Metals (13)
Target Analyte List Metals (23)
RCRA Metals (8)
RCRA Metals by TCLP Method 1311)
Metals

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Brine Wells
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	7
CUSTODY SEALS	Y/N/NA
RECEIVED INTACT	yes
BLUE ICE/ICE	ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

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

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

From Field

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Mark Ashley Time: 3:45PM	Signature: Time:
Printed Name: MARK ASHLEY Date: 9-18-97	Printed Name: Date:
Company: NMOCD	Company:
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Time: 3:45
Printed Name: Date:	Printed Name: Date: Brian Price 9-18-97
Company:	American Environmental Network (NM), Inc.

American Environmental Network (N.M.), Inc.
Albuquerque Office: 2709-D Pan American Fwy., NE
Albuquerque, NM 87107
(505) 344-3777
Remit To: American Environmental Network (N.M.), Inc.
P.O. Box 5878
Boston, MA 02206

American Environmental Network, Inc.

Bill To: N.M. Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Client #: 810-134

OCT 29 1997

Date	Invoice
10/24/97	76920

PROJ. NAME: BRINE WELLS

Original
BALANCE DUE: 1,120.00

PO Number	Terms	Project
	Net 30	AEN ALB-810

Quantity	Description	Rate	Amount
7	Cation/Anion Balance (ITEM #25)	160.00	1,120.00

OK MA
10-29-97

Accession #:709348
Authorized by:MARK ASHLEY

TOTAL: 1,120.00

A finance charge of 1½% will be charged on balances 30 days past due
DISTRIBUTION: White-Customer, Yellow-File, Pink-Accounting

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE

PHONE: 505-675-2356
505-675-2357

CROSSROADS, NEW MEXICO 88114

August 24, 1998

Roger Anderson
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Kenneth Tank Service Brine Production Facility BW-13
Lea County, New Mexico

Dear Mr. Anderson:

This letter is in reponse to the letter received from the New Mexico Energy, Minerals, and Natural Resources Department dated May 28, 1998. In this letter the Oil Conservation Division (OCD) requested additional information concerning the brine production facility. The requested information is included with this letter:

1. Sketched location of ground water wells within a one mile radius of the brine well.

2. Cation/anion chemical analysis of the wells within a one mile radius.

3. Discussion of the site hydrogeology which includes ground water depths and gradient maps.

We feel that the variations in the water quality is natural for this area. We recommend that no further action be required on the question of ground water contamination by our brine facility. We respect the importance of protecting our water supply and appreciate you working with us on this matter.

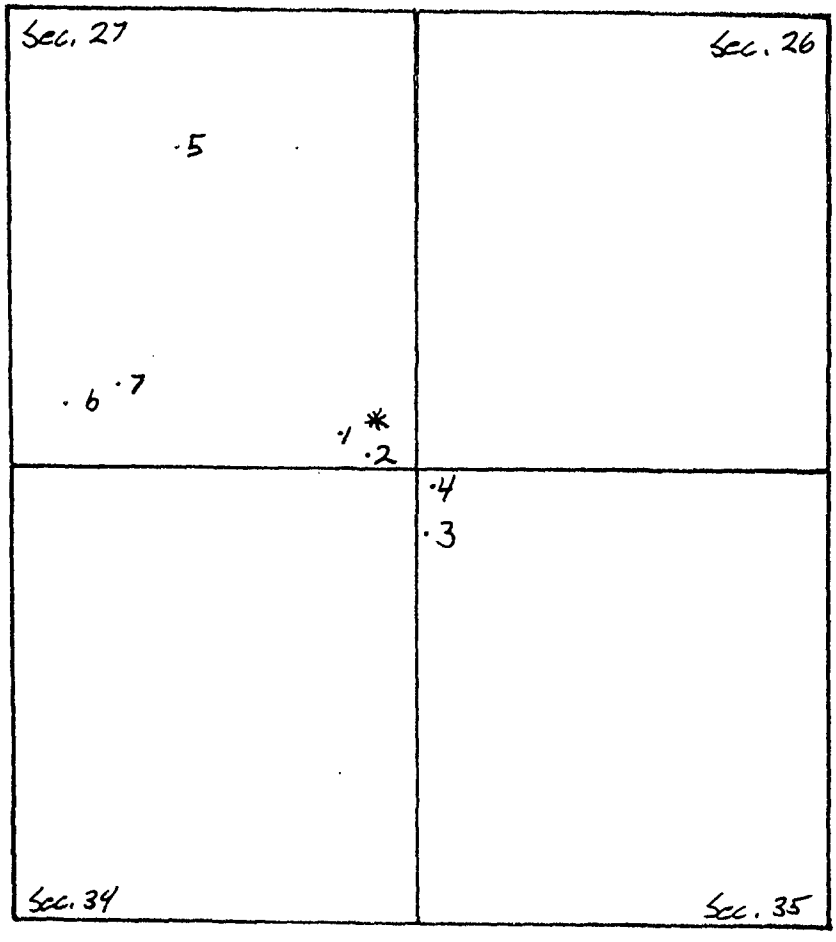
Sincerely,

Lou Ann Stearns

Lou Ann Stearns

Enclosures

Ground water wells within 1 mile radius of brine well:



* Brine Well: Sec. 27, T9S, R35E (SE1/4, SE1/4, SE1/4)
1) West well-water station
2) South well-water station
3) East mill
4) East submersible
5) Bonds submersible
6) CWK submersible
7) CWK mill

#1

Pro-Kem, Inc.

WATER ANALYSIS REPORT

SAMPLE

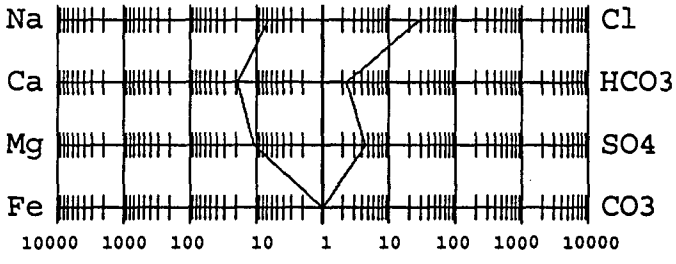
Oil Co. : **K T S**
Lease : **West Well**
Well No.: **Fresh Water**
Lab No. :

Sample Loc. :
Date Analyzed: **08-June-1998**
Date Sampled : **26-May-1998**

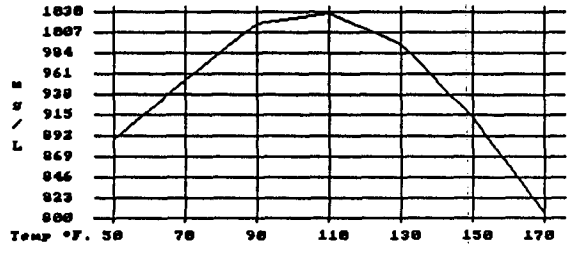
ANALYSIS

1.	pH			7.090	
2.	Specific Gravity 60/60 F.			1.008	
3.	$CaCO_3$ Saturation Index	@ 80 F.		-0.047	
		@ 140 F.		+0.723	
	Dissolved Gasses			**MG/L**	**EQ. WT.** ***MEQ/L**
4.	Hydrogen Sulfide			Not Present	
5.	Carbon Dioxide			Not Determined	
6.	Dissolved Oxygen			Not Determined	
	Cations				
7.	Calcium	(Ca^{++})		365	/ 20.1 = 18.16
8.	Magnesium	(Mg^{++})		126	/ 12.2 = 10.33
9.	Sodium	(Na^{+})	(Calculated)	144	/ 23.0 = 6.26
10.	Barium	(Ba^{++})		0	/ 68.7 = 0.00
	Anions				
11.	Hydroxyl	(OH^{-})		0	/ 17.0 = 0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 = 0.00
13.	Bicarbonate	(HCO_3^{-})		137	/ 61.1 = 2.24
14.	Sulfate	($SO_4^{=}$)		210	/ 48.8 = 4.30
15.	Chloride	(Cl^{-})		1,000	/ 35.5 = 28.17
16.	Total Dissolved Solids			1,982	
17.	Total Iron (Fe)			3	/ 18.2 = 0.14
18.	Total Hardness As $CaCO_3$			1,431	
19.	Resistivity @ 75 F. (Calculated)			3.427 /cm.	

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.24	182
$CaSO_4$	68.07	4.30	293
$CaCl_2$	55.50	11.61	645
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	10.33	492
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	6.23	364

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc.

WATER ANALYSIS REPORT

#2

SAMPLE

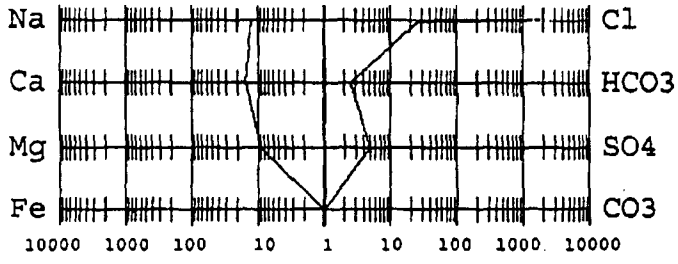
Oil Co. : **N/A**
Lease : **Brine Station**
Well No.: **South Fresh Water**
Lab No. :

Sample Loc. :
Date Analyzed: **20-July-1998**
Date Sampled : **13-July-1998**

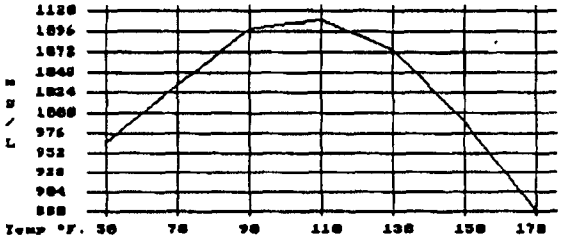
ANALYSIS

1.	pH			7.170	
2.	Specific Gravity 60/60 F.			1.008	
3.	$CaCO_3$ Saturation Index	@ 80 F.		+0.164	
		@ 140 F.		+0.864	
	Dissolved Gasses			**MG/L**	**EQ. WT.** ***MEQ/L**
4.	Hydrogen Sulfide			Not Present	
5.	Carbon Dioxide			Not Determined	
6.	Dissolved Oxygen			Not Determined	
	Cations				
7.	Calcium	(Ca^{++})		292	/ 20.1 = 14.53
8.	Magnesium	(Mg^{++})		107	/ 12.2 = 8.77
9.	Sodium	(Na^{+})	(Calculated)	274	/ 23.0 = 11.91
10.	Barium	(Ba^{++})		Below 10	
	Anions				
11.	Hydroxyl	(OH^{-})		0	/ 17.0 = 0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 = 0.00
13.	Bicarbonate	(HCO_3^{-})		146	/ 61.1 = 2.39
14.	Sulfate	($SO_4^{=}$)		225	/ 48.8 = 4.61
15.	Chloride	(Cl^{-})		1,000	/ 35.5 = 28.17
16.	Total Dissolved Solids			2,044	
17.	Total Iron (Fe)			3	/ 18.2 = 0.14
18.	Total Hardness As $CaCO_3$			1,171	
19.	Resistivity @ 75 F. (Calculated)			3.385 /cm.	

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.39	194
$CaSO_4$	68.07	4.61	314
$CaCl_2$	55.50	7.53	418
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	8.77	418
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	11.87	694

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc.

#3

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : **N/A**
Lease : **Mill**
Well No.: **East Fresh Water**
Lab No. :

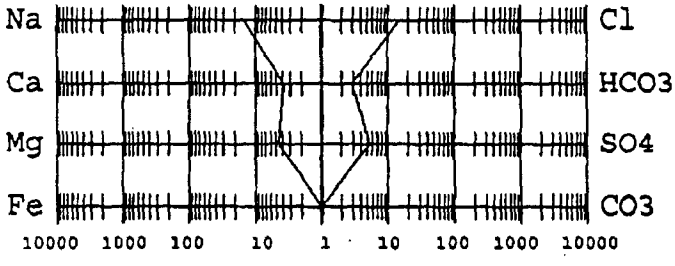
Sample Loc. :
Date Analyzed: **20-July-1998**
Date Sampled : **13-July-1998**

ANALYSIS

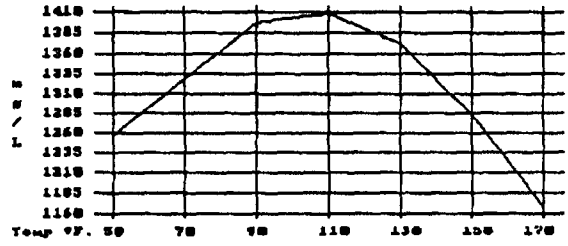
1.	pH	7.610
2.	Specific Gravity 60/60 F.	1.003
3.	$CaCO_3$ Saturation Index @ 80 F.	+0.062
	@ 140 F.	+0.762

	Dissolved Gasses			MG/L	EQ. WT.	*MEQ/L
4.	Hydrogen Sulfide			Not Present		
5.	Carbon Dioxide			Not Determined		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca^{++})		73	/ 20.1 =	3.63
8.	Magnesium	(Mg^{++})		51	/ 12.2 =	4.18
9.	Sodium	(Na^{+})	(Calculated)	326	/ 23.0 =	14.17
10.	Barium	(Ba^{++})		Below 10		
	Anions					
11.	Hydroxyl	(OH^{-})		0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})		166	/ 61.1 =	2.72
14.	Sulfate	($SO_4^{=}$)		250	/ 48.8 =	5.12
15.	Chloride	(Cl^{-})		500	/ 35.5 =	14.08
16.	Total Dissolved Solids			1,366		
17.	Total Iron (Fe)			2	/ 18.2 =	0.11
18.	Total Hardness As $CaCO_3$			390		
19.	Resistivity @ 75 F. (Calculated)			4.616 /cm.		

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.72	220
$CaSO_4$	68.07	0.91	62
$CaCl_2$	55.50	0.00	0
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	4.18	252
$MgCL_2$	47.62	0.00	0
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.03	2
NaCl	58.46	14.08	823

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc.

#4

WATER ANALYSIS REPORT

SAMPLE

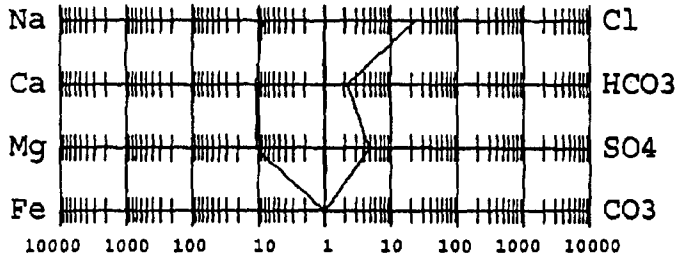
Oil Co. : N/A
Lease : Submersible
Well No.: East Fresh Water
Lab No. :

Sample Loc. :
Date Analyzed: 20-July-1998
Date Sampled : 13-July-1998

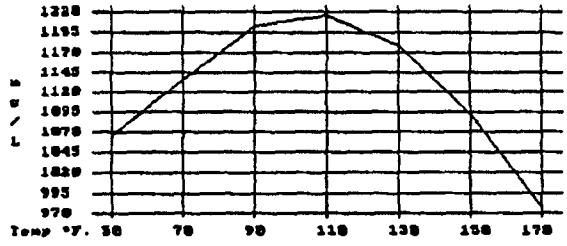
ANALYSIS

1.	pH			7.290	
2.	Specific Gravity 60/60 F.			1.005	
3.	$CaCO_3$ Saturation Index		@ 80 F.	+0.077	
			@ 140 F.	+0.777	
	Dissolved Gasses			**MG/L**	**EQ. WT.** ***MEQ/L**
4.	Hydrogen Sulfide			Not Present	
5.	Carbon Dioxide			Not Determined	
6.	Dissolved Oxygen			Not Determined	
	Cations				
7.	Calcium	(Ca^{++})		208	/ 20.1 = 10.35
8.	Magnesium	(Mg^{++})		126	/ 12.2 = 10.33
9.	Sodium	(Na^{+})	(Calculated)	195	/ 23.0 = 8.48
10.	Barium	(Ba^{++})		Below 10	
	Anions				
11.	Hydroxyl	(OH^{-})		0	/ 17.0 = 0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 = 0.00
13.	Bicarbonate	(HCO_3^{-})		127	/ 61.1 = 2.08
14.	Sulfate	($SO_4^{=}$)		220	/ 48.8 = 4.51
15.	Chloride	(Cl^{-})		800	/ 35.5 = 22.54
16.	Total Dissolved Solids			1,676	
17.	Total Iron (Fe)			2	/ 18.2 = 0.11
18.	Total Hardness As $CaCO_3$			1,041	
19.	Resistivity @ 75 F. (Calculated)			3.851 /cm.	

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.08	168
$CaSO_4$	68.07	4.51	307
$CaCl_2$	55.50	3.76	209
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	10.33	492
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	8.45	494

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc.

WATER ANALYSIS REPORT

#5

SAMPLE

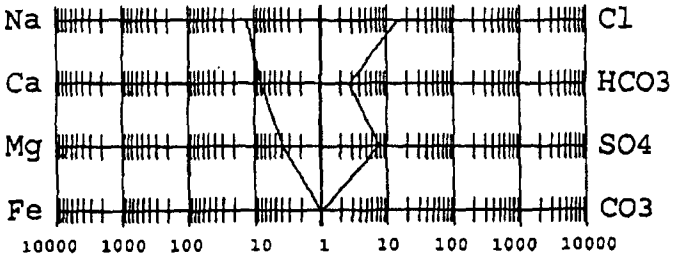
Oil Co. : N/A
Lease : Bonds
Well No.: Fresh Water
Lab No. :

Sample Loc. :
Date Analyzed: 20-July-1998
Date Sampled : 13-July-1998

ANALYSIS

1.	pH		7.480		
2.	Specific Gravity 60/60 F.		1.003		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+0.245		
		@ 140 F.	+0.945		
	Dissolved Gasses		**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide		Not Present		
5.	Carbon Dioxide		Not Determined		
6.	Dissolved Oxygen		Not Determined		
	Cations				
7.	Calcium	(Ca^{++})	156	/ 20.1 =	7.76
8.	Magnesium	(Mg^{++})	44	/ 12.2 =	3.61
9.	Sodium	(Na^{+}) (Calculated)	290	/ 23.0 =	12.61
10.	Barium	(Ba^{++})	Not Determined		
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	161	/ 61.1 =	2.64
14.	Sulfate	($SO_4^{=}$)	350	/ 48.8 =	7.17
15.	Chloride	(Cl^{-})	500	/ 35.5 =	14.08
16.	Total Dissolved Solids		1,501		
17.	Total Iron (Fe)		2	/ 18.2 =	0.11
18.	Total Hardness As $CaCO_3$		573		
19.	Resistivity @ 75 F. (Calculated)		4.457 /cm.		

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.64	214
$CaSO_4$	68.07	5.13	349
$CaCl_2$	55.50	0.00	0
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	2.05	123
$MgCL_2$	47.62	1.56	74
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	12.52	732

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc

WATER ANALYSIS REPORT

#6

SAMPLE

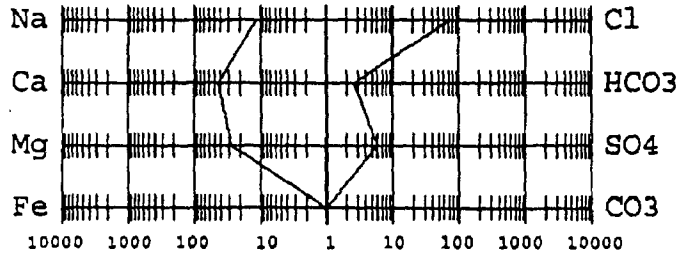
Oil Co. : **N/A**
Lease : **Submersible**
Well No.: **CWK Fresh Water**
Lab No. :

Sample Loc. :
Date Analyzed: **20-July-1998**
Date Sampled : **13-July-1998**

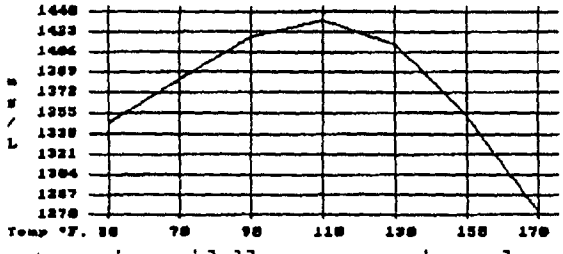
ANALYSIS

1.	pH			7.050	
2.	Specific Gravity 60/60 F.			1.003	
3.	$CaCO_3$ Saturation Index		@ 80 F.	+0.188	
			@ 140 F.	+0.998	
	Dissolved Gasses			**MG/L**	**EQ. WT.** ***MEQ/L**
4.	Hydrogen Sulfide			**Not Present**	
5.	Carbon Dioxide			**Not Determined**	
6.	Dissolved Oxygen			**Not Determined**	
	Cations				
7.	Calcium	(Ca^{++})		834	/ 20.1 = 41.49
8.	Magnesium	(Mg^{++})		316	/ 12.2 = 25.90
9.	Sodium	(Na^{+})	(Calculated)	254	/ 23.0 = 11.04
10.	Barium	(Ba^{++})		Below 10	
	Anions				
11.	Hydroxyl	(OH^{-})		0	/ 17.0 = 0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 = 0.00
13.	Bicarbonate	(HCO_3^{-})		156	/ 61.1 = 2.55
14.	Sulfate	($SO_4^{=}$)		270	/ 48.8 = 5.53
15.	Chloride	(Cl^{-})		2,499	/ 35.5 = 70.39
16.	Total Dissolved Solids			4,329	
17.	Total Iron (Fe)			1	/ 18.2 = 0.05
18.	Total Hardness As $CaCO_3$			3,383	
19.	Resistivity @ 75 F. (Calculated)			1.349 /cm.	

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.55	207
$CaSO_4$	68.07	5.53	377
$CaCl_2$	55.50	33.41	1,854
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	25.90	1,233
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	11.09	648

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Pro-Kem, Inc.

#7

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : N/A
Lease : Mill
Well No.: CWK Fesh Water
Lab No. :

Sample Loc. :
Date Analyzed: 20-July-1998
Date Sampled : 13-July-1998

ANALYSIS

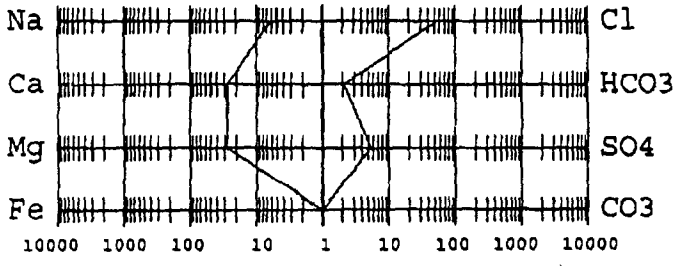
1.	pH	7.090
2.	Specific Gravity 60/60 F.	1.008
3.	$CaCO_3$ Saturation Index @ 80 F.	+0.058
	@ 140 F.	+0.828

	Dissolved Gasses	MG/L	EQ. WT.	*MEQ/L
4.	Hydrogen Sulfide	Not Present		
5.	Carbon Dioxide	Not Determined		
6.	Dissolved Oxygen	Not Determined		

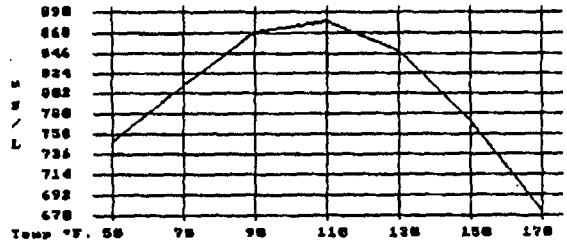
	Cations			MG/L	EQ. WT.	*MEQ/L
7.	Calcium	(Ca^{++})		521	/ 20.1 =	25.92
8.	Magnesium	(Mg^{++})		316	/ 12.2 =	25.90
9.	Sodium	(Na^{+})	(Calculated)	135	/ 23.0 =	5.87
10.	Barium	(Ba^{++})		Below 10		

	Anions		MG/L	EQ. WT.	*MEQ/L
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	122	/ 61.1 =	2.00
14.	Sulfate	($SO_4^{=}$)	245	/ 48.8 =	5.02
15.	Chloride	(Cl^{-})	1,800	/ 35.5 =	50.70
16.	Total Dissolved Solids		3,139		
17.	Total Iron (Fe)		3	/ 18.2 =	0.14
18.	Total Hardness As $CaCO_3$		2,602		
19.	Resistivity @ 75 F. (Calculated)		2.100 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.00	162
$CaSO_4$	68.07	5.02	342
$CaCl_2$	55.50	18.90	1,049
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	25.90	1,233
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	5.90	345

*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

Discussion of Site Hydrogeology. Taken from Sec. 4 of 7

DISCHARGE PLAN FOR KENNETH TANK SERVICE BRINE PRODUCTION FACILITY CROSSROADS, NEW MEXICO

August 6, 1984

Prepared for:

C.K. Kinsolving
Kenneth Tank Service
Crossroads, New Mexico
88114

Prepared by:

Geoscience Consultants, Ltd.
500 Copper Ave NW
Suite 220
Albuquerque, New Mexico
87102

4.0 SITE HYDROGEOLOGY

4.1 WATER BEARING ROCKS

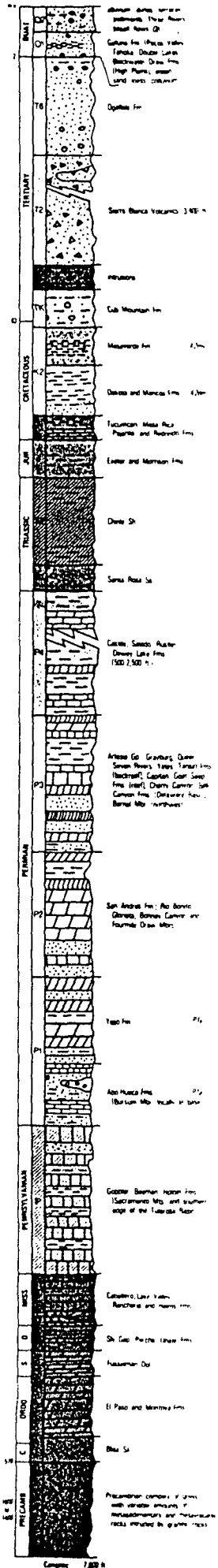
The brine facility lies on the northern edge of the Permian Basin in the High Plains physiographic province. Figure 4-1 shows the stratigraphy of the eastern High Plains of New Mexico. Like most sedimentary basins, much of the thick sequence of limestones, sandstones shales and evaporites do not yield usable ground water. A summary of the water bearing rocks between the injection zone and the ground surface immediately below the injection zone is presented below.

4.1.1 Ogallala Formation

A thin veneer of quaternary alluvial and aeolian deposits overlie the Ogallala Formation in the Crossroads area (Figure 4-2). The Ogallala consists of unconsolidated fine sand with minor amounts of clay, coarse sand, caliche and gravel. Although the unit is the principal aquifer of the High Plains and yields good quality water in much of northern Lea County; the quality deteriorates significantly near saline playa lakes (Figure 4-3). The unit is approximately 130 feet thick at the site (Figure 4-5, Figure 4-6 and Appendix B).

4.1.2 Tucumcari Shale

Underlying the Ogallala is the basal sand unit of the Tucumcari Shale. Post Cretaceous erosion has removed most of the shale and the remainder of this water-producing unit is only 10-20 feet thick at the site (see Appendix B). Despite minimal saturated thickness in the area, the basal sand is capable of producing sufficient water, of adequate quality, for the brine



Ogallala overlain by thin veneer of alluvium

Not present in site area

Exeter and Morrison not present

Santa Rosa not observed in subsurface

GUADALUPE SERIES

Figure 4-1 Stratigraphic column of eastern High Plains of New Mexico (NMGS, 1983). Map symbols for Figure 4-3 shown in left column.

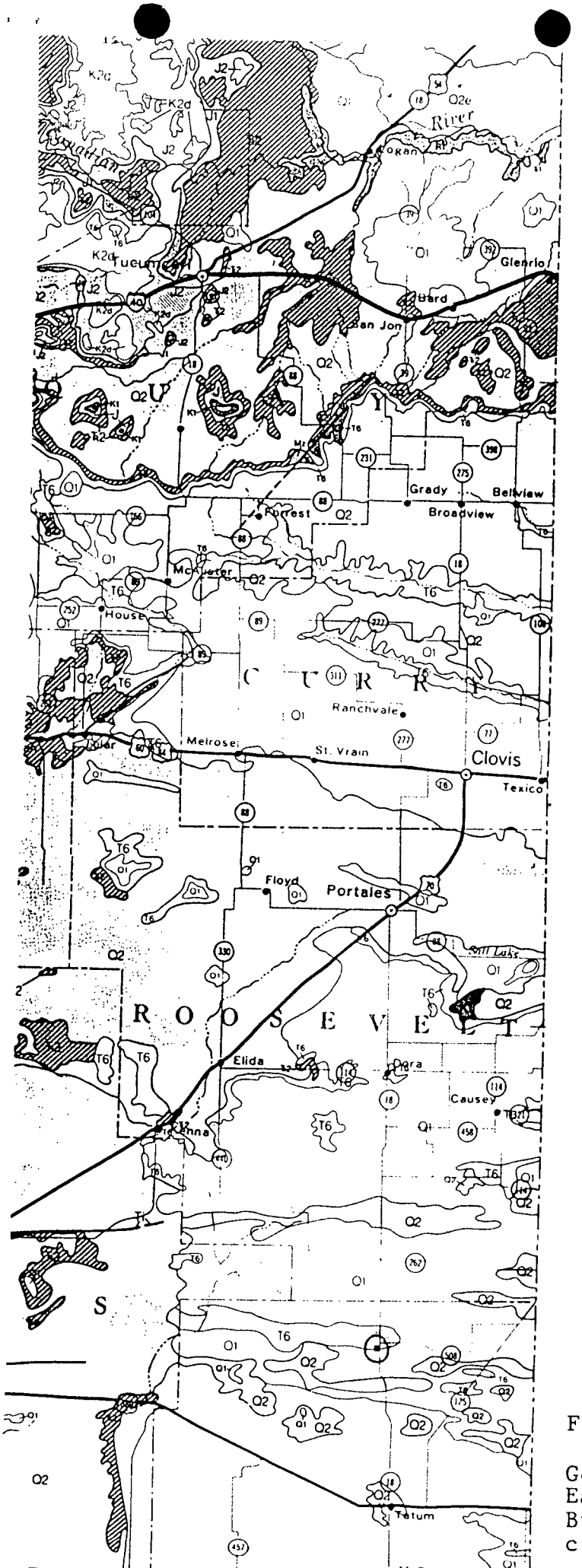


Figure 4-2

Geologic Map of Eastern High Plains. Brine facility circled (NMGS, 1983)

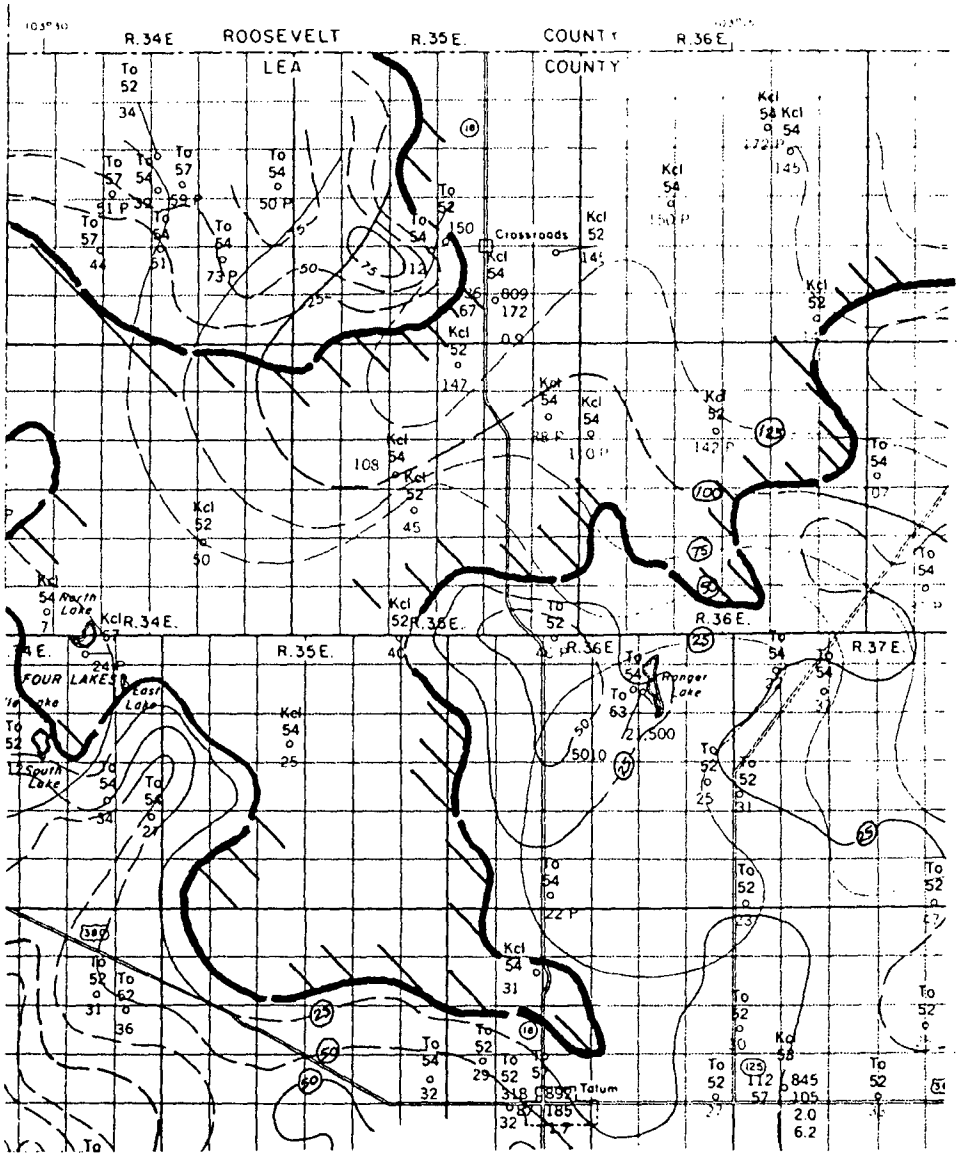


Figure 4-3 Depth to water and water quality of Northern portion of Lea County (Ash, 1963). Legend on Figure 4-4.

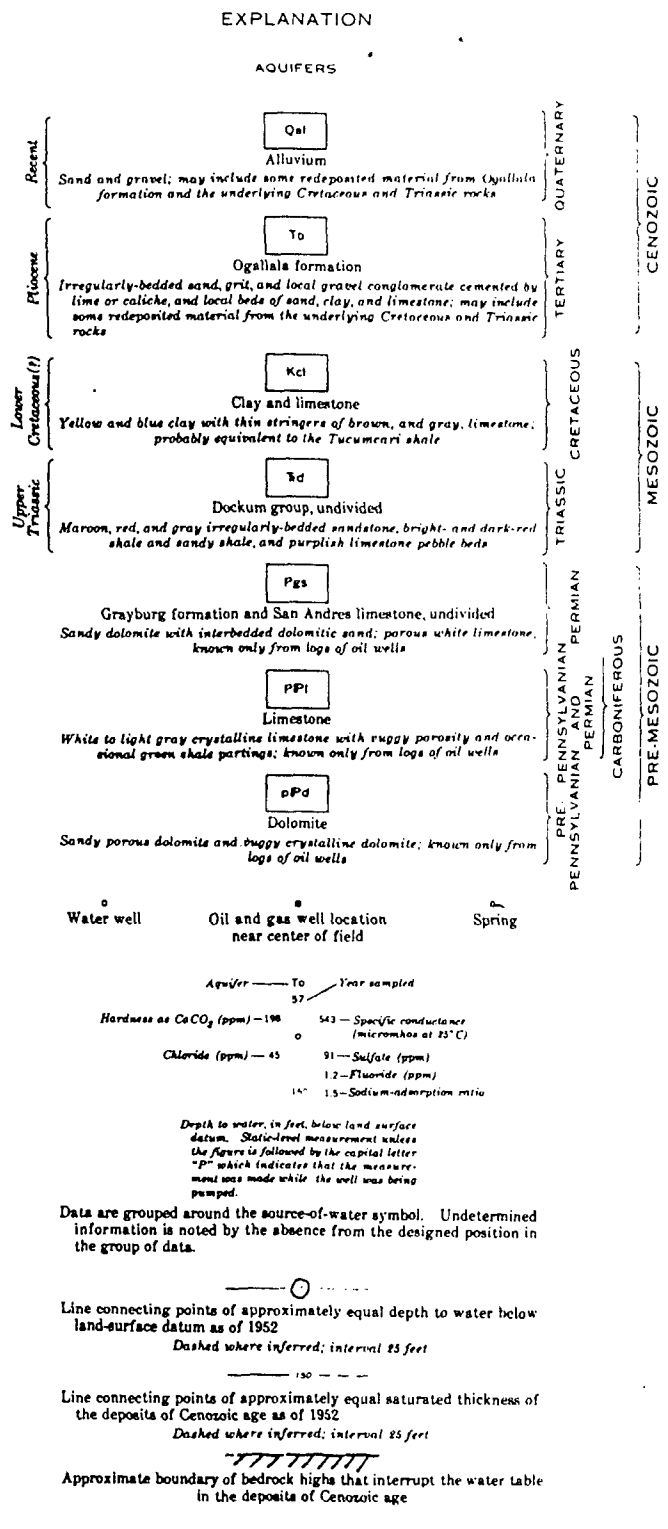


Figure 4-4 Legend for Figure 4-3.

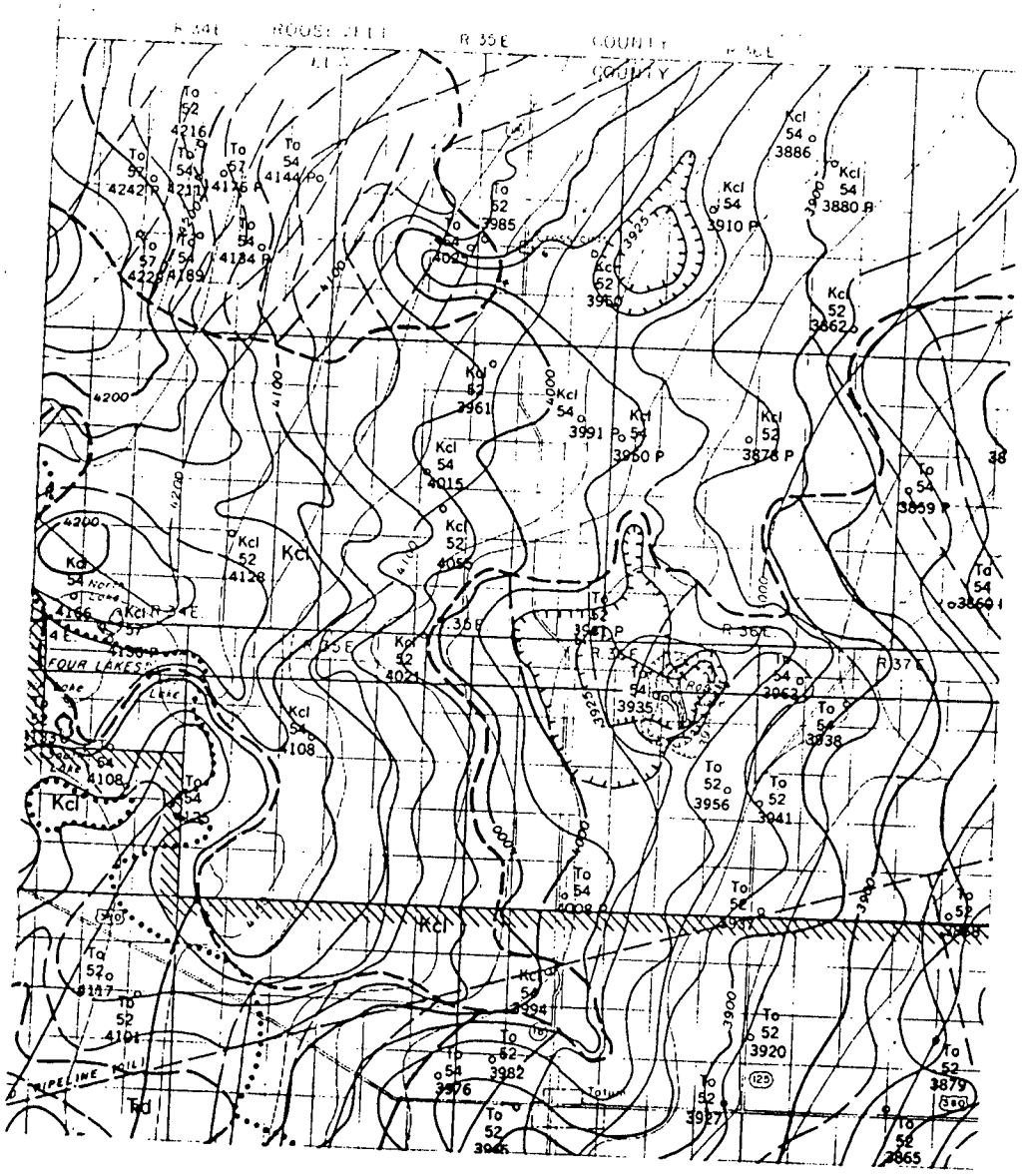


Figure 4-5 Map of Northern Lea County showing topography and elevation of post-Mesozoic erosional surface and water quality (Ash 1963). Legend is Figure .4-6.

EXPLANATION

AQUIFERS

Recent	Qal Alluvium *Sand and gravel; may include some redeposited material from Ogallala formation and the underlying Cretaceous and Triassic rocks*	QUATERNARY		CENOZOIC
Pliocene	To Ogallala formation *Irregularly-bedded sand, grit, and local gravel conglomerate cemented by lime or caliche, and local beds of sand, clay, and limestone; may include some redeposited material from the underlying Cretaceous and Triassic rocks*	TERTIARY		
Lower Cretaceous (?)	Kcl Clay and limestone *Yellow and blue clay with thin stringers of brown, and gray, limestone; probably equivalent to the Tucumcari shale*	CRETACEOUS		MESOZOIC
Upper Triassic	Trd Dockum group, undivided *Maroon, red, and gray irregularly-bedded sandstone, bright- and dark-red shale and sandy shale, and purplish limestone pebble beds*	TRIASSIC		

GEOLOGIC UNITS DIRECTLY BELOW THE ROCKS OF CENOZOIC AGE

Lower Cretaceous (?)	Kcl Clay and limestone *Yellow and blue clay with thin stringers of brown and gray, limestone; probably equivalent to the Tucumcari shale*	CRETACEOUS	MESOZOIC
Upper Triassic	Trd Dockum group, undivided *Maroon, red, and gray irregularly-bedded sandstone, bright- and dark-red shale and sandy shale, and purplish limestone pebble bed*	TRIASSIC	

Spring

Water well

Aquifer — To
Year sampled — 52
3494

Altitude of water level, in feet above mean sea level. Static-level measurement unless the figure is followed by the capital letter "P" which indicates that the measurement was made while the well was being pumped.

Data are grouped around the source-of-water symbol. Undetermined information is noted by the absence from the designated position in the group of data.

4025

Contour drawn on the water table in the deposits of Cenozoic age as of November-December, 1952

Dashed where approximately located; contour interval 25 feet; datum is mean sea level

Approximate boundary of bedrock highs that interrupt the water table in the deposits of Cenozoic age

Contour drawn on the post-Mesozoic erosional surface

Dashed where approximately located; contour interval 25 feet; datum is mean sea level

Buried contact

Area included in declared Underground Water Basin, prior to Oct. 1, 1952

Area added to declared Basin on Oct. 1, 1952

Figure 4-6 Explanation for Figure 4-5.

station and scattered stock wells.

The hydraulic characteristics of this aquifer are reported by ranchers and drillers to be quite variable. The location of ranch houses in the area often corresponds to the only place on the property with available ground water. The fresh water wells at the brine station are one of the few wells in the area capable of supporting large withdrawals.

4.1.3 Dockham Group

The Triassic red beds of the Dockham Group (Chinle Formation equivalent) and the anhydrites of the Rustler Formation underlie the Cretaceous Section. The upper 1,200 feet of the Dockam Group is predominantly reddish shale but does include minor amounts of sandstone conglomerate and limestone. The lack of porous formations is evident by the electric log cross section through the site (Figure 4-7 and see Appendix B). Porous units which are penetrated in area oil tests (eg 525 foot depth in Magnolia Glenn well) are not continuous throughout the area. This is typical of the alluvial deposits that comprise the Chinle Formation.

The evaporites of the Rustler Formation are not water bearing. The anhydrites do form an excellent seal above the underlying injection zone. Not only are these evaporite units virtually impermeable but any fractures or conduits which may have formed over time tend to "heal" by recrystallization of the anhydrite in fractures.

Both the anhydrite and the overlying rocks are continuous throughout northern Lea County.

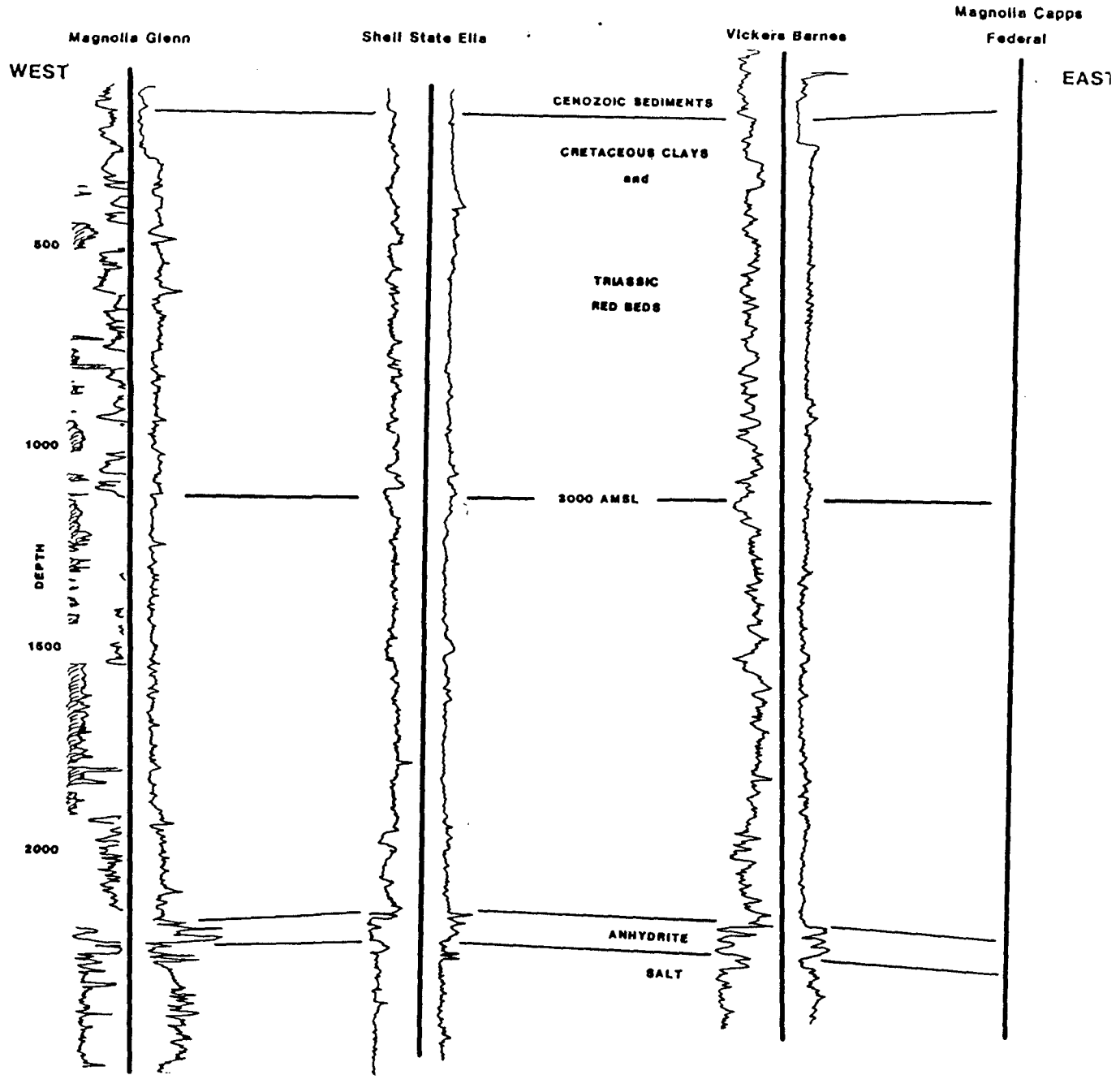


Figure 4-7 Geophysical log cross-section between ground surface and injection zone. Gamma-ray trace on left, neutron trace on right. Large-scale logs are in Appendix B with map showing location of cross section.

4.1.4 Salado Formation

The injection zone of the brine well comprises all of the 500 feet Salado Formation (Figure 4-7). The Salado consists of inter-bedded halite, polyhalite, anhydrite and minor amounts of other evaporites.

The only fluid known to be present in the Salado in this area is the saturated brine in the solution cavity surrounding the well.

4.1.5 Guadalupe Series

Permian marine limestones, shales, evaporites and sandstones underlie the Salado. These units produce much of the oil in the northern and western Permian Basin. An analysis of formation water produced from the San Andres Formation is shown in Figure 4-8. As is evident, these units contain water far in excess of 10,000 mg/1 TDS.

4.2 MOVEMENT OF GROUND WATER

It is apparent from the previous discussion that a dependable supply of usable ground water exists only in the basal sandstone of the Tucumcari Shale. Ground water may be present in discontinuous sandstone units of the Chinle Formation; however, potential Triassic aquifers at the site (if they were encountered) are at depths which precludes development. The overlying Cenozoic sediments which are good aquifers in some portions of Northern Lea County are not saturated in the site area.

Figure 4-9 shows the water table elevation in the only potential water bearing zone (Tucumcari Shale). In the site

ROSWELL GEOLOGICAL SOCIETY SYMPOSIUM

Data prepared by: Larry D. Rider
Affiliation: Mobil Oil Company
Date: July 22, 1960

Field Name: Crossroads Slaughter San Andres
Location: Sec. 20, 29, 30, 31, T. 9 S., R. 36 E.
County & State: Lea Co., N. Mex.

DISCOVERY WELL: Magnolia #1 Santa Fe "A" COMPLETION DATE: Feb. 18, 1948

PAY ZONE: San Andres, 4,837 feet. Fine crystalline, brown dolomite with variable zones of pinpoint to intercrystalline porosity.

NATURE OF PRODUCING ZONE WATER: Resistivity: .04 ohm-meters @ 100 °F.

	Total Solids	Na+K	Ca	Mg	Fe	SO_4	Cl	CO_3	HCO_3	OH	H_2S
ppm	256626	90015	6202	2611	1	1115	156550		114		

INITIAL FIELD PRESSURE:

TYPE OF DRIVE: Water

NORMAL COMPLETION PRACTICES:

Figure 4-8 Analysis of formation water in San Andres Formation (Guadalupe Series) from Crossroads oil field (Roswell Geological Society, 1960)

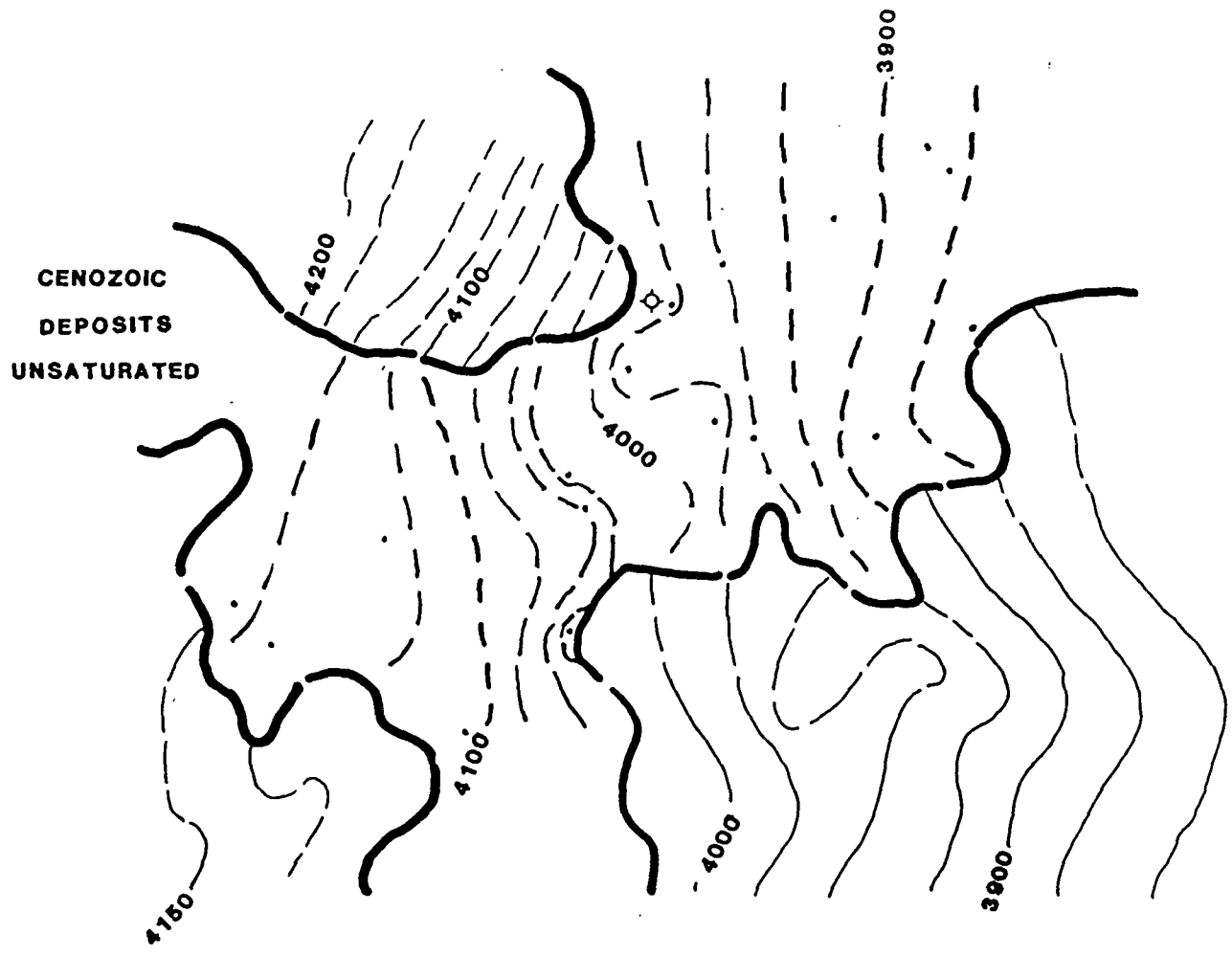


Figure 4-9 Water table elevations (feet) in northern Lea County for Mesozoic and Cenosoic deposits. Brine well shown as dry hole. Solid circles are water wells used in survey (Ash, 1963).

area, the natural gradient (20 feet per mile) is generally easterly. The local gradient at the site is influenced by pumping of the fresh water production wells at the site retarding or possibly locally reversing regional flow direction.

4.3 STRUCTURE

The sub-surface geology of the area is well known due to numerous oil tests. Figure 4-10 is a structure map draw on the top of the San Andres Formation of the area demonstrating the absence of faults and showing the gentle southeast dip into the Permian Basin.

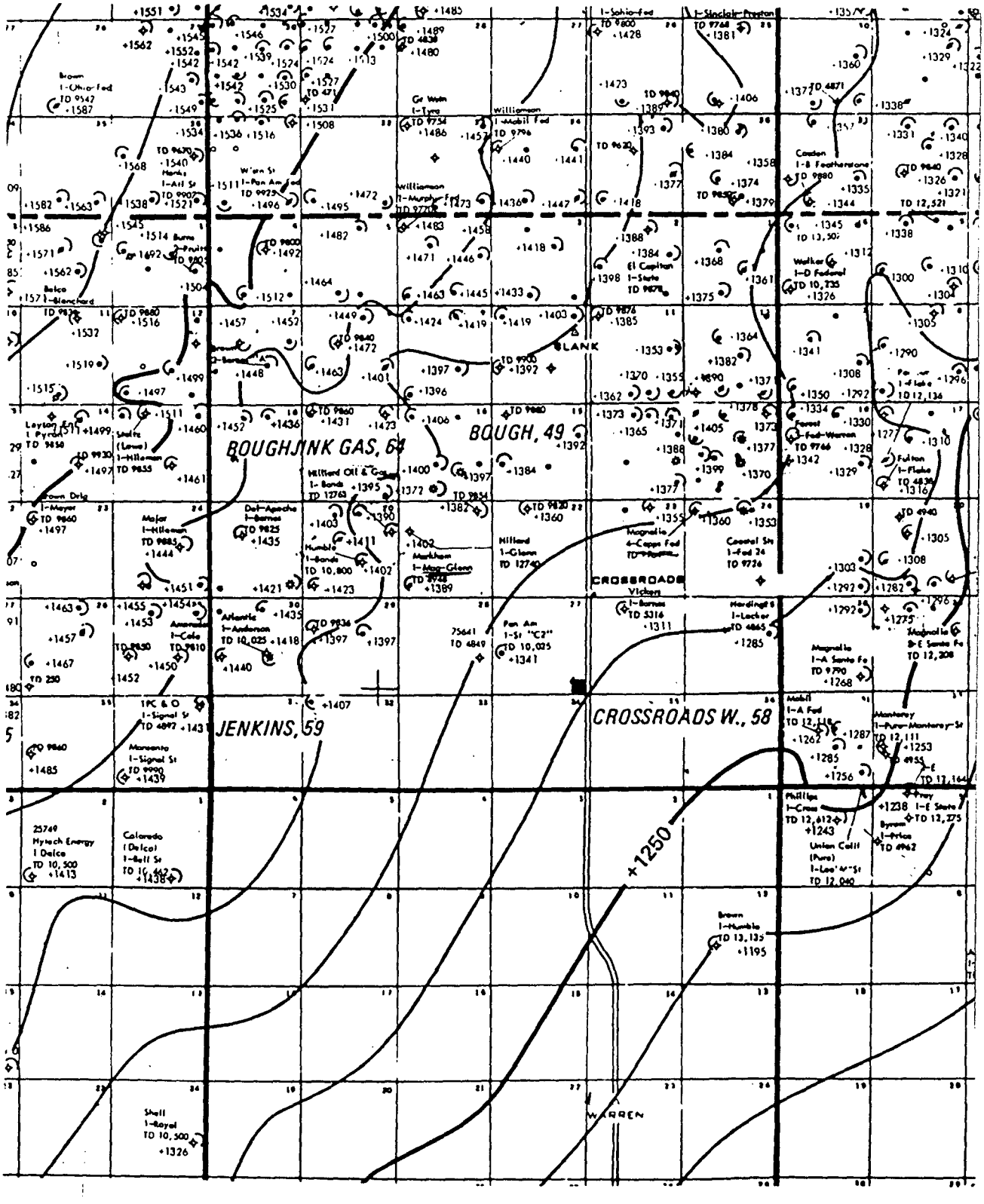


Figure 4-10 Structure Map of Northern Lea County

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

May 28, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-259-072

Mrs. L. A. Stearns
Kenneth Tank Services
P.O. Box 100
Crossroads, New Mexico 88114

RE: Ground Water Remediation
Kenneth Tank Services Brine Production Facility BW-13
Lea County, New Mexico

Dear Mrs. Stearns:

The New Mexico Oil Conservation Division (OCD) has completed a review of the Kenneth Tank Services (Kenneth) letter dated April 1, 1998. It contains Kenneth's response to the OCD for a ground water investigation work plan at Kenneth's brine production facility. The work plan was required by the OCD in a letter dated October 30, 1997. Based on the information provided, the OCD is requiring the following additional information before a ground water investigation work plan can be approved:

1. Identify all ground water wells within a one mile radius of Kenneth's brine injection well.

2. Provide a cation/anion chemical analysis of the wells within the one mile radius.

3. Provide a ground water depth and gradient map.

4. Kenneth will submit a report containing the above mentioned information to the OCD by August 28, 1998. The report will also include recommendations for future actions based on the results of ground water sampling.

If Kenneth has any further questions or comments please contact me at (505)-827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office

PS Form **3800**, April 1995

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BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

April 1, 1998

Mark Ashley, Geologist
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

RE: Kenneth Tank Service Brine Production Facility BW-13

Dear Mr. Ashley:

In cooperation with your office we are continuing to closely monitor the quality of the ground water in the vicinity of our brine facility. Detailed reports are attached.

As expected from historical data, the Chlorides and Total Dissolved Solids continue to fluctuate. Unless directed differently by your request, we will forward the next analysis to your office, July 1, 1998. We appreciate working with you on this project.

Sincerely yours

Lou Ann Stearns

Lou Ann Stearns

Enclosures

Pro-Kem, Inc.

WATER ANALYSIS REPORT

SAMPLE

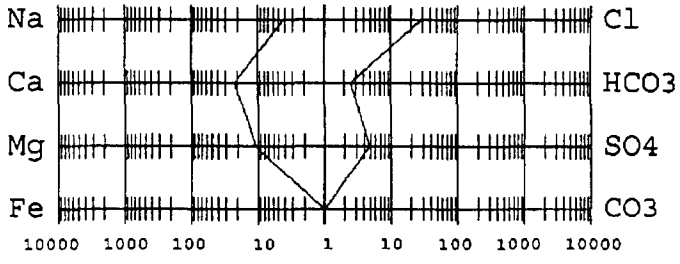
Oil Co. : **K T S**
Lease : **N/A**
Well No.: **West Well**
Salesman:

Sample Loc. :
Formation :
Date Analyzed: **25-March-1998**

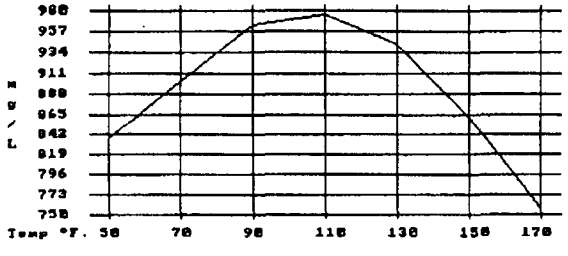
ANALYSIS

1.	pH			7.470		
2.	Specific Gravity 60/60 F.			1.006		
3.	$CaCO_3$ Saturation Index @ 80 F.			+0.418		
	@ 140 F.			+1.188		
	Dissolved Gasses			**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide			Not Present		
5.	Carbon Dioxide			Not Determined		
6.	Dissolved Oxygen			Not Determined		
	Cations					
7.	Calcium	(Ca^{++})		417	/ 20.1 =	20.75
8.	Magnesium	(Mg^{++})		126	/ 12.2 =	10.33
9.	Sodium	(Na^{+})	(Calculated)	90	/ 23.0 =	3.91
10.	Barium	(Ba^{++})		Below 10		
	Anions					
11.	Hydroxyl	(OH^{-})		0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})		146	/ 61.1 =	2.39
14.	Sulfate	($SO_4^{=}$)		215	/ 48.8 =	4.41
15.	Chloride	(Cl^{-})		1,000	/ 35.5 =	28.17
16.	Total Dissolved Solids			1,994		
17.	Total Iron (Fe)			1	/ 18.2 =	0.05
18.	Total Hardness As $CaCO_3$			1,561		
19.	Resistivity @ 75 F. (Calculated)			3.427 /cm.		

LOGARITHMIC WATER PATTERN
***meq/L.**



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.39	194
$CaSO_4$	68.07	4.41	300
$CaCl_2$	55.50	13.95	774
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	10.33	492
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	3.89	227

***Milli Equivalents per Liter**

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

January 15, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-259-007

Mrs. L. A. Stearns
Kenneth Tank Services
P.O. Box 100
Crossroads, New Mexico 88114

RE: Ground Water Remediation Extension
Kenneth Tank Services Brine Production Facility BW-13
Lea County, New Mexico

Dear Mrs. Stearns:

The New Mexico Oil Conservation Division has received the request dated January 2, 1998 for an extension to submit a ground water investigation workplan. The workplan was required to determine the extent of ground water contamination at the Kenneth Tank Services brine production facility. Based on the information provided, an extension until April 5, 1998 **is hereby approved** for the submittal of the required ground water investigation workplan.

If Kenneth has any further questions or comments please contact me at (505)-827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office

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BOX 100
CROSSROADS, N.M.
88114

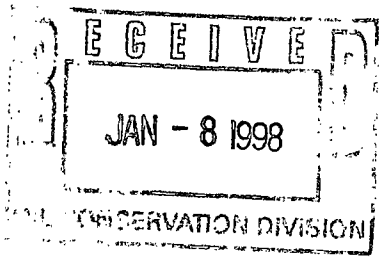
KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

January 2, 1998



Mark Ashley
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Kenneth Tank Service Brine Production Facility BW-13
Lea County, New Mexico

Dear Mr. Ashley:

This letter is in reponse to the letter received from the New Mexico Energy, Minerals, and Natural Resources Department dated October 30, 1997. In this letter the Oil Conservation Division (OCD) contends that the levels of chlorides and Total Dissolved Solids (TDS) have increased as a result of activities associated with the operation of our brine facility. Based on information gathered to date this conclusion is debatable.

In an effort to maintain the integrity of our surface equipment we continually inspect our facility and replace equipment when necessary. As a result we have had no major spills. Tests have been conducted as requested to insure the mechanical integrity of the casing in the brine well. All integrity tests, including the latest one, dated September 15, 1997, have shown the casing to be in good condition and not leaking.

Our original discharge plan was approved in 1985 and has been renewed as required. Since then, quarterly water analysis submitted to the OCD or the EID of chlorides and TDS levels have fluctuated above and below the standards established by the Water Quality Control Commission (WQCC).

The discharge plan prepared by Geoscience Consultants, Ltd., in Albuquerque, NM, dated August 6, 1984, contains a detailed site hydrology and geophysical description of Northern Lea County. This plan also states that variations in water quality in this area can be expected.

In view of the above reasons we would appreciate an extended time frame to come to a definite conclusion that a problem exists at this brine facility. We wish to continue monitoring the water quality by having quarterly water analysis done --we expect the same fluctuation in the samples as has been experienced in the past thirteen years that we have owned and operated this facility.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 30, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-991

Mrs. L. A. Stearns
Kenneth Tank Services
P.O. Box 100
Crossroads, New Mexico 88114

RE: Ground Water Remediation
Kenneth Tank Services Brine Production Facility BW-13
Lea County, New Mexico

Dear Mrs. Stearns:

On September 15, 1997 the New Mexico Oil Conservation Division (OCD) sampled two water supply wells located within the Kenneth Tank Services (Kenneth) brine facility and a ranch well located southeast of the facility. Kenneth operates the two wells on the facility for brine production purposes. Results of the water well sampling are as follows:

Well	Chlorides (Limit: 250 mg/l)	Total Dissolved Solids (TDS) (Limit: 1000 mg/l)
South Well	730 mg/l	2000 mg/l
West Well	820 mg/l	2000 mg/l
Ranch Well	860 mg/l	2000 mg/l

All three wells exceed the Water Quality Control Commission (WQCC) standards for ground water of 10,000 mg/l TDS or less. Based on information gathered to date, it appears that the ground water at the site has been impacted by activities associated with the brine facility.

The OCD is requiring Kenneth to submit a ground water investigation workplan to determine the extent of ground water contamination at the brine facility. Kenneth will also include a remediation proposal. The plan will also include a time schedule for all investigation activities. Please submit the required plan to the OCD Santa Fe Division Office by January 5, 1998 with a copy to the OCD Hobbs District Office.

If Kenneth has any further questions or comments please contact me at (505)-827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office

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ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 8/1/95,

or cash received on 9/12/95 in the amount of $ 740.00

from Kenneth Tank Service

for Crossroads Brine Well (Facility Name) BW-013 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Roger Anderson Date: 9/13/95

Received in ASD by: Angie Allen Date: 9/13/95

Filing Fee X New Facility ___ Renewal X

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

DISCHARGE PLAN RENEWAL BW-013

[redacted]

95-108/1122

KENNETH TANK SERVICE
CRUDE AND WATER TRANSPORTS
675-2357 OR 675-2356
CROSSROADS, NM 88114

August 1, 19 95

PAY TO THE ORDER OF NMED-Water Quality Management
New Mexico--Oil Conservation Division $ 740.00

KENNETH TANK SERVICE 740 DOLLARS 00 CTS DOLLARS

Western Commerce Bank
TATUM, NEW MEXICO 88267

KENNETH TANK SERVICE

Brine Prod. Facility Renewal 1995-2000
FOR Filing Fee & Flat Fees BW-013

[redacted] [redacted]

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

State of New Mexico
Energy, Minerals and Natural Res. Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505
August 1, 1995

Re: Kenneth Tank Service
Discharge Plan Renewal BW-013

In reply to the granting of renewal of our discharge plan for the next five years Kenneth Tank Service plans to meet the requirements as follows:

1. A check for full payment of filing fees and flat fee in the total of $740.00 is attached.

2. Brine transfer lines: 25 ft. poly line runs from well head to holding tanks--this line can and has been checked periodically by pressuring up with triplex pump against closed valve at tank --100 PSI on pressure gauge observed July 1995.
This can easily be observed by OCD representative when other integrity checks are scheduled.

3. Sumps and catch pits are cleaned and visually inspected periodically.

4. Berms to catch accidental spillage around holding tanks are in place and meet capacity specifications.

5. The facility has no chemical or lubrication drums stored at the site.

6-9. KTS agrees to requirements listed by OCD attachment.

10. A mechanical integrity test will be conducted on the well as required before October 3, 1995. We will contact the OCD office in Hobbs, NM to witness the test.

11. Cavity Configuration testing will be discussed with the OCD.

12. Brine production will be recorded by date and reported to the OCD Santa Fe Office quarterly.

13. OCD office in Hobbs will be notified prior to performing remedial work or any other workover. --appropriate forms will be filed.

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

14. The emergency catch pit lining will be replaced. Prior to October 3, 1995, a plan to meet OCD specifications will be submitted, and the work will be done in time required.

15. All brine loading valves will incorporate catch basins by October 3, 1995.

16. We certainly have no plans to close or discontinue use of this facility, but will notify OCD as specified for approval if for some unforeseen reason operations of this facility should cease.

Kenneth Tank Service appreciates the renewal of our plan and will work with the OCD staff as necessary.

Sincerely,

L. A. Stearns

Check Attached

xc: OCD Office, Hobbs, NM

DISCHARGE PLAN RENEWAL BW-013

KENNETH TANK SERVICE
CRUDE AND WATER TRANSPORTS
675-2357 OR 675-2356
CROSSROADS, NM 88114

[redacted]
95-108/1122

August 1, 19 95

PAY TO THE ORDER OF NMED-Water Quality Management
New Mexico--Oil Conservation Division $ 740.00

KENNETH TANK SERVICE 740 DOLS 00 CTS DOLLARS

Western Commerce Bank
TATUM, NEW MEXICO 88267

KENNETH TANK SERVICE

FOR Brine Prod. Facility Renewal 1995-2000
Filing Fee & Flat Fees BW-013

[redacted]

Mark Ashley

From: Wayne Price
To: Mark Ashley
Cc: Bill Olson; Wayne Price
Subject: KTS-Brine St. DP # BW-013
Date: Monday, June 12, 1995 1:42PM
Priority: High

Dear Mark,

Thanks for the telephone call, I have the following recommendations:

1. Install catch basins and valve plugs on the brine loading valves. Presently there is no place for the brine to go when they disconnect their hoses. Even though there is a concrete pad, the pad does not contain any significate quanity of brine and it usually runs off. 10-3-95
2. If they are going to use the pit, then rebuild to guidelines.
3. Require a MIT on the brine well within 90 days and set up on annual basis. 10-3-95
4. KTS should be required to address the issue of elevated TDS and Chlorides in the two on-site water wells and determine the source.

CHECK THIS

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL for Discharge Plan BW-013

I. FACILITY NAME: Kenneth Tank Service Brine Production Facility

II. OPERATOR: C.K. Kinsolving dba Kenneth Tank Service

ADDRESS: P.O. Box 100 Crossroads, NM 88114

CONTACT PERSON: L.A. Stearns LOUANN PHONE: 505-675-2356

III. LOCATION: SE1/4 SE1/4 Section 27 Township 9S Range 35E

Submit large scale topographic map showing exact location Lea County, NM

As per original discharge plan 1985.

IV. Attach the name and address of the landowner of the facility site.

C.K. Kinsolving, Box 100, Crossroads, NM 88114

V. Attach a description of the types and quantities of fluids at the facility.

Fresh Water--1000 bbl. cap. tanks & Brine wtr--1500 bbl. cap.tank

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

As per original discharge plan

VII. Attach a description of underground facilities (i.e. brine extraction well).

Attached: revised brine well drawing(noting error in original)

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

Same as in original discharge plan except now report to OCD

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will no adversely impact fresh water.

As per original discharge plan.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. Fresh wtr analysis & operating pressure & Royalties and Prod. reports current-- 1993: some pipelines replaced--tested &1994 for integrity --sumps checked & cleaned periodically

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with th information submitted in this document and all attachments and that, based on my inquiry of thos individuals immediately responsible for obtaining the information, I believe that the information is true accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: L.A. Stearns Title: Off. Mgr.

Signature: L.A. Stearns Date: 1/25/95

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office

OIL CONSERVATION DIVISION
RECEIVED

'95 APR 20 PM 8 52

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☐ Telephone ☒ Personal	Time 9:45 AM	Date 4-18-95
Originating Party		Other Parties
LOU ANN STEARNS - KTS BRINE ST BW-013		WAYNE PRICE, JERRY SEXTON GARY WINK

Subject KTS BRINE ST BW-013

Discussion MS STEARNS WANTED TO KNOW WHAT IS REQUIRED FROM THEM SINCE THEY HAVE RE-MOLED

NEW TANKS SET IN PLACE, NEW DIRT BERMS, EMERGENCY PIT HAS NEW DIRT BERM

Conclusions or Agreements

WILL HAVE MARK ASHLEY CALL.
CALLED MARK, MARK WILL ~~CALL~~ CALL HER.

Distribution MARK ASHLEY

Signed

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

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

Date: April 20, 1995

Lou Ann Stearns
Kenneth Tank Service/Brine Production Facility
P.O. Box 100
Crossroads, NM 88114

Reference: Brine Production Facility DP# BW-013
SE/4 SE/4 Sec 27-Ts9s-R35E

Dear Ms. Stearns,

Please note after our visit in Crossroads the other day, Jerry Sexton requested I send you the most recent water sampling results and analysis reports. These were taken at the request of the New Mexico State Engineers office which made an inquiry to possible ground water contamination at a nearby well called (Barnes).

Therefore please find enclosed these reports and certain information submitted to the New Mexico State Engineer's office.

If you have any questions concerning the enclosed information please do not hesitate to call or write this office.

Sincerely Yours,

Wayne Price-Environmental Engineer

cc: Jerry Sexton-District I Supervisor
Mark Ashley-Environmental Geologist; NMOCD Santa Fe office
Bill Olson-Hydrogeologist; NMOCD Santa Fe office

Attachments-1

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: KING SOLVING WELL #: _____

LAND STATUS: STATE ____ FEDERAL ____ FEE V

WELL LOCATION: Unit Letter NW/4 Section 35 Township 9S Range 35E

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: WATER (FRESH) DEPTH _____ feet

WELL USE: DOMESTIC STOCK PIPELINE

WITNESS MR. KING SOLVING
MARK ASHLEY - NMOCD

SAMPLE NUMBER: _____ TAKEN BY: WAYNE PRICE - NMOCD

DATE: 3-30-95

Specific Conductance: 1700 µMHOS mh

Total dissolved solids: _____ PPM

Chlorides: 532 PPM

Sulfates: _____ PPM

Ortho-phosphates: Very Low ____ Low ____ Med ____ Hi ____

Sulfides: None ____ Low ____ Med ____ Hi ____

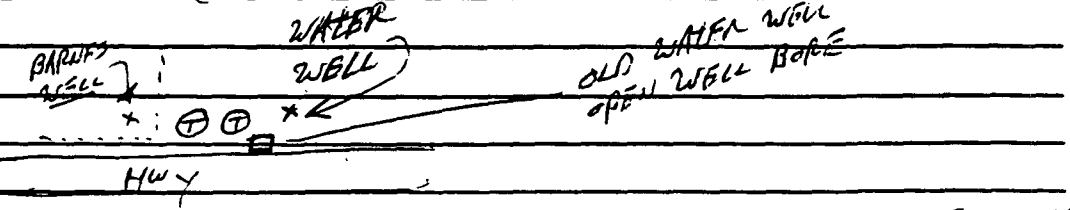
OTHER:

PH ≈ 6-6.5

DATE ANALYZED: _____ BY: _____
OIL CONSERVATION DIVISION

REMARKS: CLEAR WATER, THIS WATER WELL IS LOCATED DIRECTLY ACROSS HWY FROM KTS BRINE ST BW-013.

THIS WELL IS LOCATED NEXT TO THE KENNETH THUK SERVICE OIL TREATING PLANT (R-8167)



N

KTS- BW-013
BRINE
ST.

cc: JERRY SEXTON - NMOCD
BILL OLSON - NMOCD
MARK ASHLEY - NMOCD
KTS-FILE
JOHNNY HERNANDEZ - NMSL

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: KING SOLVING WELL #: _____

LAND STATUS: STATE _____ FEDERAL _____ FEE ✓

WELL LOCATION: Unit Letter NW/4 Section 35 Township 9S Range 38E

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: WATER (FRESH) DEPTH _____ feet

WELL USE: DOMESTIC STOCK PIPELINE

Witness MR. KING SOLVING MARK ASHLEY - NMOCD

SAMPLE NUMBER: _____ TAKEN BY: WAYNE PRICE - NMOCD

DATE: 3-30-95

Specific Conductance: 1700 µMHOS mh

Total dissolved solids: _____ PPM

Chlorides: 532 PPM

Sulfates: _____ PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

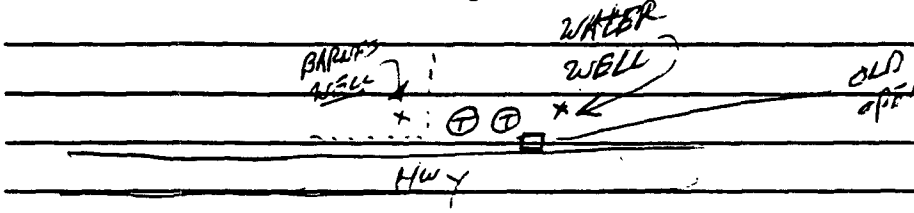
PH ≈ 6-6.5

DATE ANALYZED: _____ BY: _____

OIL CONSERVATION DIVISION

REMARKS: CLEAR WATER, THIS WATER WELL IS LOCATED DIRECTLY ACROSS HWY FROM KTS BRINE ST BW-013.

THIS WELL IS LOCATED NEXT TO THE KENNETH TAUK SERVICE OIL TREATING PLANT (R-8167)



N

KTS- BW-013
BRINE
ST.

cc: JERRY SEXTON - NMOCD
BILL OLSON - NMOCD
MARK ASHLEY - NMOCD
KTS-FILE
JOHNNY HERNANDEZ - NMSE

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

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

TO: Johnny Hernandez
NM State Engineer
From: Jerry Sexton

Subject: Groundwater contamination Sec 27 - R-35E -9S [Crossroads,New Mexico]

On 3/7/95 water samples were taken from fresh water well around the Barnes well and the results are as follows:

Water well at Kenneth's brine station [chlorides 610 PPM]

Wolfe's water well in crossroads [chlorides 71 PPM]

windmill 1/4 mile south of Barnes well [85 PPM chlorides]

In looking at previous water analysis Santa Fe has one for the well at the brine station taken in 1986 showing chlorides of 500PPM.

The water analysis show a slight contamination.

A water analysis from the Barnes well could not be obtained as the well has been capped.

I have attached a map showing where the water samples were taken from in respect to the Barnes well.

Any information on the Barnes well would be helpful to determine the extent of the problem.

I have turned the attached information over to Roger Anderson of the OCD Environmental Bureau, but if I can be of further help let me know.

cc: Bill LeMay
Roger Anderson

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

April 24, 1995

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Re: Kenneth Tank Service Brine Production Facility
Discharge Plan: BW-013

Dear Mr. Mark Ashley:

Please find attached a revised drawing of the brine facility operated and owned by Kenneth Tank Service. We are submitting this modification for the department's approval. Tanks are now set, containment berm rebuilt, catch tub cleaned and checked for integrity, drain lines redone due to damage caused by the heavy equipment needed to move the tanks and do the necessary dirt work. As per our conversation we are aware that the plastic lining of the emergency catch pit needs to be replaced. This pit seldom has any fluid as it is only an emergency pit so we hope that we will be allowed to replace it within the period before our next renewal.

We appreciate working with you on this project. Please let us know if anything else needs to be taken care of to complete the renewal of our current Discharge Plan.

Sincerely,

C.K. Kinsolving, Owner

Lou Ann Stearns, Off. Mgr.

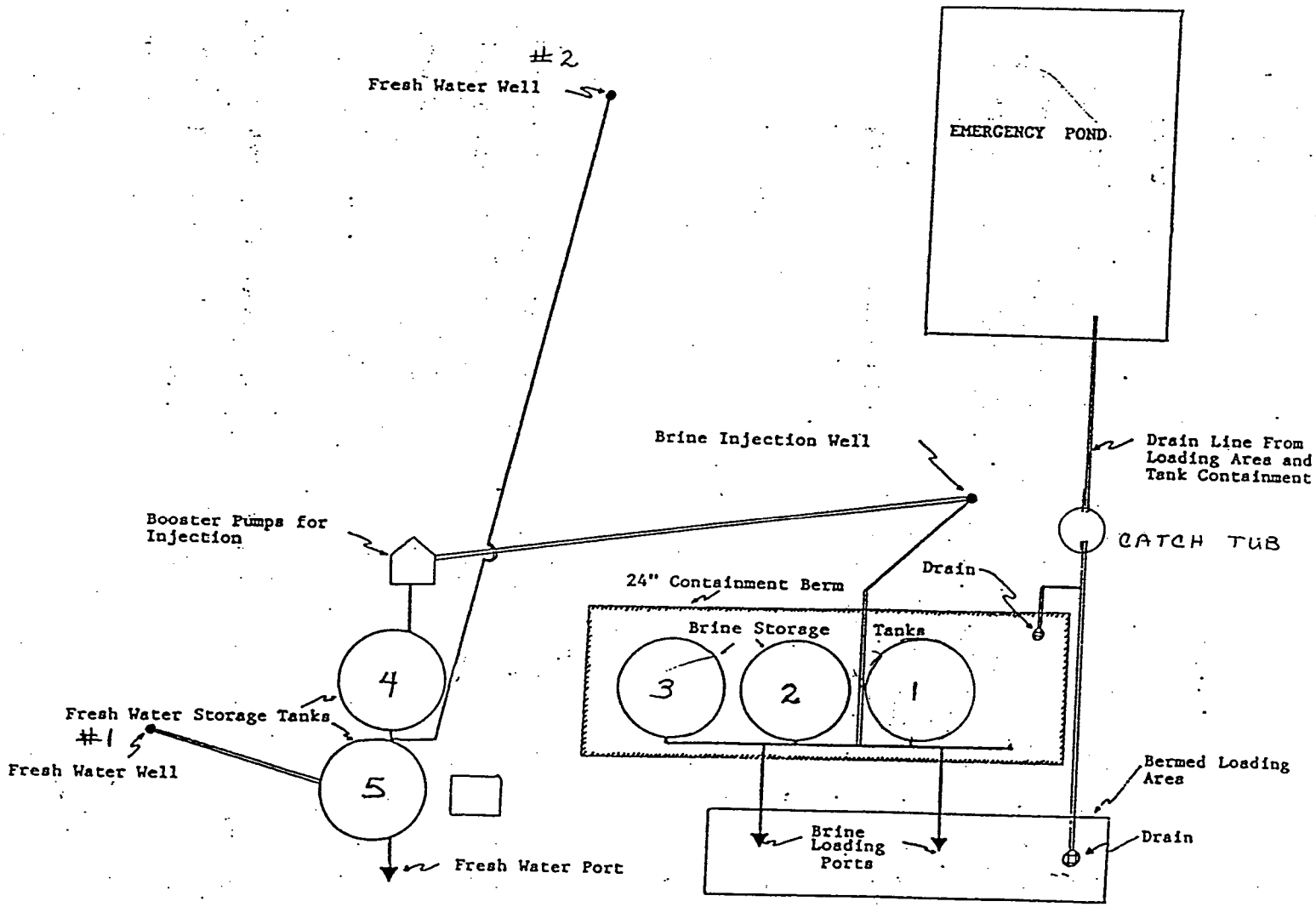


Figure 3-1 Brine facility site plan

Revised Drawing 4/25/95-- Tanks 1,2,3 and 4 replacing previous tanks (all five storage tanks are 1000 barrel metal tanks)

NMOCD Inter-Correspondence

To: Bill Olson-Hydrogeologist
Mark Ashley-Geologist

From: Wayne Price-Environmental Engineer District I

Date: April 6, 1995

Reference: Kenneth Tank Service. Brine Station BW-013

Subject: Ground Water Contamination

Comments:

Dear Bill,

Please find enclosed a water analysis report form for the fresh water located across the highway from the Brine Station. I sampled this well when Mark Ashley was down the other day. Bill, this is the water well system that you and I found that was located next to the two oil tanks. By the way these tanks are permitted as a treating plant under order R-8167. ??

Please note that the chlorides are elevated in this well also. So it does appear that there is elevated levels of chlorides above background levels.

Mr. Kinsolving was on site and indicated to me that the open well bore that you and I found inside of the shed next to the highway was an old water well.

Due to the way the Brine station has been operated in the past, I recommend that KTS be ask to investigate if the contamination is a result of past leaks and spills which occurred at the site. Also the fact that there is evidence of old pits on site.

I recommend it would be advisable if all those old open well bores be plugged to prevent any further contamination.

I have also included addition information to you that was sent to Johnny Hernandez from our office. Mr. Hernandez called and indicated that their office received a complaint about this ground water contamination.

cc: Jerry Sexton-District I Supervisor

Attachments-2

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: KING SOLVING WELL #: _____

LAND STATUS: STATE ____ FEDERAL ____ FEE V

WELL LOCATION: Unit Letter NW/4 Section 35 Township 9S Range 35E

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: WATER (FRESH) DEPTH _____ feet

WELL USE: DOMESTIC STOCK PIPELINE

Witness MR. KING SOLVING MARK ASHLEY - NMOCD

SAMPLE NUMBER: _____ TAKEN BY: WAYNE PRICE - NMOCD

DATE: 3-30-95

Specific Conductance:	1700 µMHOS	mh
Total dissolved solids:		PPM
Chlorides:	532	PPM
Sulfates:		PPM
Ortho-phosphates:	Very Low ____ Low ____ Med ____ Hi ____	
Sulfides:	None ____ Low ____ Med ____ Hi ____	

OTHER:

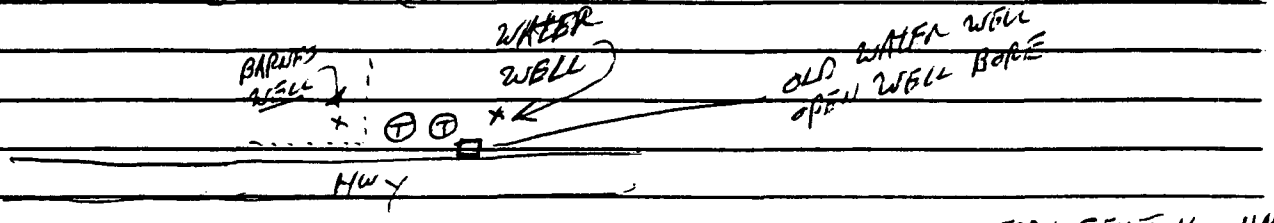
PH ≈ 6-6.5

DATE ANALYZED: _____ BY: _____

OIL CONSERVATION DIVISION

REMARKS: CLEAR WATER, THIS WATER WELL IS LOCATED DIRECTLY ACROSS HWY FROM KTS BRINE ST BW-013.

THIS WELL IS LOCATED NEXT TO THE KENNETH TAUK SERVICE OIL TREATING PLANT (R-8167)



N

KTS- BW-013
BRINE
ST.

cc: JERRY SEXTON - NMOCD
BILL OLSON - NMOCD
MARK ASHLEY - NMOCD
KTS-FILE
JOHNNY HERNANDEZ - NMSE
Roswell

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: KING SOLVING WELL #: _____

LAND STATUS: STATE _____ FEDERAL _____ FEE V

WELL LOCATION: Unit Letter NW/4 Section 35 Township 9S Range 35E

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: WATER (FRESH) DEPTH _____ feet

WELL USE: DOMESTIC STOCK PIPELINE

WITNESS MR. KING SOLVING
MARK ASHLEY - NMOCD

SAMPLE NUMBER: _____ TAKEN BY: WAYNE PRICE - NMOCD

DATE: 3-30-95

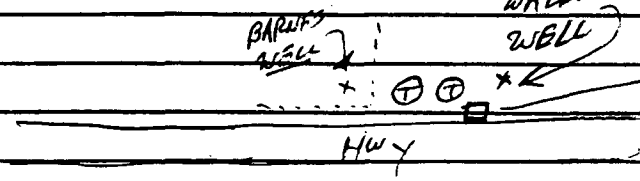
Specific Conductance:	1700 µMHOS	mh
Total dissolved solids:		PPM
Chlorides:	532	PPM
Sulfates:		PPM
Ortho-phosphates:	Very Low ____ Low ____ Med ____ Hi ____	
Sulfides:	None ____ Low ____ Med ____ Hi ____	

OTHER:
PH ≈ 6-6.5

DATE ANALYZED: _____ BY: _____
OIL CONSERVATION DIVISION

REMARKS: CLEAR WATER, THIS WATER WELL IS LOCATED DIRECTLY ACROSS HWY FROM KTS BRINE ST BW-013.

THIS WELL IS LOCATED NEXT TO THE KENNETH TAUK SERVICE OIL TREATING PLANT (R-8167)

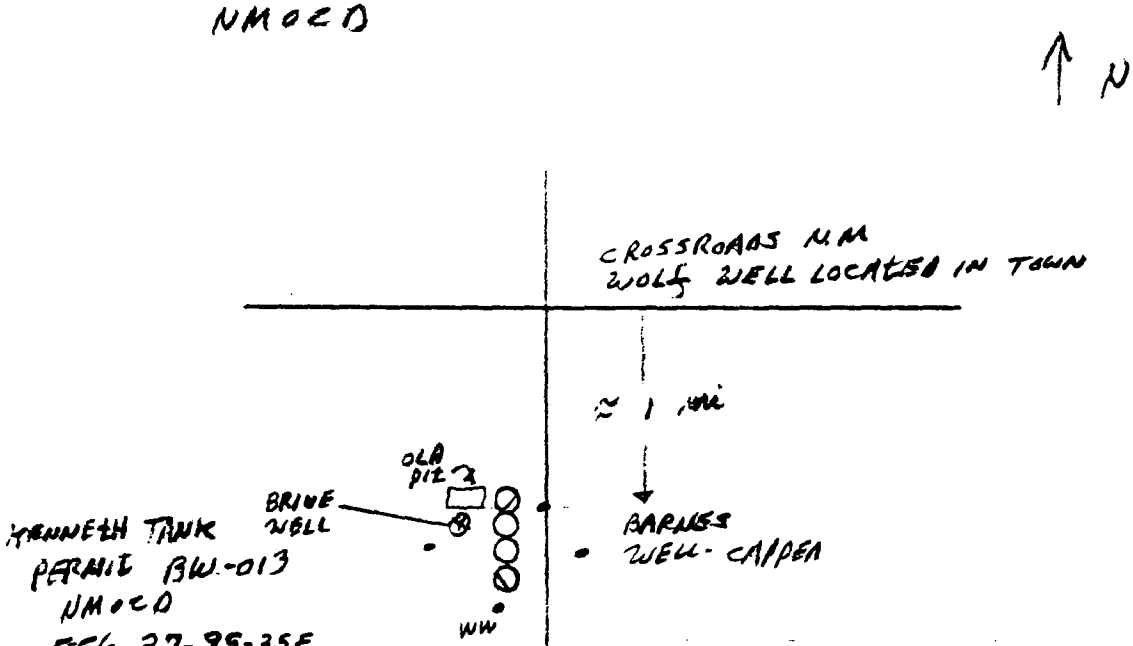


KTS-BW-013
BRINE ST.

N

cc: JERRY SEXTON - NMOCD
BILL OLSON - NMOCD
MARK ASHLEY - NMOCD
KTS-FILE
JOHNNY HERNANDEZ - NMSEO ROSWELL

TO: JERRY SEXTON
NMOCD



SAMPLES TAKEN BY JACK GRIFFIN - NMOCD
" RAN BY WAYNE PRICE - NMOCD **

WELL	CHLORIDES	TDS (mMHOS)	PH	USUAL	OLFIE
WOLFE	71 ppm	1400	6.5-7	CLEAR	NON
(BRINE) KENNETH TANK	610 ppm *	2300 *	6.5-7	"	"
WINDMILL	85 ppm	850	6.5-7	"	"

* EXCEEDS WQCC LIMITS

** NO QA/QC — GRAB SAMPLES

9/6/95

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(BW-013) - Kenneth Tank Services, Kenneth Kinsolving, P.O. Box 100, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their inactive extraction brine well facility located in SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentration of about 320,000 mg/l. Groundwater most likely to be effected by a spill, leak or accidental discharge to the surface is at a depth of 140 feet with an estimated total dissolved solids concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m. Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on the information in the plan and information submitted the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 3rd day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. LeMay, Director

Journal: February 17, 1995

STATE OF NEW MEXICO
County of Bernalillo SS

RECEIVED
MAR 08 1995
Environmental Bureau
Oil Conservation Division

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being of the 17th day of February, 1995, and the subsequent consecutive publications on _____, 1995

Bill Tafoya

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 17th day of, Feb. 1995

OFFICIAL SEAL
Megan Millage
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

PRICE $30.85

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C81184

NMOCD Inter-Correspondence

To: Jerry Sexton-District I Supervisor

From: Wayne Price-Environmental Engineer District I

Date: March 6, 1995

Reference: Groundwater contamination investigation near Crossroads NM - in part of sections (sw/4 26, se/4 27, nw/4 35, ne/4) - Ts9s - R35 e.

Subject: Request for information from NM State Engineers office- John Hernadez

Comments: The State Engineers office has had an inquiry of possible ground water contamination in the area listed above. John Hernadez of the Roswell office has request I check the NMOCD records.

Our Records reflect that there are two wells that are plugged and abandoned and are located in nw/4 of section 26 and sw/4 of section 27 respectively.

There is still one active well which is a brine well located in se/4 se/4 of section 27. This brine well is the Kenneth Tank Service permit # BW-013.

Mr. Hernadez has requested some information on the water wells located on site.

Recommendations:

I recommend that we sample the fresh water well or wells on site for Chlorides, TDS, PH, visual and olfactory. I have the equipment to perform the above.

Please advise.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Publication

and was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, for one (1) day consecutive weeks, beginning with the issue of February 10, 1995 and ending with the issue of February 10, 1995.

And that the cost of publishing said notice is the sum of $38.16 which sum has been (Paid) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 20th day of February, 1995.

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1998

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheo, Santa Fe, New Mexico 87505, Telephone (505)827-7131:

(BW-013) - Kenneth Tank Services, Kenneth Kinsolving, P.O. Box 100, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their insitu extraction brine well facility located in SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentration of about 320,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 feet with an estimated total dissolved solids concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of the State of New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 8th day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY
Director

SEAL

Published in the Lovington Daily Leader February 10, 1995.

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL for Discharge Plan BW-013

I. FACILITY NAME: Kenneth Tank Service Brine Production Facility

II. OPERATOR: C.K. Kinsolving dba Kenneth Tank Service

ADDRESS: P.O. Box 100 Crossroads, NM 88114

CONTACT PERSON: L.A. Stearns PHONE: 505-675-2356

III. LOCATION: SE1/4 SE1/4 Section 27 Township 9S Range 35E

Submit large scale topographic map showing exact location Lea County, NM

As per original discharge plan 1985.

IV. Attach the name and address of the landowner of the facility site.

C.K. Kinsolving, Box 100, Crossroads, NM 88114

V. Attach a description of the types and quantities of fluids at the facility.

Fresh Water--1000 bbl. cap. tanks & Brine wtr--1500 bbl. cap.tanks

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

As per original discharge plan

VII. Attach a description of underground facilities (i.e. brine extraction well).

Attached: revised brine well drawing(noting error in original)

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

Same as in original discharge plan except now report to OCD

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

As per original discharge plan.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. Fresh wtr analysis & operating pressure & Royalties and Prod. reports current--1993: some pipelines replaced--tested &1994 for integrity --sumps checked & cleaned periodically

XI. CERTIFICATION

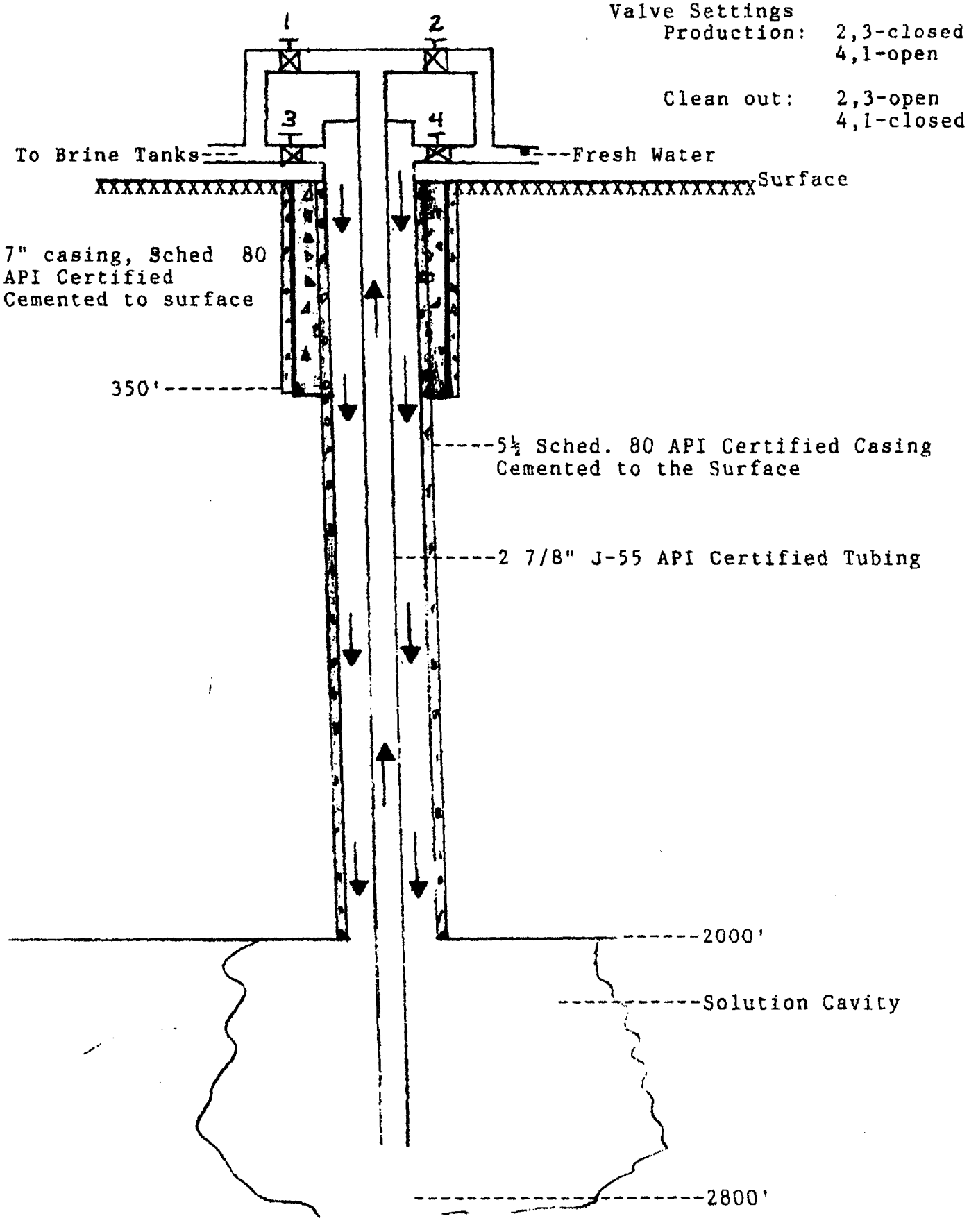
I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: L.A. Stearns Title: Off. Mgr.

Signature: L.A. Stearns Date: 1/25/95

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

Kenneth Tank Service
Brine Production Facility
SE¼ SE¼ Sec.27 T9S R35E Lea Co., NM



Revised Brine Well Construction

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

New Mexico DRUG FREE It's a State of Mind!

January 10, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-788

Mr. Kenneth Kinsolving
Kenneth Tank Service
P.O. Box 100
Crossroads, NM 88114

RE: Discharge Plan Renewal BW-013
Kenneth Tank Service Water Station
Lea County, New Mexico

Dear Mr. Kinsolving:

On June 15, 1994, Kenneth Tank Service received, via certified mail, notice from the New Mexico Oil Conservation Division (OCD) that the discharge plan BW-013 for the Kenneth Tank Service Water Station, located in Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico would expire on July 15, 1995. As of this date (January 10, 1995), the OCD has not received a renewal application from Kenneth Tank Service.

If you wish to renew operations at this facility, a discharge plan application shall be submitted and approved by the OCD prior to July 15, 1995. The application shall follow the Water Quality Control Commission Regulations and the OCD's Guidelines for the Preparation of Ground Water Discharge Plans at Brine Extraction Facilities delivered to you with the OCD's June 15, 1994 renewal notice letter.

If there are any questions on this matter, please contact Mark Ashley at (505) 827-7155.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/mwa
xc: OCD Hobbs Office

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

Z 765 962 788

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993

STATE OF NEW MEXICO
NMOCD District I

INTER-OFFICE MEMO

To file: Kenneth Tank Services-Brine St DP# BW-013

Date: August 23, 1994
Time: 10:30 am

Telephone call:____ Meeting:___ Other:_X___ on site visit

Person called or attending:
W price
G Wink
J Griffin

REFERENCE: Kenneth Tank Services-Brine St DP# BW-013
se/4 se/4 Sec 27, ts 9s, r 35 e

Subject: Brine Station Inspection.

Comments:

Appears to be very little activity at this brine station. Slight visual salt stain around loading areas. Loading areas have no secondary containment.

No sign.

Brine well valves all closed at this time.

Wayne Price
NMOCD Environmental Engineer-District I

CC: CHRIS EUSTICE

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

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

June 15, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P 176 012 227

Mr. Kenneth Kinsolving
Kenneth Tank Service
P.O. Box 100
Crossroads, NM 88114

RE: Discharge Plan BW-013 Renewal
Kenneth Tank Service Water Station
Lea County, New Mexico

Dear Mr. Kinsolving,

On July 15, 1985, the groundwater discharge plan, BW-013 for the Kenneth Tank Service Water Station located in Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years, and was subsequently renewed on November 4, 1991. The current approval will expire on July 15, 1995.

If your facility continues to have potential or actual effluent or leachate discharges and you wish to continue operation, you must renew your discharge plan. The OCD is reviewing discharge plan submittals and renewals carefully and the review time can extend for several months. Please indicate whether you have made, or intend to make, any changes in you system, and if so, please include these modifications in your application for renewal.

Note that the completed and signed application form must be submitted with your discharge plant renewal request.

If you no longer have any actual or potential discharges please identify this office. If you have any questions, please do not

hesitate to contact me at (505)827-5812.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/rlm

xc: OCD Hobbs Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

October 9, 1991

Mr. William J. Lemay
Director, New Mexico Energy, Minerals
and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

The U.S. Fish and Wildlife Service (Service) has reviewed the Public Notice dated September 23, 1991, regarding the effects of granting a State of New Mexico groundwater discharge permit on fish, shellfish, and wildlife resources in New Mexico.

The Service has determined there are no wetlands or other environmentally sensitive habitats that will be adversely affected by the following activity.

(BW-13) - Kenneth Tank Service, Crossroads, New Mexico

If you have any questions, please call Richard Roy at (505) 883-7877.

Sincerely,

Richard D. Donaloo

for Jennifer Fowler-Propst
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals and Natural Resources Department,
Forestry and Resources Conservation Division, Santa Fe, New Mexico
Regional Administrator, U.S. Environmental Protection Agency, Dallas, Texas
Regional Director, U.S. Fish and Wildlife Service, Fish and Wildlife
Enhancement, Albuquerque, New Mexico

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Publication

and numbered ..... in the ..... Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the same day of the week, for one (1) consecutive weeks, beginning with the issue of October 1, 19 91 and ending with the issue of October 1, 19 91

And that the cost of publishing said notice is the sum of $ 29.76 which sum has been (Paid) (Assessed) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 15th day of October, 19 91

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 94

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(BW-13) - Kenneth Tank Service, Kenneth Kinsolving, P.O. Box 100, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their insitu extraction brine well facility. The Kenneth Tank Service Water Station is located in the SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentrations of about 320,000 mg/l. Groundwater most likely to be affected by an accidental discharge is at a depth of 140 feet with an estimated total dissolved solids Concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY,
Director

SEAL

Published in the Lovington Daily Leader October 1, 1991.

STATE OF NEW MEXICO
County of Bernalillo ss

OIL CONSERV ON DIVISION
REC ED
91 OC 7 AM 9 06

Thomas J. Smithson being duly sworn declares and says that he is National Advertising manager of the **Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

for 1 times, the first publication being on the 3 day

of Oct, 1991, and the subsequent consecutive

publications on ....., 1991.

Thomas J. Smithson

OFFICIAL SEAL
Bernadette Ortiz
NADETTE ORTIZ
PUBLIC-NEW MEXICO
TH SECRETARY OF STAT
ires 12-18-93

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this 3 day of Oct, 1991.

PRICE $ 23.41

Statement to come at end of month.

CLA-22-A (R-12/91)

ACCOUNT NUMBER C81184

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

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Any interested person may obtain further information from the Oil Conservation Discharge Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. Lemay
Director

Journal: October 3, 1991

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

September 23, 1991

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-106-675-370

Mr. Kenneth Kinsolving
Kenneth Tank Service
P. O. Box 100
Crossroads, New Mexico 88114

RE: **Suspension of Discharge Plan BW-13**
Kenneth Tank Service Water Station

Dear Mr. Kinsolving:

The discharge plan renewal (BW-13) for the Kenneth Tank Service Water Station located in Section 27, Township 9 South, Range 35 East, NMPM, Lea County New Mexico, was approved by the Director of the Oil Conservation Division (OCD) on September 6, 1991. The renewal application was submitted on August 9, 1991, upon which public notice should have been issued (WQCC Rule 5-102.B.4.) within 30 days of receipt. As an oversight of the OCD (myself, K. Brown), public notice was not issued prior to approval of discharge plan renewal BW-13.

Although the OCD is responsible for issuing public notice and failed to do so, under WQCC Rule 3-108 this step cannot be omitted. Therefore, the discharge plan renewal approval for BW-13 is hereby suspended until public notice has been issued and a period of thirty (30) days is allowed for comments. If no comments are received during the required thirty day comment period that necessitate holding a hearing, then the Director will approve the discharge plan renewal.

Kenneth Tank Service is allowed to continue operations (in accordance with all WQCC Rules and Regulations) while awaiting public notice and the comment period. I am sorry for any inconvenience that this may have caused you. If you have any questions please do not hesitate to contact me at 505-827-5824.

Sincerely,

Kathy Brown

Kathy M. Brown
Environmental Geologist

xc: OCD Hobbs Office

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

KENNETH TANK SERVICE
Crude and Water Transports
CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

August 9, 1991

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

RE: Discharge Plan BW-13 (formerly DP-355)
Kenneth Tank Service Water Station
Lea County, New Mexico

Attention: David G. Boyer, Environmental Bureau Chief
Kathy Brown, Assisting

Please find attached a completed form for renewal of our discharge plan for brine extraction facility. Basically, our operation is as described in the original plan submitted August 6, 1984. We wish to add the following committments and changes in scheduling of reports:

1. Any major leaks and spills will be reported to the Hobbs Office of the OCD within 48 hours of the event.

2. A quarterly report of brine production will be submitted the OCD.

3. KTS will submit a quarterly water analysis from the fresh water well or wells producing at the water station.

4. As required by the OCD, KTS will conduct an open hole pressure test to 500 PSI for 4 hours on an annual basis. This test will be scheduled within the next 2-3 weeks with Hobbs OCD Representatives present. Results and chart will be sent to Santa Fe. A pressure test isolating the casing from the formation will be performed within the next 1½ years. Tests ensuring the mechanical integrity of the well will be conducted at least once every 5 years or during well workovers.

5. Pressure tests of subsurface brine pipelines to ensure their integrity were done and reports submitted in July 1991. These underground pipelines will be tested and reports submitted to the OCD every 5 years.

6. Within the next 1½ years, at the same time as the mechanical integrity of the casing is checked, specific information on depths of all strings of pipe, tops of cement, logs, etc will be submitted to the OCD.

7. KTS submitted a statement of cleaning and visual inspection of sumps on July 1991. The OCD will receive an annual statement of such inspections of the spill collection and drain system of the facility.

We appreciate the help your office has given us with this renewal and will certainly be willing to try to understand and comply with all regulations.

Sincerely

C.K. Kinsolving

C.K. Kinsolving, Owner
CKK/las

5/91

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

OIL CONSERVATION DIVISION
RECEIVED
'91 AUG 22 AM 9 03

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL

I. FACILITY NAME: Kenneth Tank Service/ Brine Production Facility

II. OPERATOR: C.K. Kinsolving dba Kenneth Tank Service

ADDRESS: P.O. Box 100 Crossroads, NM 88114

CONTACT PERSON: Lou Ann Stearns PHONE: 505-675-2356

III. LOCATION: SE1/4 SE1/4 Section 27 Township 9S Range 35E
Submit large scale topographic map showing exact location. Lea Co.,NM

IV. Attach the name and address of the landowner of the facility site.
C.K. Kinsolving, P.O. Box 100, Crossroads, NM 88114

V. Attach a description of the types and quantities of fluids at the facility.
Fresh Water--2,000 bbls. capacity Brine Water--2,000 bbls. capacity

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.
As per original discharge plant on file at OCD, dated Aug. 6, 1984.

VII. Attach a description of underground facilities (i.e. brine extraction well).
As per original discharge plan

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.
As per original discharge plan

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.
As per original discharge plan

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
See Attachment

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: C.K. Kinsolving Title: Owner

Signature: C.K. Kinsolving Date: 8/9/91

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal	Time	Date
	10:30	8-19-91

Originating Party	Other Parties
Kathy Brown	Ms. Kinsolving (Kenneth's daughter)

Subject: Status of Discharge Plan Renewal
Requested 6-11-91; Recieved 6-14-91; Due 8-14-91

Discussion: Inquired on status of renewal - due 8-14-91. Had been on vacation and would have it in ASAP. As for running logs, had thought the required information was around somewhere. Told them if they could find the necessary info. would not need to run logs. Told them ~~needed~~ needed to run a pressure test before renewal of DP and had to commit to a closed-hole test within 1½ years. Also, since their spill collection system was designed to drain to the sunken steel tank they need annual cleanout & inspection of it.

Conclusions or Agreements

Distribution

Signed Kathy Brown

MAILING ADDRESS
BOX 100
CROSSROADS, N.M.
88114

OIL CONSERVATION DIVISION
RECEIVED
'91 JUL 25 AM 9 04

KENNETH TANK SERVICE

Crude and Water Transports

CROSSROADS, NEW MEXICO 88114

PHONE: 505-675-2356
505-675-2357

QUARTERLY REPORT IN COMPLIANCE OF:

Discharge Plan DP-355
KENNETH TANK SERVICE
BRINE PRODUCTION FACILITY
Crossroads, NM

Average working pressure of brine well 290 P.S.I.

Average brine water weight 10-10.2 lbs.

Water analysis reports attached.
(already mailed)

Report submitted by:

Signature _____

Date 7/23/91

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(BW-013) - Kenneth Tank Services, Kenneth Kinsolving, P.O. Box 100, Crossroads, New Mexico, 88114, has submitted a renewal application for the previously approved discharge plan for their insitu extraction brine well facility located in SE/4, SE/4, Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2300 feet and brine is extracted with an average total dissolved solids concentration of about 320,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 feet with an estimated total dissolved solids concentration of 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 8th day of February, 1995.

NO EFFECT FINDING

The described action will have no effect on listed species, wetlands, or other important wildlife resources.

Date 24 February 1995

SEAL

Consultation # 2-22-95-I-195

Approved by

U.S. FISH and WILDLIFE SERVICE
NEW MEXICO ECOLOGICAL SERVICES FIELD OFFICE
ALBUQUERQUE, NEW MEXICO

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY, Director

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

New Mexico DRUG FREE It's a State of Mind!

February 9, 1995

ALBUQUERQUE JOURNAL
P. O. Drawer J-T
Albuquerque, New Mexico 87103

ATTN: ADVERTISING MANAGER

RE: NOTICE OF PUBLICATION

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
2. Statement of cost (also in duplicate.)
2. CERTIFIED invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than February 17, 1995.

Sincerely,

Sally Martinez
Sally E. Martinez
Administrative Secretary

Attachment

Z 765 963 306

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Journal	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, March 1993

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

New Mexico DRUG FREE It's a State of Mind!

February 9, 1995

LOVINGTON DAILY LEADER
P. O. Box 1717
Lovington, New Mexico 88260

ATTN: ADVERTISING MANAGER

RE: NOTICE OF PUBLICATION

_____
_____
_____
_____

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Please publish the notice no later than February 17 *, 1995.*

Sincerely,

Sally E. Martinez
Administrative Secretary

Attachment

Z 765 963 282

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Lovington Daily Leader	
Street and No. P.O. Box 1717	
P.O., State and ZIP Code Lovington, NM 88260	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

800, March 1993

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

NOTICE OF PUBLICATION

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

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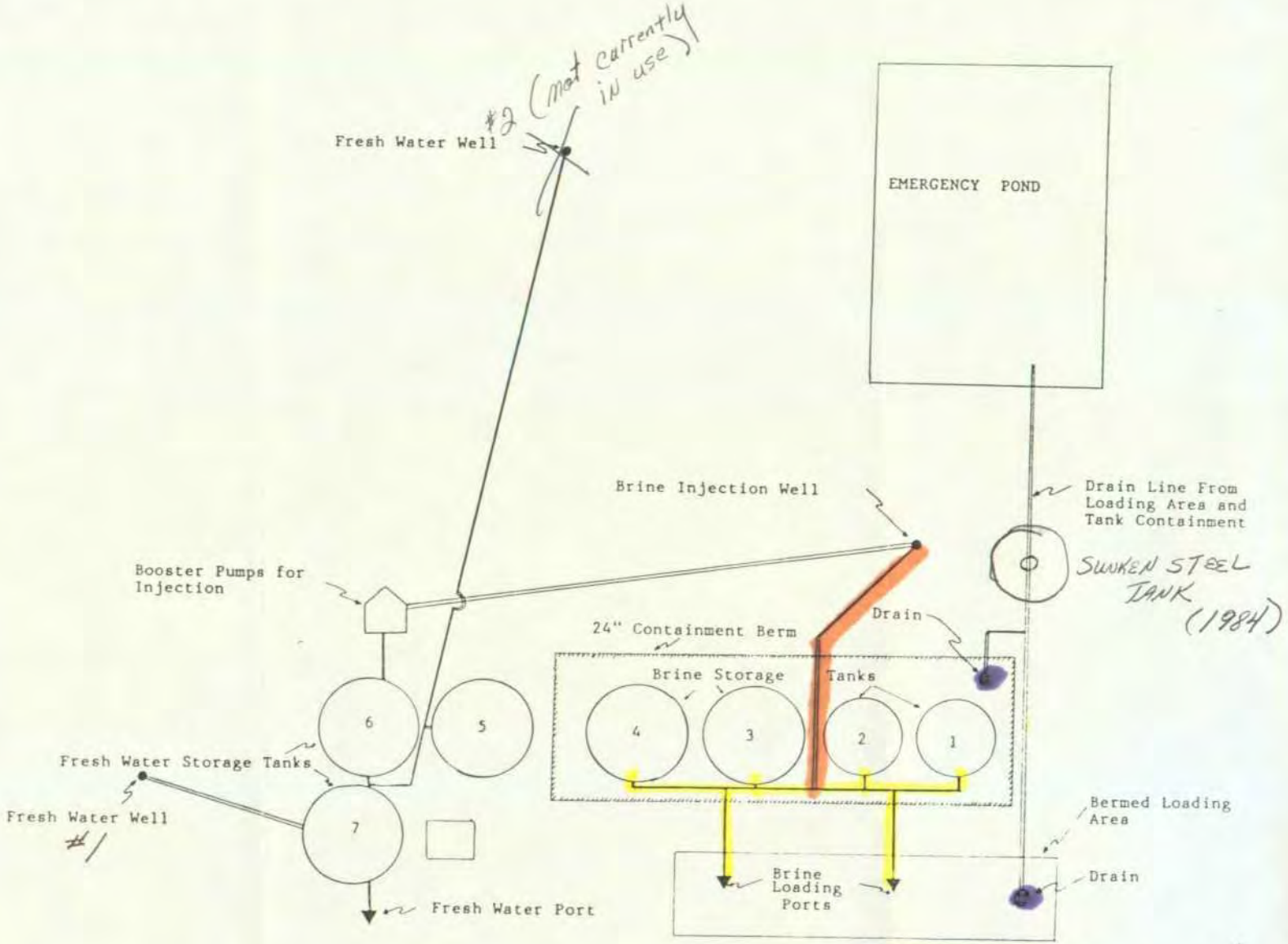
GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 8th day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director



KTS, Crossroads, NM

Figure 3-1 Brine facility site plan

500psi
↓
350psi

Kenneth Tank Service

1) State Land
   Pay Royalties by using brine tickets; believe accurate & were audited by State Land-OK
   No fresh water meter
   Don't want to put meters in because expensive and only making brine say 1x a month.

2) Fresh water analysis
   Had Baker do last quarter and results were screwy. Had them reanalyze (new sample) it. Will submit the new analysis & possibly get a new lab.

3) 1 of the wells isn't being used because the pump is out. Will submit diagram with info

4) Will run integrity test & commit to casing isolation test. Will commit to logs to be run when pull tubing to run pressure test. Need base of casing, top of cement and top of salt.

5) Will commit to annual inspection of sump & submit diagram with sunken steel tank

7/22/91

Freshwater analysis shows hi Cl- & TDS.
Need to verify results with OCD samples
Will get Hobbs office to sample

Need to verify emergency pond not being used & to have them close it probably

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☐ RENEWAL

I. FACILITY NAME: _____

II. OPERATOR: _____

ADDRESS: _____

CONTACT PERSON: _____ PHONE: _____

III. LOCATION: ___/4 ___/4 Section ____ Township _____ Range _____

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the sources and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities.

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

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

Name: _____ Title: _____

Signature: _____ Date: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

June 11, 1991

BRUCE KING
GOVERNOR

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-327-278-189

Mr. Kenneth Kinsolving
Kenneth Tank Service
P. O. Box 100
Crossroads, New Mexico 88114

RE: Discharge Plan BW-13 (formerly DP-355)
Kenneth Tank Service Water Station
Lea County, New Mexico

Dear Mr. Kinsolving:

On July 15, 1985, the ground water discharge plan, BW-13 for the Kenneth Tank Service Water Station located in Section 27, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico, was approved by the Director of the Environmental Improvement Division (EID). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The approval expired on July 15, 1990. Authority to administer the brine program was transferred from the EID, back to the Oil Conservation Division (OCD) in 1989 with staffing approved in 1990. Please note the new discharge plan number (BW-13), formerly DP-355, which will be the permanent designation used in all future correspondence.

If your facility continues to have potential or actual effluent or leachate discharges and you wish to continue operations, you must renew your discharge plan. Since your discharge plan has expired, please submit your application for renewal of plan approval within sixty days of receipt of this letter. Please indicate whether you have made, or intend to make, any changes in your discharge system, and if so, please include these modifications in your application for renewal. To assist you in preparation of your renewal application, I have enclosed an application form and a copy of the OCD's Guidelines for Preparation of Ground Water Discharge Plans at Brine Extraction Facilities, revised May 1991, and a copy of the Water Quality Control Commission Regulations.

The OCD visited your operation of February 7, 1991, as part of an extensive multifacility inspection trip that week. Because of scheduling problems, and the numerous facilities visited, we were unable to notify you of the date and time of arrival in advance. Although not required, our agency generally notifies operators in advance giving time of arrival; in this instance it was not possible to do so.

The following comments are based on observations during the OCD site visit on February 7, 1991, and on additional requirements detailed in the guidelines. Please address these comments in your discharge plan renewal application.

1. Transfer of Commitment
   Notwithstanding the transfer of jurisdiction of brine wells to OCD, all prior commitments to EID concerning reporting and notification remain in effect. Note that all unauthorized discharges (ie. major leaks and spills), need to be reported to the OCD within 48 hours of the event (WQCC Rule 5-208).

2. Volumes of Injection Fluids and Brine
   The OCD requires (WQCC Rule 5-207) a quarterly report listing, by month, of the volume of fluids injected and produced for comparison to detect underground losses. The OCD has no volume reports on file for the Kenneth Tank Service (KTS) Water Station. Submit a proposal and schedule for reporting injection fluid and brine production volumes. Also, submit the date of first brine production and the total volume of brine produced to date. This information is necessary to evaluate subsidence potential at the KTS Water Station.

3. Fresh Water Analysis
   KTS has committed to quarterly sampling and analysis of the two fresh water source wells at their water station. The last report that the OCD has on file is dated October 1990 and contains data only for the No. 1 Well. Submit to the OCD the water analyses for both fresh water source wells for the first quarter of 1991. Also, identify on a facility site diagram the No. 1 and No. 2 fresh water source wells. If only one well is being operated, explain why and indicate which well is in operation.

4. Mechanical Integrity Testing
   Pursuant to revised OCD guidelines for discharge plans at brine facilities, all wells must be pressure tested (open-hole) to 500 psi for 4 hours on an annual basis. A pressure test isolating the casing from the formation using either a bridge plug or a packer must be conducted at least once every 5 years or during well workovers. The results from a current pressure test will be required prior to the approval of any brine facility discharge plan application or renewal. If the immediate test is performed using the open-hole method then a pressure test isolating the casing from the formation is required within the next 1 1/2 years. An OCD representative must be on site to witness all pressure tests. Submit a proposal for testing and ensuring the mechanical integrity of the well.

5. Brine Pipelines
   In your original discharge plan dated August 6, 1984, KTS committed to semi-annual pressure testing of subsurface brine pipelines to ensure their integrity. The OCD does not have any records on file documenting these tests. Submit the results of all past pipeline integrity tests. Include the age and material of all buried brine pipelines. If you would like to modify your schedule for testing underground brine pipelines, propose an alternative plan.

6. Well Completion and Formation Data

The only report on file that the OCD has detailing the original 1966 well completion is a Form C-103 filed with the OCD on February 28, 1983. At best, this report consists of personal recollection by a now deceased Mr. Masell. To evaluate the risk for both ground water contamination and subsidence/collapse potential, it is necessary to have the accurate depths of all strings of pipe, tops of cement, and formation boundaries. KTS committed to performing a cement bond long, compensated neutron log, and formation density log (or the equivalent combination) prior to renewal of the discharge plan. If you have already ran these logs and determined the necessary information, submit the results to the OCD. If you have not performed the tests that you committed to you are required to run the logs and submit the results before your discharge plan renewal is approved.

7. Spill Collection System

The OCD's inspection of February 7, 1991 revealed a sunken steel stock tank near your emergency pond. This tank is not identified on your facility site diagram included in your original discharge plan. Describe the use and exact location of this tank. Is your drain system designed so that spilled fluids collect in this tank or in your two drain sumps? The OCD requires all new underground tanks with standing fluids have positive leak detection. All present underground tanks (i.e. sumps) that do not have leak detection are required to be cleaned out and visually inspected on an annual basis. Submit to the OCD a schedule for annual inspection of your current underground tank.

Addressing the above items in your application for renewal of your discharge plan will accelerate the review and response time of your application. Note that the completed and signed application form must be submitted with your discharge plan renewal request.

If you no longer have any actual or potential discharges a discharge plan renewal is not needed, please notify this office. If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5824.

Sincerely,

David G. Boyer, Hydrogeologist
Environmental Bureau Chief

DGB/KMB/sl

Enclosures

cc: OCD Hobbs Office