

KINDRED PETROLEUM COMPANY
P. O. Box 411
Midland, Texas 79702

April 28, 1987

MAY - 1 1987

New Mexico Oil Conservation Division
P. O. Box 2088'
Santa Fe, New Mexico 87501

Gentlemen:

Please refer to our letter to you dated April 8, 1987, along with Form C-108 and attachments regarding our intent to use Well No. 2, State HS Lease, in Section 9, T-18-S, R-34-E, Lea County, New Mexico, as a water disposal well.

We are enclosing herewith the remaining required data as follows:

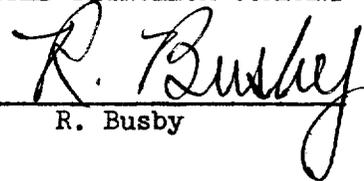
1. Copy of results of a water analysis test
2. Copy of return receipts from offset operators and the surface owner
3. Affidavit of Publication with copy of the notice from The Lovington Leader.

We trust that this information will enable you to approve our application. However, if additional data is needed please contact us.

Yours very truly,

KINDRED PETROLEUM COMPANY

By


R. Busby

RB:b
Enclosures



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

File No. _____

Report No. 38975

Report Date 4-20-87

Date Received 4-10-87

Delivered By F. Alvarado

Report of tests on: **Water**

Client: **Kindred Petroleum**

Identification: **State "HS" Comm No. 2, Wellhead sample**

	<u>mg/L</u>
Calcium-----	6160
Magnesium-----	4712
Sodium & Potassium (Calc. as Na)-----	55079
Carbonate-----	None
Bicarbonate-----	107
Sulfate-----	2337
Chloride-----	107791
Total Dissolved Solids @ 180° C.-----	175000
Total Hardness (as CaCO ₃)-----	34800
pH-----	5.42

Compatibility with State "HS" Comm No. 1

Major iron precipitation was observed on all component blends of these two waters

Standard Methods, 16th Edition

Technician: **JDN**

Copies **3cc Kindred Petroleum**

SOUTHWESTERN LABORATORIES

Larry M. Burch

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
Legal Notice

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
April 14, 1987

and ending with the issue of
....., 19.....

And that the cost of publishing said notice is the
sum of \$7.33

which sum has been (Paid) (~~2566397~~) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 15th
day of April, 1987

Mrs. Jean Sevier
Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1990

LEGAL NOTICE

Kindred Petroleum Company is making application for authorization to inject produced formation water into our Well No. 2, State Lease, located 1980' FSL and 660' SWL of Section 9, T-18-S, R-34-E, Lea County, New Mexico. Our purpose is to use this as a water disposal well with injection interval from 4380 feet to 4525 feet in the Queen formation. The expected maximum injection rate is 500 barrels of water per day with a maximum injection pressure of 1100 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

The name, address and phone number and contact party for the applicant are as follows:

Kindred Petroleum Company
P.O. Box 411
Midland, Texas 79702
Mr. Frank Alvarado Tel. (915) 687-2828
Published in the Lovington Daily Leader April 14, 1987.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

3. Article Addressed to: <i>General Operating</i>		4. Article Number <i>P248455081</i>	
		Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	
		Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .	
5. Signature - Addressee <i>X</i>		8. Addressee's Address (ONLY if requested and fee paid)	
6. Signature - Agent <i>X</i> <i>C.W. Stamboff</i>			
7. Date of Delivery <i>4-10-87</i>			

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

3. Article Addressed to: <i>Ray Westall</i>		4. Article Number <i>P248455082</i>	
		Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	
		Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .	
5. Signature - Addressee <i>X</i> <i>Ray Westall</i>		8. Addressee's Address (ONLY if requested and fee paid)	
6. Signature - Agent <i>X</i> <i>Michelle Taylor</i>			
7. Date of Delivery <i>April 9, 1987</i>			

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

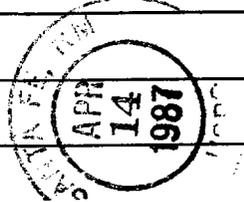
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

3. Article Addressed to: <i>Commissioner</i>		4. Article Number <i>P248455080</i>	
		Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	
		Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .	
5. Signature - Addressee <i>X</i> <i>Horacio Mascareno</i>		8. Addressee's Address (ONLY if requested and fee paid)	
6. Signature - Agent <i>X</i>			
7. Date of Delivery <i>APR 14 1987</i>			

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT





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

GARREY CARRUTHERS
 GOVERNOR

April 10, 1987

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

OIL CONSERVATION DIVISION
 P. O. BOX 2088
 SANTA FE, NEW MEXICO 87501

RE: Proposed:
 MC _____
 DHC _____
 NSL _____
 NSP _____
 SWD XX _____
 WFX _____
 PMX _____

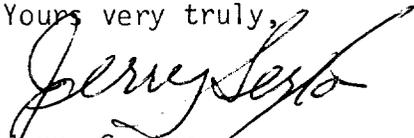
Gentlemen:

I have examined the application for the:

Kindred Petroleum Co.	State HS #2-L	9-18-34	
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

We did not have enough information to evaluate.

Yours very truly,

 Jerry Sexton
 Supervisor, District 1

/ed

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no

II. Operator: Kindred Petroleum Company
Address: P. O. Box 411, Midland, Texas 79702
Contact party: Frank Alvarado Phone: (915) 687-2828

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

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

Name: R. Busby Title Agent
Signature: *R. Busby* Date: April 8, 1987

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. X. Logs were filed after the well was drilled on 10/30/84.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage; location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

- III. Refer to "Injection Well Data Sheet" attached
- V. Refer to map that identifies all wells and leases within two miles of our proposed injection well.
- VI. Refer to completion cards on all wells of public record within the area of review which penetrate the proposed injection zone.
- VII. (1) Proposed average and maximum daily rate and volume of fluids to be injected:
- | | | |
|----------------|---|----------|
| Average rate | - | 1 BPM |
| Maximum rate | - | 2 BPM |
| Average volume | - | 300 BWPD |
| Maximum volume | - | 500 BWPD |
- (2) System is open;
- (3) Proposed average and maximum injection pressure:
- | | | |
|------------------|---|----------|
| Average pressure | - | 750 psi |
| Maximum pressure | - | 1100 psi |
- (4) Source of injection fluid:
Kindred Petroleum Co., State HS, Well No. 1
Analysis pending
- (5) Not applicable
- VIII. Queen formation of Permian System.
The formation is gray to red, fine to medium-grained sandstone. Thickness is 4 feet. Depth is 4380 feet.
Underground sources of drinking water are Triassic above the Redbeds @ 300[±] feet.
- X. Logs were filed after the well was drilled on 10/30/84.
- XI. Not applicable.
- XII. Applicant has examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. A copy of the application has been furnished, by certified mail, to the owner of the surface of the land on which this well is located and to each leasehold operator within one-half mile of the well location. Proof to be furnished on receipt of same.
- A proof of publication in the Lovington County newspaper will be furnished on receipt of same.

4380 - 4385

2 1980' FSL & 660' FWL
WELL NO. FOOTAGE LOCATION

9
SECTION

T-18-S
TOWNSHIP

R-34-E
RANGE

Schematic

Tabular Data

Surface Casing

Size 13-3/8 " Cemented with 550 sx.

TOC Surface feet determined by circulated

Hole size 17 1/2"; 20"

Intermediate Casing

Size 8-5/8 " Cemented with 1650 sx.

TOC Surface feet determined by circulated

Hole size 11"

Long string

Size 5-1/2 " Cemented with 1500 sx.

TOC Surface feet determined by circulated

Hole size 7-7/8"

Queen Perfs
(12 holes)
4380' - 4385'

Total depth 9,000'

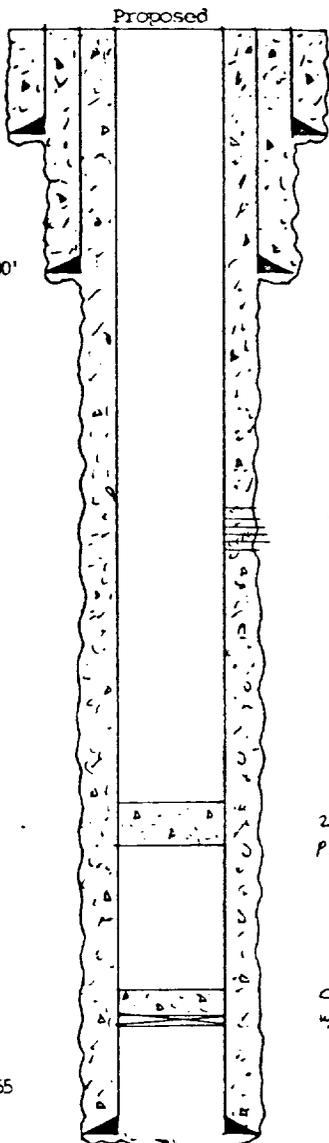
Injection interval

4380 feet to 4385 feet
(perforated) or open-hole, indicate which)

25 sx (250')
Plug @ 5370

CIBP @ 8175'
w/ 90' cmt

0' - 134' : 5 1/2", 17#, J-55
134' - 7148' : 9", 15.5#, X-55
48' - 9000' : 5 1/2", 17#, J-55
Circ. cmt.
9000'



Tubing size 2-3/8" lined with _____ set in a
(material)
Otis MH packer at 4250 feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Queen
- Name of Field or Pool (if applicable) E-K Yates Seven Rivers Queen
- Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? Oil well
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Yes
8058-8124' squeeze w/200 sx; 8222-8290 CIBP @ 8175' w/90' cement on top
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. E-K Queen - 4380'; West Vacuum Bone Spring - 8050'

LEA COUNTY NEW MEXICO E-K FIELD
 GRAND BANKS ENERGY CO, 1 Rhodes State Result: OIL DO
 5 mi SW/Buckeye; 660' FSL, 660' FWL Sec 9-18S-34E. 4425'

SPUD: 5-27-81; Comp: 8-27-81; Elev: 4067'; Grd: 4482'; GrayB; PB:
 Casing: 8-5/8" 393'/275 sx; 4 1/2" 4482'/1000 sx; 2-3/8" 4389'
 Prod Zone: (Queen), T/Pay 4387', Prod thru perfs 4387-4415'
 IPB: 15 BOPD + 9 BW, Grav 33.4, GOR 1STM
 Comp Info: Perf (Queen) @ 4387, 4389, 4394, 4396, 4399, 4401
 4403, 4405, 4409, 4411, 4415, 4415, A/2800 gals, frac w/
 25,000 gals gel w/ 5 3/4, 50# sd; S/10% oil & 90% LW; C/
 Meter # 791
 AP1 NO: 30-015-27432

Petroleum Information Corporation
 A subsidiary of A.C. Nielson Company
 Date 4-14-82 Card No: 23 dh

LEA COUNTY NEW MEXICO E-K QUEEN FLD
 CITIERS SERVICE PROD. CO. #2-BC State Result: OIL
 8-18S-34E, 660' FSL & of Sec.

SPUD: 3-27-57; Comp: 4-20-57; Elev: 4070' DF; TD: 4500';
 PB: 4434'
 Casing: 8 5/8" 374'/275 sx, 5 1/2" 4452'/300 sx
 Prod Zone: T/Pay 4405'; Prod thru perfs 4405-32'
 IPB: 11 BOPD thru 14/64" oh, Grav 37, GOR 734-1
 Comp Info: Grd 4400-32', res 11' dolo, 17' anhy & 3' sd w/
 slt odor & staining; frac w/15,000 gals
 Tops: Queen 4396', Yates 3227', Seven Rivers 3670'

Date: 5-8-57 Card No.: 11 of

COUNTY LEA, N.M. FIELD WILD CAT (BS)
 OPR AMOCO PROD. CO. WELL NO. 1
 STATE "HS" COM
 Sec 9 T-18-S, R-34-E (K)
 1980 FSL & FWL of Sec REISSUE TO OORR PERFS

API NO. 30-025-27387 CO. ORD
 F.R. 4-29-81 OBJ 13,600 RT ELEV 4065'
 CTR McVay 5-11-81 4046'
 TD 13,745 PBD 10,450 P.A.A. 61

PAY ZONE	PROD INTERVAL	IP	BO	W	HRS	CHK	TEST BAI
B5	8050-8428	F	314	28	24	9/64"	

GOR	GVY	CP	TP	BHP	POT DATE	TREATMENT
92			200		12-1/-81	

13 3/8-420-371 52-13,700-3650
 9 5/8-5884-5600
 MIDLAND OIL SCOUTS ASSOCIATION WELL RECORD

DATE	INTV	LEA, N.M.	FIELD WILD CAT (BS)	SPR (LOG) MARKERS
	TD 13,745'	AMOCO PROD. CO. #1 STATE "HS" COM		Salt (1920)
	DST 8067-8187, op 50"	R/Wtr, FP 2926-		Qn (4368)
	3313, 90"/3313			Del SD (5546)
	DST 8400-51, op 120"	R/720' Wtr, 4 BOCDF, BS (6360)		
	60"/337, FP 149-278, 240"/3383			WTC (11,440)
	D1g Drk 9295-9309			Penn (12,103)
	DST 10,498-587, op 120"	R/7 BFW, Str (12,318)		
	3 BNCGDM, 60"/3212, FP 688-2173,			Atoka (12,648)
	240"/3214			
	DST 11,008-078, op 120"	1100' WB, R/1100' WB, 10' CCO		
	60"/1095, FP 563-563, 120"/674			
	D1g Brk II, 125-130, II, 142-150, II, 158-188, no flw			
	PF/26/13, 512-538, 12/13, 635-641, A/1600,			
	F/39 BL/10', 48/64" ck, FTP 125, A/5000, F/8 BO, 32 BW			
	15/64" ck, FTP 275, PF/4/11, 010-020, S/46 BL, 60 BW/26'			
	PF/10, 548-578, A/4500, Sqz PF 10, 548-578 w/200 SX,			
	PF/36/8410-28, A/3000, PF/16/8050-58,			
	F/240 BO, 30 BW/75', 48/64" ck, FP 160			

Check well records for log
 11-1-82
 3575
 for log summary

(1-20-82)
 (6-23-82)

KINDRED PETROLEUM COMPANY

P. O. Box 411
Midland, Texas 79702

April 8, 1987

Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

By certified mail we are this date sending a copy of Form C-108, Application for Authorization to Inject, with Injection Well Data Sheet attached, for our Well No. 2, State HS Lease, in Section 9, T-18-S, R-34-E, Lea County, New Mexico, to the following:

Surface Owner:

Commissioner of Public Lands
Santa Fe, New Mexico 87501

Offset Operators:

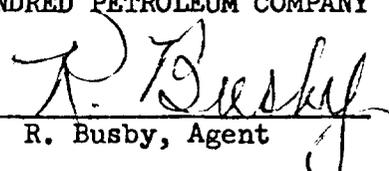
General Operating Company
Ridglea Bank Building - Suite 1007
Fort Worth, Texas 76116

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255

We will forward a copy of the return receipts just as soon as they are received in our office.

Yours very truly,

KINDRED PETROLEUM COMPANY

By 
R. Busby, Agent

RB:b

KINDRED PETROLEUM COMPANY

P. O. Box 411
Midland, Texas 79702

April 8, 1987

Publisher
Lovington Daily Leader
P. O. Box 1717
Lovington, New Mexico 88260

Dear Sir:

Kindred Petroleum Company is making application for authorization to inject produced formation water into our Well No. 2, State HS Lease, located 1980' FSL and 660' FWL of Section 9, T-18-S, R-34-E, Lea County, New Mexico. Our purpose is to use this as a water disposal well with injection interval from 4380 feet to 4385 feet in the Queen formation. The expected maximum injection rate is 500 barrels of water per day with a maximum injection pressure of 1100 psi.

Also included in your newspaper notice is the statement that "interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days".

The name, address and phone number and contact party for the applicant are as follows:

Kindred Petroleum Company
P. O. Box 411
Midland, Texas 79702
Mr. Frank Alvarado Tel. (915) 687-2828

Please print all of the above information in your newspaper as soon as possible. We shall appreciate your mailing us a copy along with your invoice and we will immediately remit.

Yours very truly,

KINDRED PETROLEUM COMPANY

By Frank Alvarado
Frank Alvarado

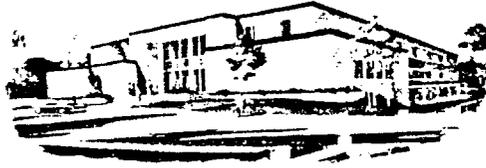
FA:rb

State of New Mexico

Reference No. OG-5



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

April 2, 1987

Kindred Petroleum Company
P. O. Box 411
Midland, Texas 79702

Re: State of New Mexico Oil & Gas Lease No. L-6309-2

Dear Sir:

In connection with your letter dated March 26, 1987 and our recent telephone conversation it is my understanding that you will get permission from the Oil Conservation Division to convert the Well No. 2, State HS Lease in Unit L, Section 9, Township 18 South, Range 34 East, Lea County, New Mexico to a Salt Water Disposal.

Inasmuch as you are the record title owner of the above lease wherein this well is situated and the water to be injected are from well(s) within the leased premises you will not need a Saltwater Disposal Easement.

Yours truly,

Floyd O. Prando, Director
Oil and Gas Division

FOP/cb

cc: Oil Conservation Division ✓