

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: PHILLIPS PETROLEUM Co. Well: CITRUS STATE Well No. 1
 Contact: PAT COLPEPPER Title: _____ Phone: 915-368-1542
 DATE IN 10-29-93 RELEASE DATE 11-12-93 DATE OUT _____

Proposed Injection Application is for: WATERFLOOD Expansion Initial

Original Order: R: 3594 Secondary Recovery Pressure Maintenance

SENSITIVE AREAS

SALT WATER DISPOSAL

WIPP Capitan Reef Commercial Operation

Data is complete for proposed well(s)? Additional Data _____

AREA of REVIEW WELLS

3 Total # of AOR

0 # of Plugged Wells

YES Tabulation Complete

Schematics of P & A's

* Cement Tops Adequate

1 AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) _____

Source of Water _____ Compatible _____

PROOF OF NOTICE

Copy of Legal Notice Information Printed Correctly

Correct Operators Copies of Certified Mail Receipts

Objection Received Set to Hearing _____ Date

NOTES: CITRUS ST. #7 - RUN BOND LOG TO DETERMINE TOC
& SQZ IF NECESSARY

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<input checked="" type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	<u>11-16-93</u> Date	Nature of Discussion	<u>TOC ON CITRUS ST No. 7</u>
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion	_____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion	_____

-2-

CASE No. 3949

Order No. R-3594

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company, is hereby authorized to utilize its Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, NMPM, Tulk-Wolfcamp Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 9550 feet, with injection into the open-hole interval from approximately 9580 feet to 10,400 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

esr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3949
Order No. R-3594

APPLICATION OF PHILLIPS PETROLEUM
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 26th day of November, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Phillips Petroleum Company, is the owner and operator of the Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, NMPM, Tulk-Wolfcamp Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations, with injection into the open-hole interval from approximately 9580 feet to 10,400 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 9550 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

RELEASE 11-15-85

NOV 11 10 58 AM '85

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: Phillips Petroleum Company
Address: 4001 Penbrook St. Odessa, Texas 79762
Contact party: Pat Culpepper Phone: 915/368-1542
- 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 ^{Amendment} ~~modification~~ of an existing project? yes no
If yes, give the Division order number authorizing the project R-3594.
- 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: L. M. Sanders Title: Supervisor, Reg. Affairs

Signature: L. M. Sanders Date: 10/27/93

* 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.

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.

Application for Authorization to Inject

PHILLIPS PETROLEUM COMPANY
CHEM STATE WELL NO. D01

III. WELL DATA

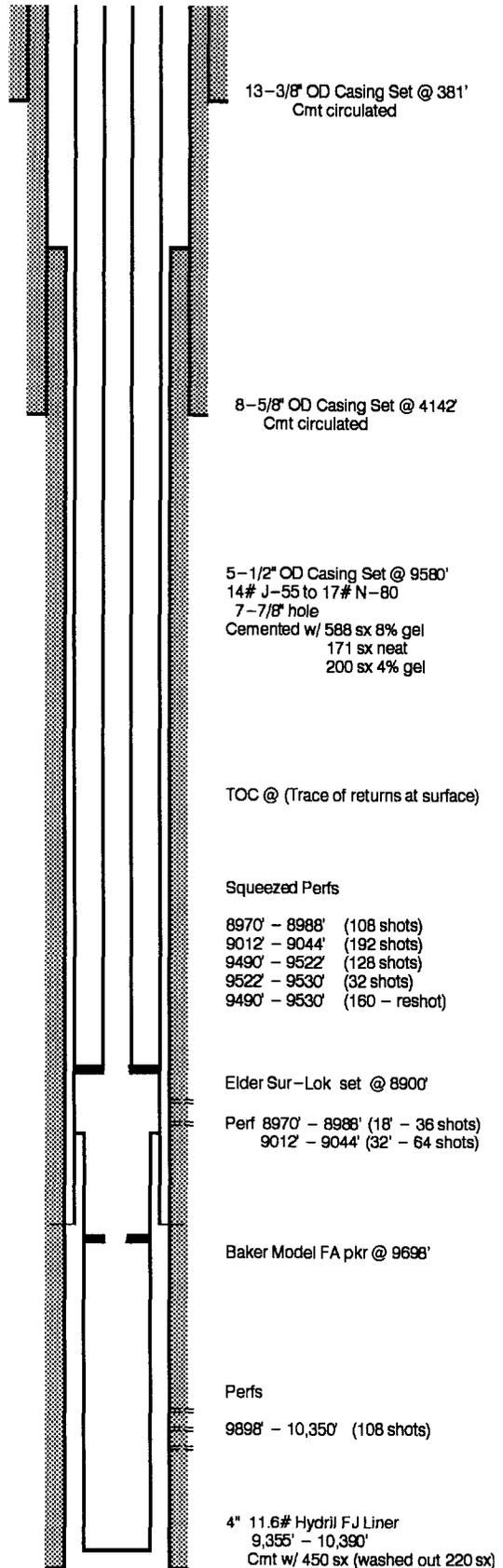
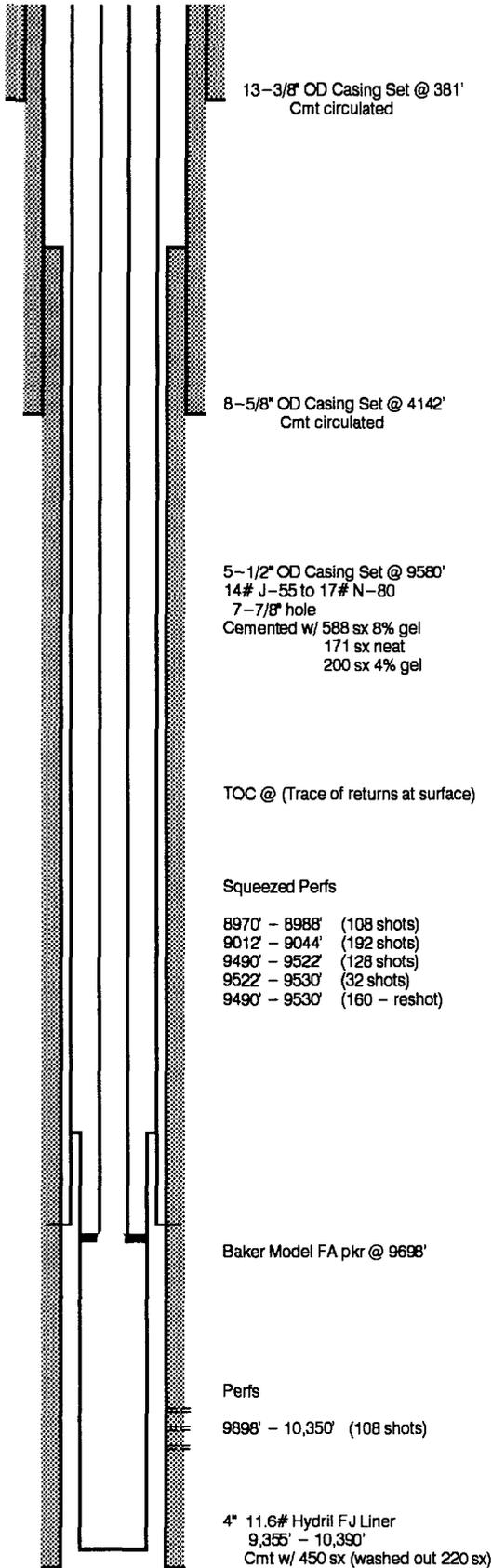
- A. 1. Name and Location: Chem State Well No. D01
1980' FSL & 660' FWL
Section 2, T-15-S, R-32-E
Lea County, New Mexico
2. Casing
- Surface: 13-3/8" OD, 27.3# and 48# H-40 set at 381'. (17-1/4" hole).
Cemented with 350 sacks; TOC at surface (cement circulated).
- Intermediate: 8-5/8" 24# J-55 to 32# J-55 set at 4142'. (11" hole).
Cemented with 2575 sacks. TOC at surface (cement circulated).
- Production: 5-1/2" 14# J-55 to 17# N-80 set at 9580'. (7-7/8" hole).
Cemented with 950 sacks. (Trace of cement returns).
- Liner: 4" 11.6# Hydril FJ liner from 9355'-10390'. (7-7/8" hole).
Cemented with 450 sx. TOC at 9355' (washed out 220 sx).
3. Tubing: 2-3/8" OD, 4.7# J-55 set at 8900'. (Salta lined)
4. Packer: Elder Sur-Lok Retrievable Packer set at 8900'.
- B. 1. Formation: Wolfcamp and Upper Penn, Tulk Field
2. Interval: 8970'-10350' perforated selectively
3. Original Intent: Well was drilled for oil production
4. Perforated Interval: See Schematic - Attachment 1
5. Productive Zones: Based upon mud log and electric responses there are no productive zones above the Wolfcamp interval. Based upon a confidential company 3-D seismic survey, there are no productive zones beneath the Wolfcamp.

Phillips Petroleum Company

Chem State Well No. D01

EXISTING DISPOSAL WELLBORE

PLANNED DISPOSAL WELLBORE



APPLICATION FOR AUTHORIZATION TO INJECT
 PHILLIPS PETROLEUM COMPANY
 CHEM STATE D #1

VI. WELLS WITHIN THE AREA OF INTEREST
 (RADIUS OF INVESTIGATION = 1/2 MILE)

Operator	Well Name	Location	Date Completed (DEPTH FT)	Well Type	Size (in)	Surface Casing Depth (ft)	Cement (sx)	Size (in)	Intermediate Casing Depth (ft)	Cement (sx)	Size (in)	Production Casing Depth (ft)	Cement (sx)	TOC (ft)	Initial Completion (zone)	Current Completion (zone)	Attachment
Phillips Petroleum Co.	Chem State #2	2240' FNL & 660' FEL Sec 3, T-15-S, R-32-E Lea County, NM	28 November 1952 (9875)	oil	13-3/8	385	350	8-5/8	4120	2800	5-1/2	9911	1360	c/c	9500-9872 (Wolcamp)	no change	Attachment 2
	Chem State #7	660' FSL & 660' FEL Sec 3, T-15-S, R-32-E Lea County, NM	31 August 1980 (13551)	oil	13-3/8	430	450	9-5/8	4300	950	5-1/2	13531	1250	9300 c	13505-13531 (Devonian)	9847-9861 (Wolcamp)	Attachment 2
Santa Fe Operating Partners, LP	State NM 2 #1	660' FSL & 660' FWL Sec 3, T-15-S, R-32-E Lea County, NM	27 July 1981 (13535)	gas	13-3/8	420	450	8-5/8	4120	1400	5-1/2	12434	1290	7960 c	12240-12278 (Morrow)	plugged	Attachment 3

TOC - c - calculated w/ a 50% safety factor
 - c/c - cement circulated

**WELL SERVICE APPROVAL - NON AFE
PHILLIPS PETROLEUM COMPANY--PERMIAN BASIN REGION**

Date October 6, 1993

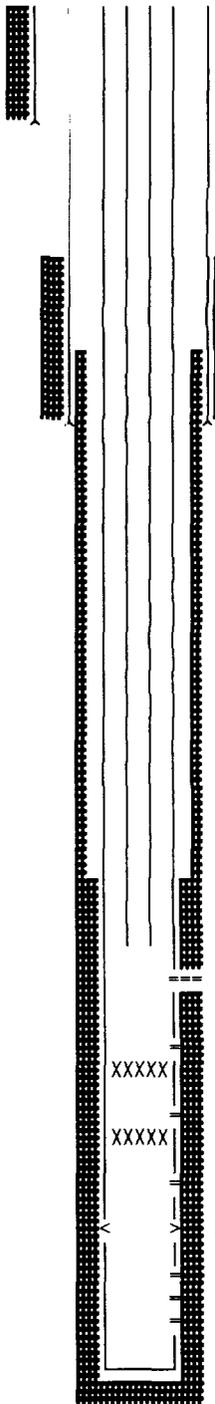
RKB @ 4300
CHF @ _____
GL @ 4287

Area North Subarea Lovington
Lease & Well No. Chem State #7, API # 30 025 26710 0003
Legal Description 660' FSL and 660' FEL, Section 3, T15S, R32E
Lea County State: New Mexico
Field Tulk Wolfcamp
Status: PM BOPD BWPD MCFD
Tbg. _____
Other _____

Date Drilled: 9-05-80
Hole/Casing Condition _____
Stimulation History: _____

Workover Proposal: _____

Justification:



13-3/8" 54.5# @ 430'
cmt'd w/450 sxs
TOC Circ.

9-5/8" 40# K-55 @4300'
Cmt'd w/950 sxs
TOC @ 100' (T.S.)

Wolfcamp perfs:
9847' - 9861' (28 shots)

Morrow perfs:
11.842 - 11.853' (sqzd)
CIBP @ 12.120'
12.180-12.183' (4 squeeze holes)
12.292 - 12.300'

XXXXX

XXXXX

Mississippian perfs:
12.366 - 12.390' (2 JSPF)
12.415 4 holes (set EZSV ret. @ 12.405')
DV tool @ 12.526' (didn't open) TOC @12.235'

Devonian perfs:
13.480 - 13.485' (sqzd '81)
13.505 - 13.512' (sqzd '80;reperf:sqzd '81)
13.523 - 13.531' (sqzd '80)
5-1/2" 17# N-80 to 20# N-80 @ 13.531'
Cmt'd w/1600 sxs

TD = 13551'
PBTD = 11672'



GP.O.BOX 2187
HOBBS, N.M. 88240

PHONE: (505) 393-7726

WATER ANALYSIS REPORT

Report for: Randall Smith	Date sampled: 9-24-93
cc: Pat Culpepper	Date reported: 10-5-93
cc: Scott Malone	Lease or well # : Prd.H2O Chem.St.
cc:	County: State:
Company: Phillips	Formation:
Address:	Depth:
Service Engineer: Kenny Kearney	Submitted by: Kenny Kearney

CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	74000	2087
Iron (Fe) (total)	25.0	
Total hardness	13600	
Calcium (Ca)	3448	172
Magnesium (Mg)	1215	98
Bicarbonates (HCO3)	122	2
Carbonates (CO3)	n/a	
Sulfates (SO4)	944	20
Hydrogen sulfide (H2S)	n/a	
Carbon dioxide (CO2)	43	
Sodium (Na)	42307	1839
Total dissolved solids	122037	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	
Specific Gravity	1.087	
Density (#/gal.)	9.059	
pH	6.200	
IONIC STRENGTH	2.25	

Stiff-Davis (CaCO3) Stability Index :
 $SI = pH - pCa - pAlk - K$

- SI @ 86 F = -0.74
- 104 F = -0.51
- 122 F = -0.25
- 140 F = +0.04
- 158 F = +0.36

This water is 2761 mg/l (-67.36%) under ITS CALCULATED
 CaSO4 saturation value at 82 F.
 SATURATION= 4099 mg/L PRESENT= 1338 mg/L

REPORTED BY MOSES S. JIMENEZ
 LAB TECHNICIAN

Application for Authorization to Inject

PHILLIPS PETROLEUM COMPANY
CHEM STATE WELL NO. D01

IX. PROPOSED STIMULATION PROGRAM

The Wolfcamp will be perforated from 9870'-8988' and from 9012'-9044'. The current perforations (9898'-10350') will remain open. The entire interval will be acidized with 1,800 gallons of 15% NeFe HCl.

X. LOGGING DATA

Well logs were filed after the well was drilled in 1951 and when the liner was run in 1969. Well was called the Pello State A.

XI. FRESH WATER ANALYSIS

Fresh Water Well Location- See map of radius of investigation. Only 1 source of fresh water could be located in the area.

Fresh Water Analysis- See Attachment 5.

XII. AFFIRMATIVE STATEMENT

All available geological and engineering data has been examined and no evidence of open faults or any other hydrological connection between the injection zone and underground source of drinking water was found.



GP.O.BOX 2187
HOBBS, N.M. 88240

PHONE: (505) 393-7726

WATER ANALYSIS REPORT

Report for: Randall Smith	Date sampled: 9-24-93
cc: Pat Culpepper	Date reported: 10-5-93
cc: Scott Malone	Lease or well # : Frsh.H2O NE Ch.St.
cc:	County: State:
Company: Phillips	Formation:
Address:	Depth:
Service Engineer: Kenny Kearney	Submitted by: Kenny Kearney

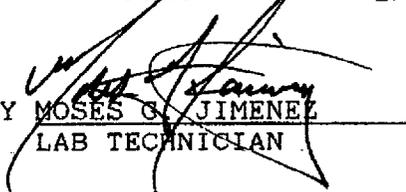
CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	700	20
Iron (Fe) (total)	0.0	
Total hardness	310	
Calcium (Ca)	104	5
Magnesium (Mg)	12	1
Bicarbonates (HCO3)	97	2
Carbonates (CO3)	n/a	
Sulfates (SO4)	43	1
Hydrogen sulfide (H2S)	n/a	
Carbon dioxide (CO2)	n/a	
Sodium (Na)	369	16
Total dissolved solids	1327	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	

Specific Gravity 1.000
Density (#/gal.) 8.334
pH 6.800
IONIC STRENGTH 0.03

Stiff-Davis (CaCO3) Stability Index :
SI = pH - pCa - pAlk - K

SI @ 86 F = -0.53
104 F = -0.31
122 F = -0.08
140 F = +0.16
158 F = +0.41

This water is 2235 mg/l (-97.30%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 2297 mg/L PRESENT= 62 mg/L

REPORTED BY  MOSES G. JIMENEZ
LAB TECHNICIAN

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of _____

one weeks.

Beginning with the issue dated

October 20, 1993

and ending with the issue dated

October 20, 1993

Kathi Bearden

General Manager

Sworn and subscribed to before

me this 21 day of

October, 1993

Charles Perrin

Notary Public.

My Commission expires

March 15, 1997

(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
October 20, 1993

Notice is hereby given of the application of Phillips Petroleum Company, 4001 Penbrook Street, Odessa, Texas 79762, Attn: L. M. Sanders, (915) 368-1488, to the Oil Conservation Division, New Mexico Energy and Mineral Department, for approval of the following Disposal well authorization for the purpose of Disposal:

Well name: Chem State Well No. DD1

Location: 1980 feet from the South line and 660 feet from the West line. Section 2, T-15-S, R-32-E, Lea County, NM. The Disposal formation is Wolfcamp and Upper Penn at a depth of 8970'-10350' below the surface of the ground.

Expected maximum injection rate is 500 bbls water per day and expected maximum injection pressure is 1794 pounds per square inch.

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

ATTACHMENT NO. XIV
Notification

I hereby certify that a complete copy of this application was sent by certified mail to the below listed persons on October 27, 1993.

Signed:

Name:

Title:

Date:

L. M. Sanders
L. M. Sanders

Supervisor, Regulatory Affairs

Oct. 27, 1993

Surface Owner:

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87501-1148

Offset Operator:

Santa Fe Energy
500 W. Illinois
Midland, Texas 79701



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

'93 NOV 4 AM 9 25

BRUCE KING
GOVERNOR

10-29-93

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 _____
- WFX _____
- PMX _____

Gentlemen:

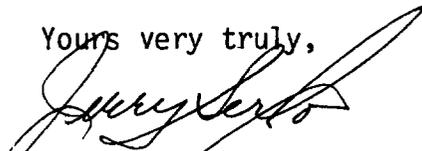
I have examined the application for the:

Phillips Petroleum Co Chem D State #1-L 2-15-32
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,


 Jerry Sexton
 Supervisor, District 1