

103650169

WFX

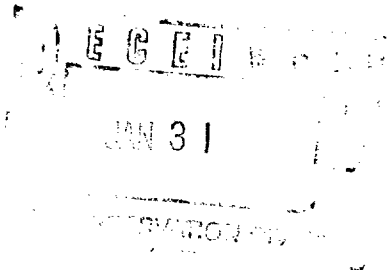
2/15/01

771

**MEWBOURNE OIL COMPANY**

P. O. BOX 7698  
TYLER, TEXAS 75711  
(903) 561-2900  
FAX (903) 561-1870

January 30, 2001



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

Re: Application for Authorization to Inject  
Querecho Plains Bone Spring Sand Unit 8-1 (30-025-25894)  
Lea County, New Mexico

Dear Sirs:

Please find attached Form C-108 for the above referenced application along with all attachments. This well would be converted from production to an injection well in the existing Querecho Plains Bone Spring Sand Waterflood Unit. There are no offset producers within the area of review. Also attached is the affidavit showing proof of publication in the Hobbs News-Sun. If any other information is needed, please let me know.

Yours truly,

Sue Hearon  
Engineering Technician

SH/hs

Attachments

cc: Bureau of Land Management w/Form C-103

## APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery            Pressure Maintenance            Disposal            Storage  
Application qualifies for administrative approval?            Yes            No
- II. OPERATOR: Mewbourne Oil Company  
ADDRESS: P. O. Box 7698 - Tyler, Texas 75711  
CONTACT PARTY: K. M. Calvert PHONE: (903) 561-2900
- 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. Attachment 1
- IV. Is this an expansion of an existing project? X Yes            No  
If yes, give the Division order number authorizing the project: R-9737
- 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. Attachment 2
- 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. Attachment 3
- VII. Attach data on the proposed operation, including: Attachment 4
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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources known to be immediately underlying the injection interval. Attachment 5
- IX. Describe the proposed stimulation program, if any. Attachment 6 NONE
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).  
Previously Submitted Attachment 7
- \*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. Attachment 8 No Fresh Water Wells within one mile
- 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 sources of drinking water. Attachment 9
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. See Attached
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief. See testimony - Case No. 10,761
- NAME: Sue Hearon TITLE: Engineering Tech.  
SIGNATURE: Sue Hearon DATE:
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

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

### 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 the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

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

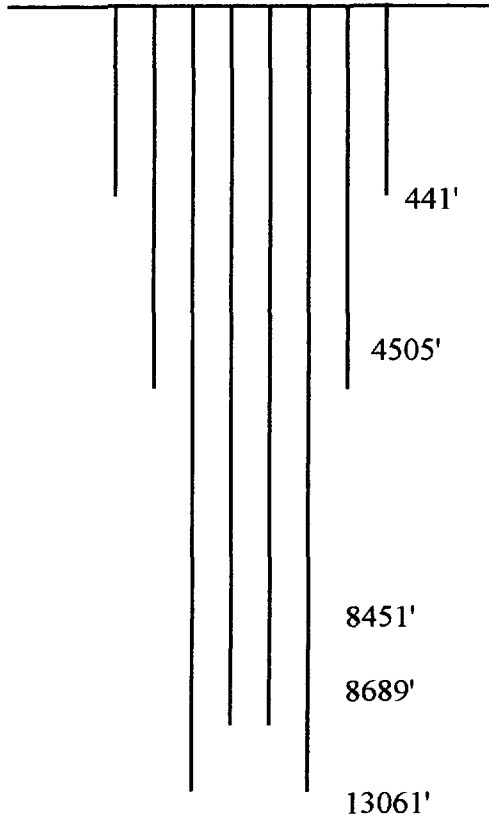
---

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.

**INJECTION WELL DATA SHEET**  
**(Attachment 1 to Form C-108)**

<u>Mewbourne Oil Company</u>		<u>QPBSSU 8-1</u>	
Operator	Lease	Well No.	
<u>1980' FSL &amp; 1980' FEL</u>	<u>27</u>	<u>18S</u>	<u>32E</u>
Location	Section	Township	Range
			<u>Lea</u>
			County
			<u>NM</u>
			State

**Schematic**



**Tubular Data**

Surface Casing

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

TOC Surface Feet determined by Circ.

Hole size 17"

Intermediate Casing

Size 8-5/8" Cemented with 1300 sx. Lite and 300 sx. Class C

TOC Surface Feet determined by Circ.

Hole size 11"

Long String

Size 5-1/2" Cemented with 280 sx. Class H

TOC 6,320 Feet determined by CBL

Hole size 7-7/8"

Total depth 13,061'

Injection interval

8506 feet to 8528 feet - perforated  
(perforated or open-hole, indicate which)

Tubing size 2-3/8" lined with Bonded PVC set in a  
(material)

Baker Loc-Set packer at 8451 feet  
(brand and model)

**Other Data**

1. Name of the injection formation Upper Bone Spring
2. Name of field or pool (if applicable) Querecho Plains - Upper Bone Springs
3. Is this a new well drilled for injection? ☐ Yes ☒ No  
If no, for what purpose was the well originally drilled? Producing well
4. 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 - See Attached Wellbore Schemat
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Queen - 3890', Morrow - 12,693'

Querecho Plains Field

1980 FSL-1980 HZ SEC 27, T-18-S, R-32-E

W Lea County, N.M.

Elevation:

KB: 19'

13 3/8" (10 ft) 48" H-20 550 SX' w/ 2% CaCl<sub>2</sub> + 1% Floe. CIRCL.

8 5/8" (48 ft) 24" 300 SX' CLASS 'C'  
8 5/8" (55 ft) 32" 1200 SX' HLC CIRCL.

441'

4505'

TUC 6320 KB' C.B.L.

Upper Bone Springs  
8506-20; 23-28 (23 holes) 1/22/84

CIBP 8800'  
Bone Springs  
8862-82 (4 holes) 10/11/81

CIBP 9700' w/ 10' cant  
Bone Springs  
9750-78 (29 holes) 4/19/80

CIBP 9550' w/ 10' cant.  
L. Bone Springs  
9910-44 (34 holes) 4/16/80

CIBP 9956' w/ 10' cant.  
L. Bone Springs  
9958-78 (20 holes) 4/5/80

CIBP 12,560 w/ 10' cant  
MORROW  
12,693-95; 12,710-19; 74-82; 84-86  
12,808-12,914.  
TD 13061'

DV Tool 12,260

cant: 1115 SX' HLC DV tool  
280 SX' H' on bottom

5 1/2" 20+17'

Handwritten signature/initials.

Handwritten signature/initials.

SH 1/18/01

**ATTACHMENT 3 TO FORM C-108**

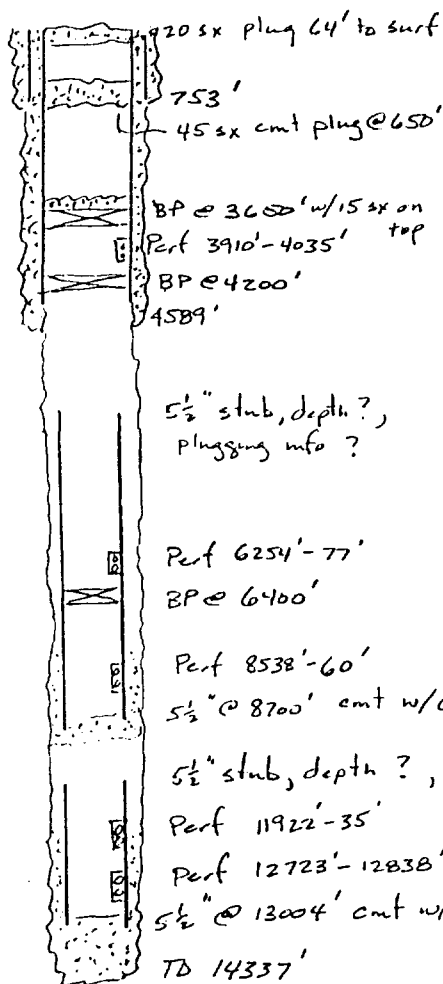
<b>OPERATOR</b>	<b>LEASE/WELL</b>	<b>LOCATION</b>	<b>TYPE</b>	<b>CONSTRUCTION</b>	<b>DATE DRILLED</b>	<b>TD</b>	<b>COMPLETION &amp; COMMENTS</b>
Mewbourne Oil Company	QPBSSU 7B-13	Sec. 27, T18S, R32E 1980' FNL & 1980' FWL	Oil	13 <sup>3</sup> / <sub>8</sub> " @ 460' CMT w/ 450 SX. 8 <sup>5</sup> / <sub>8</sub> " @ 4,248' CMT w/1500 SX. 5 <sup>1</sup> / <sub>2</sub> " @ 9,020' CMT w/1225 SX.	8/12/87	9,020'	Open perfs. @ 8504'-8534'
Mewbourne Oil Company	QPBSSU 7A-10	Sec. 27, T18S, R32E 2310' FNL & 2310' FEL	Oil	13 <sup>3</sup> / <sub>8</sub> " @ 452' CMT w/ 475 SX. 8 <sup>5</sup> / <sub>8</sub> " @ 4,542' CMT w/2600 SX. 5 <sup>1</sup> / <sub>2</sub> " @ 9,020' CMT w/1400 SX.	5/14/85	9,020'	Open perfs. @ 8501'-8530'
Mewbourne Oil Company	QPBSSU 8A-2	Sec. 27, T18S, R32E 330' FSL & 1200' FWL	Oil	13 <sup>3</sup> / <sub>8</sub> " @ 510' CMT w/ 475 SX. 8 <sup>5</sup> / <sub>8</sub> " @ 4,383' CMT w/1720 SX. 5 <sup>1</sup> / <sub>2</sub> " @ 8,745' CMT w/ 660 SX.	6/18/99	8725'	Open perfs. @ 8448'-8594'
Mewbourne Oil Company	Anadarko #1	Sec. 27, T18S, R32E 660' FSL & 1980' FWL	P&A	13 <sup>3</sup> / <sub>8</sub> " @ 753' CMT w/ 750 SX. 9 <sup>5</sup> / <sub>8</sub> " @ 4,548' CMT w/1300 SX. 5 <sup>1</sup> / <sub>2</sub> " @ 13,004' CMT w/1750 SX.	2/07/58	14,330'	Perf. & prod. 12,723'-12,838' PB @ 8657' Perf. & prod. 8538'-8560' PB @ 6400' Perf. & prod. 6154'-6277' PB @ 4200' Open perfs. @ 3910'-4035' P&A

**ITEM VI OF NEW MEXICO OCD FORM C-108**  
**PLUGGED WELL DETAIL**

MEWBOURNE OIL CO. ANADARKO FEDERAL #1  
 OPERATOR LEASE  
660 FSL, 1980 FUEL SEC 27 T18S R32E  
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE

Schematic

Tubular Data



Surface Casing  
 Size 13 3/8 " Cemented with 750 sx.  
 TOC surf. feet determined by \_\_\_\_\_  
 Hole size 16 "  
Intermediate Casing  
 Size 9 5/8 " Cemented with 1300 sx.  
 TOC Surf feet determined by \_\_\_\_\_  
 Hole size 10 3/4  
Long string (see schematic)  
 Size \_\_\_\_\_ " Cemented with \_\_\_\_\_ sx.  
 TOC \_\_\_\_\_ feet determined by \_\_\_\_\_  
 Hole size \_\_\_\_\_  
 Total depth \_\_\_\_\_  
Injection Interval (see schematic)  
 \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 (perforated or open-hole, indicate which)

5 1/2" stub, depth?,  
 plugging info?

Perf 6254'-77'  
 BP @ 6400'

Perf 8538'-60'  
 5 1/2" @ 8700' cmt w/600

5 1/2" stub, depth?, plug information?

Perf 11922'-35'

Perf 12723'-12838'

5 1/2" @ 13004' cmt w/1750 sx.

TD 14337'

Tubing size \_\_\_\_\_ lined with \_\_\_\_\_ (material) set in a  
 \_\_\_\_\_ packer at \_\_\_\_\_ feet  
 (brand and model)  
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation \_\_\_\_\_
- Name of Field or Pool (if applicable) \_\_\_\_\_
- Is this a new well drilled for injection? ☒ Yes ☐ No  
 If no, for what purpose was the well originally drilled? \_\_\_\_\_
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (amount of cement or bridge plug(s) used) \_\_\_\_\_
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. \_\_\_\_\_



**Attachment 4**  
**Application for Authorization to Inject**  
**Querecho Plains Bone Spring Sand Unit 8-1**  
**Lea Co., NM**

- ITEM VII. (1)      Anticipated average injection rate is 400 bwpd for the injector. Proposed maximum injection rate is 2000 bwpd for the unit.
- ITEM VII. (2)      The injection system will be operated as a closed system.
- ITEM VII. (3)      Proposed average injection pressure is 1700. Proposed maximum injection pressure is 1700.
- ITEM VII. (4)      See Case No. 10,761.
- ITEM VII. (5)      Not applicable.

**Attachment 5**  
**Application for Authorization to Inject**  
**Querecho Plains Bone Spring Sand Unit 8-1**  
**Lea Co., NM**

The zone being target for water injection at Querecho Plains is the First Bone Spring sand at a depth from 8506'- to 8528' in the Querecho Plains Bone Spring Sand Unit 8-1, Section 27, T18S, R32E. The First Bone Spring sands are a sequence of well consolidated sandstone, siltstone, and shale strata, with localized carbonate deposition, of Permian age cemented with calcareous material. An eight percent porosity cut off is used to determine net pay as porosity less than eight percent is considered impermeable at the existing and proposed reservoir pressure and reservoir fluid regimes. Net pay isopach maps contained in the engineering report portion of the unit plan show the areal extent of the targeted sands. Impermeable carbonate deposits exist above and below the targeted sands thus defining the permeable limits of the reservoir. All injected fluid should remain in the reservoir with the exception of cycling to the surface through well bores.

MEWBOURNE OIL COMPANY  
APPLICATION FOR AUTHORIZATION TO INJECT  
QPBSSU 8-1  
LEA COUNTY, NEW MEXICO

CERTIFICATE OF SERVICE


I, Sue Hearon, Engineering Technician, Mewbourne Oil Company, Operator of the QPBSSU 8-1, have on this 24 day of January 2001, mailed or caused to be mailed, postage prepaid a copy of the Application for Authorization to Inject to the following persons at the address shown:

Land Owner

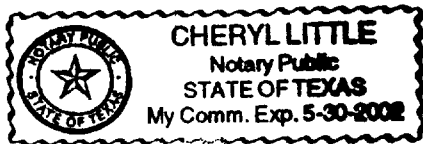
Bureau of Land Management  
P. O. Box 1397  
Roswell, New Mexico 88220

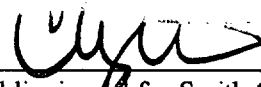
Offset Operators

None

  
Sue Hearon, Engineering Technician

Subscribed in my presence and duly sworn to before me on this 30<sup>th</sup> day of January 2001.



  
Notary Public, in and for Smith Co., TX

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a  
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 1

       weeks.

Beginning with the issue dated

January 23 2001

and ending with the issue dated

January 23 2001

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 23rd day of

January 2001

Jodi Benson

Notary Public.

My Commission expires  
October 18, 2004  
(Seal)

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

**LEGAL NOTICE**  
**January 23, 2001**  
**NOTICE OF APPLICATION FOR FLUID**  
**INJECTION WELL PERMIT**

**Mewbourne Oil Company**  
**P.O. Box 7698**  
**Tyler, Texas 75711**

has applied to the State of New Mexico, Oil Conservation Divi-  
sion, Santa Fe, New Mexico, to allow injection of produced wa-  
ter into the existing Querecho Plains Bone Springs Sand Unit  
8-1 in the Upper Bone Spring formation at a depth of approxi-  
mately 8506 feet to 8528 feet subsurface. The well is located  
1980 feet from the west line and 1980 feet from the south line  
of Section 27, Township 18 South, Range 32East, Lea County,  
New Mexico. The maximum injection rate is 400 barrels of wa-  
ter per day at an estimated maximum pressure of 1700 psi.

Interested parties must file objections or requests for hearing  
within 15 days of the publication of this notice with the Oil Con-  
servation Division, 1220 South St. Francis Drive, Santa Fe,  
New Mexico 87505. The applicants is Mewbourne Oil Compa-  
ny.  
#17870

01102551000      01546235  
Mewbourne Oil Company  
P.O. Box 7698  
TYLER, TX 75711



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

2/14/2001

**Lori Wrotenbery**

Director

Oil Conservation Division

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

RE: Proposed:

MC \_\_\_\_\_  
DHC \_\_\_\_\_  
NSL \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD \_\_\_\_\_  
WFX X \_\_\_\_\_  
PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Newbourne Oil Co QPBSSU 8 # 1-K-27-185-32e  
Operator Lease & Well No. Unit S-T-R API # 30-025-25894

and my recommendations are as follows:

OK-

Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1