

David C. 1-24-91

Bill Carr  
presented the  
attached when  
we called this  
case on 1-24-91.  
Case was TUA.  
JHM

P 913 022 135

RECEIPT FOR CERTIFIED MAIL

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(See Reverse)

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Special Delivery	
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PS Form 3800, June 1985

BEFORE EXAMINER MORROW  
OIL CONSERVATION DIVISION

STEVENS EXHIBIT NO. 3

CASE NO 10179

Dockets No. 3-91 and 4-91 are tentatively set for January 24, 1991 and February 7, 1991. Applications for hearing must be filed at least 22 days in advance of hearing date:

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 10, 1991

8:15 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

1991 JAN 9 AM 9 55

The following cases will be heard before David R. Catanach, Examiner, or Michael E. Stogner or Jim Morrow, Alternate Examiners:

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for February, 1991, from fourteen prorated gas pools in Lea, Eddy, and Chaves Counties, New Mexico.
  - (2) Consideration of the allowable production of gas for February, 1991, from four prorated gas pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 10179: (Continued from December 19, 1990, Examiner Hearing.)

Application of Stevens Operating Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation, Twin Lakes-Devonian Pool, in the perforated intervals from 7211 feet to 7405 feet (7211 feet to 7245 feet and 7392 feet to 7405 feet) in its O'Brien "C" Well No. 9 located 1870 feet from the North line and 80 feet from the West line (Unit E) of Section 1, Township 9 South, Range 28 East. Said well is located approximately 18 miles east of the Bitter Lake National Wildlife Refuge.

CASE 10199: Application of Stevens Operating Corporation for approval of salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Undesignated Diablo-Fusselman Pool, in the perforated intervals from approximately 6904 feet to 6944 feet in its Hanland Well No. 1 located 1980 feet from the South line and 2310 feet from the West line (Unit N) of Section 16, Township 10 South, Range 27 East. Said well is located approximately 1.5 miles north-northeast of Mile Marker No. 173 on U.S. Highway 380.

CASE 10200: Application of OXY U.S.A., Inc. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the base of the Wolfcamp formation to the base of the Morrow formation underlying the E/2 of Section 29, Township 21 South, Range 27 East, to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools within said vertical extent developed on 320-acre spacing which presently includes, but is not necessarily limited to, the Undesignated La Huerta-Strawn Gas Pool, Undesignated La Huerta-Atoka Gas Pool, and East Carlsbad-Morrow Gas Pool. Said unit is to be dedicated to its existing Simpson "A" Well No. 2Y located 1880 feet from the South line and 1980 feet from the East line (Unit J) of said Section 29. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles northeast of Carlsbad, New Mexico.

O'Brien "C" #9  
Unit E, Section 1, Township 9 South,  
Range 28 East, Chaves

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: STEVENS OPERATING CORPORATION

Address: P. O. Box 2203, Roswell, New Mexico 88201

Contact party: Donald G. Stevens Phone: 622-7273

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: Donald G. Stevens Title President

Signature: *Donald G. Stevens* Date: 1-2-91

\* 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.**

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**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

STEVENS OPERATING CORPORATION

O'BRIEN "C"  
LEASE

OPERATOR

9

Unit E 1870 FNL 80' FWL

Sec. 1

28E

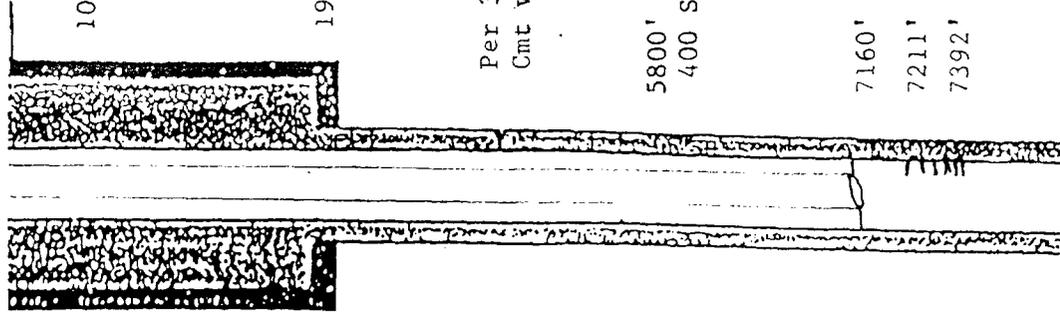
WELL NO. CONTACT LOCATION

SECTION

TOWNSHIP

RANGE

Schematic



Tabular Data

Surface Casing  
 Size 8 5/8" Cemented with 900 sxs.  
 TOC 85' + 1" 4.5 yds. feet determined by Temperature Survey  
 Hole size 12 1/4"

Intermediate Casing  
 Size " Cemented with sxs.  
 TOC feet determined by

Long string  
 Size 5 1/2" Cemented with 400 sxs.  
 TOC 5800 & 1030 feet determined by Temperature Survey  
 Hole size 7 7/8"  
 Total depth 7468'

Injection interval  
 7211 - 7245 feet, 7392 - 7405 feet  
 (perforated or open-hole, indicate which)

Per 3300-3302, Squeeze  
Cmt w/300 sxs, Drillout

5800' TOC  
400 SXS CMT

7160' PROPOSED PKR

7211' - 7245'

7392' - 7405'

Tubing size 2 3/8" lined with \_\_\_\_\_ Corrosion Inhibitor \_\_\_\_\_ set in a \_\_\_\_\_  
 (material)

5 1/2" Baker Lockset Nickel Plated \_\_\_\_\_ packer at \_\_\_\_\_ 7160 \_\_\_\_\_ feet  
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Twin Lakes Devonian

2. Name of Field or Pool (if applicable) \_\_\_\_\_

3. Is this a new well drilled for injection?  Yes  No

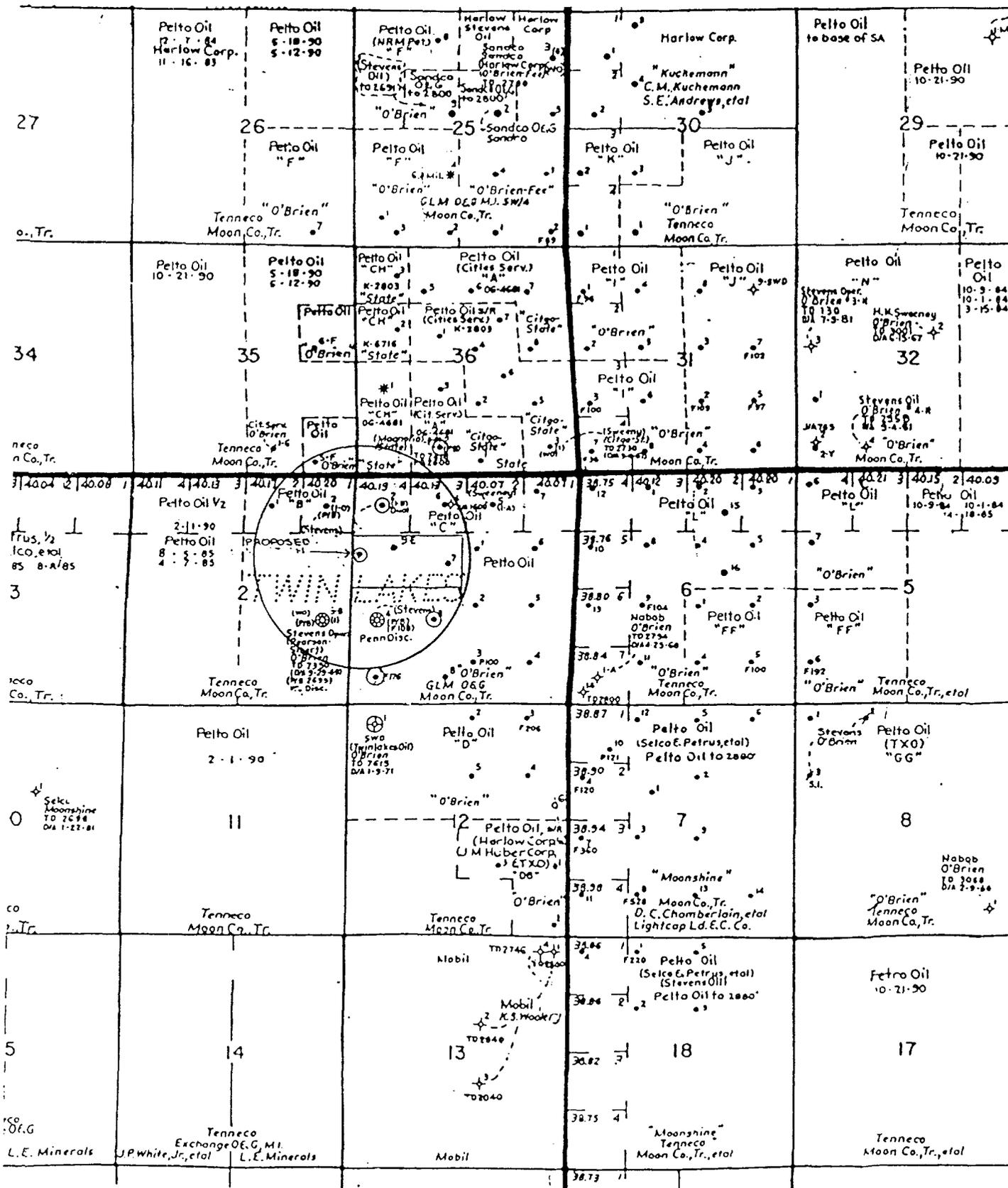
If no, for what purpose was the well originally drilled? Oil Production in Devonian

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)

3300' - 3302' = Set CIBP @ 3380' W/ 300 SXS Cement Bond Log Showed TOC @ 1030'

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. San Andres 1900' ± Mississippian 6970' ± Devonian 7201' ±

# C-108 PARAGRAPH V



⊙ = Wells drilled to Devonian

Note: All Pelto Oil Company leases are now owned by Energy Development Corporation.

Stevens Operating Corporation  
NMOCD Case 10179  
Exhibit 1

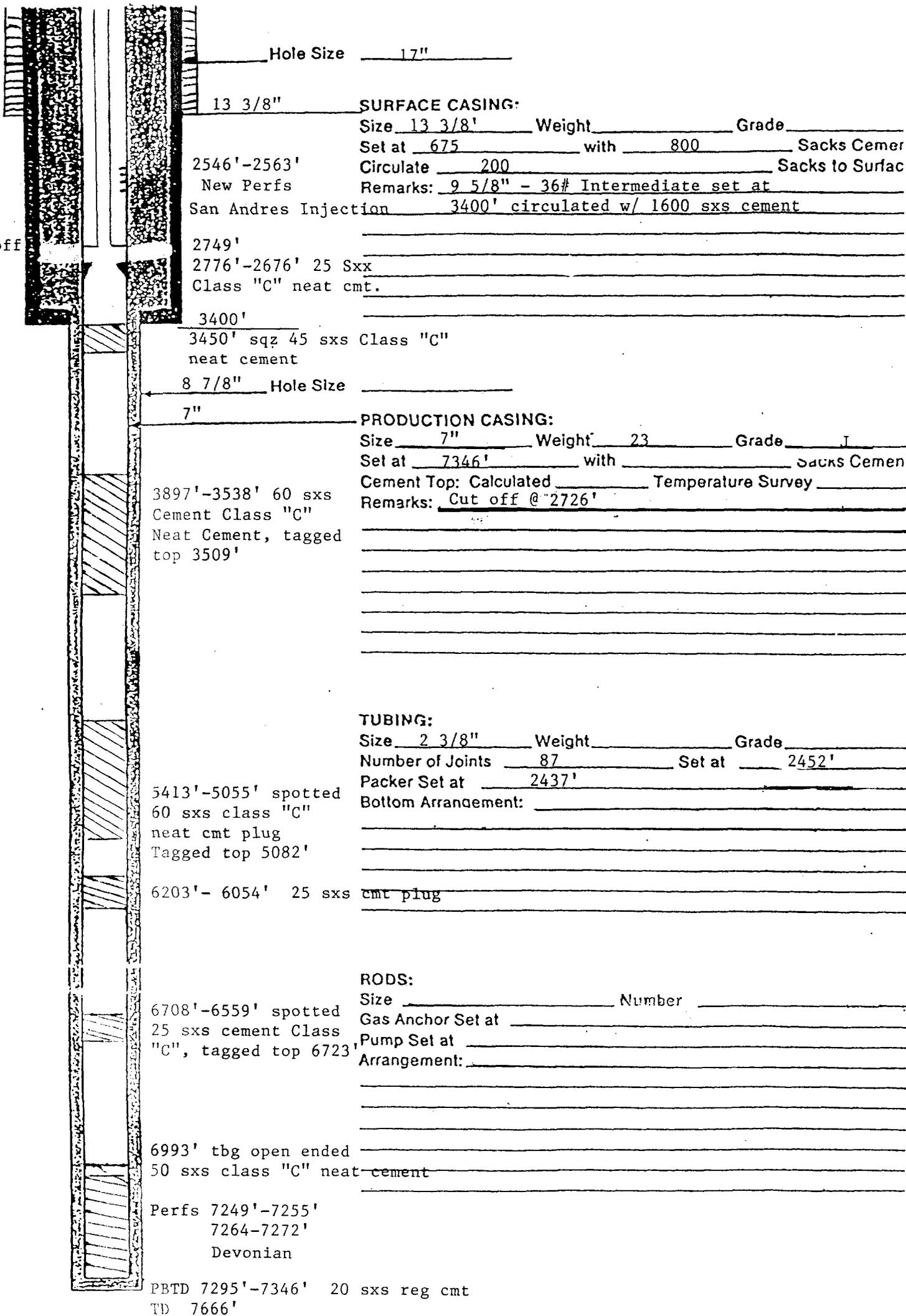
**C-108 PARAGRAPH VI**

**Attached tabulation of all wells with schematic.**

# WELL BORE SKETCH

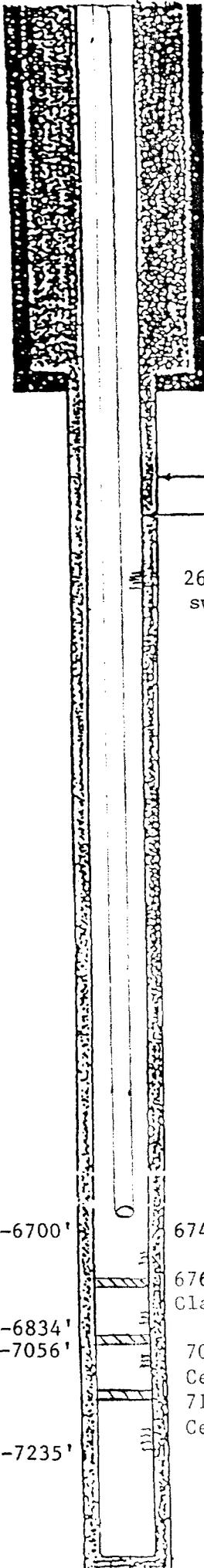
(Stevens Oper.

OPERATOR/LEASE/WELL Energy Development Corporation/O'Brien "C" #2 Corp. orig)  
 LOCATION Unit D, 660' FNL, 660' FWL, Section 1, Township 9 South, Range 28 East  
 FIELD/POOL Twin Lakes / Devonian, San Andres  
 PLUG BACK DEPTH 2676' KB 3947' ELEVATION 3936 GL



# WELL BORE SKETCH

OPERATOR/LEASE/WELL Stevens Operating Corporation/O'Brien "C" #4  
 LOCATION Unit L, Section 1, Township 9S, Range 28 East, 1980' FSL, 745' FWL  
 FIELD/POOL Twin Lakes / Devonian, Atoka, Pennsylvanian  
 PLUG BACK DEPTH \_\_\_\_\_ KB \_\_\_\_\_ ELEVATION 3938GL



Hole Size 12 1/2"

**SURFACE CASING:**

Size 8 5/8" Weight \_\_\_\_\_ Grade \_\_\_\_\_  
 Set at 1970' with 870 Sacks Cement  
 Circulate \_\_\_\_\_ Sacks to Surface  
 Remarks: \_\_\_\_\_

Hole Size 7 7/8"

**PRODUCTION CASING:**

Size 5 1/2" Weight \_\_\_\_\_ Grade \_\_\_\_\_  
 Set at 7235' with 700 Sacks Cement  
 Cement Top: Calculated \_\_\_\_\_ Temperature Survey  
 Remarks: San Andres, Squeeze w/150 sxs Class H  
Cement. Atoka - Squeeze w/75 sxs Class H Cement

2690' Squeeze w/150 sxs Class "H" Cmt

**TUBING:**

Size 2 3/8" Weight 4.7# Grade \_\_\_\_\_  
 Number of Joints 205 Set at 6744'  
 Packer Set at \_\_\_\_\_  
 Bottom Arrangement: \_\_\_\_\_

**RODS:**

<p>Perf 6694'-6700'</p> <p>Perf 6831'-6834'</p> <p>Perf 7038'-7056'</p> <p>Perf 7199'-7235'</p>	<p>6744' tbg open ended</p> <p>6760' Retainer, 75 sxs Class "H" Cement</p> <p>7000' CIBP W/bailer Cement</p> <p>7106' CIBP W/bailer Cement</p>	<p>Size _____ Number _____</p> <p>Gas Anchor Set at _____</p> <p>Pump Set at _____</p> <p>Arrangement: _____</p>
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# WELL BORE SKETCH

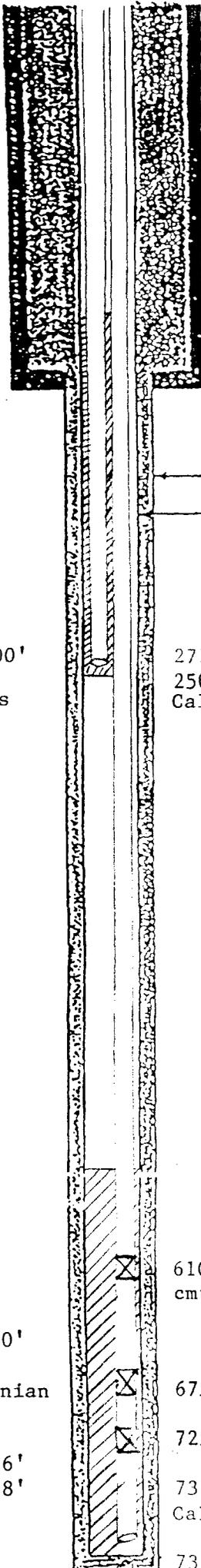
(Stevens Operating)

OPERATOR/LEASE/WELL Energy Development Corporation/O'Brien "C" #3 (Corp. orig.)

LOCATION Unit K, 1980' ESL, 1980 FWL, Section 1, Township 9 South, Range 28 East

FIELD/POOL Twin Lakes / Devonian/San Andres

PLUG BACK DEPTH \_\_\_\_\_ KB \_\_\_\_\_ ELEVATION 3951 RT



Hole Size 11"

**SURFACE CASING:**

Size 8 5/8" Weight 24# Grade \_\_\_\_\_  
 Set at 1957' with 700 Sacks Cement  
 Circulate to surface Sacks to Surface \_\_\_\_\_  
 Remarks: \_\_\_\_\_

8 5/8" 24# Csg set @ 1957'  
 700 sxs cmt circ.

Hole Size 7 7/8"

**PRODUCTION CASING: #1**

Size 2 7/8" Weight 6.5# Grade J 55  
 Set at 7315' with 400 Sacks Cement  
 Cement Top: Calculated 5800' Temperature Survey \_\_\_\_\_  
 Remarks: \_\_\_\_\_

2585'-2600'  
 Perf  
 San Andres

2718' 2 7/8" Tbg Set  
 250 Sxs "H" Cmt  
 Calc top 1800'

**Production Csg #2**

~~XXXXXXXX~~  
 Size 2 7/8" Weight 6.5# Grade J 55  
 Number of Joints \_\_\_\_\_ Set at \_\_\_\_\_  
 Packer Set at \_\_\_\_\_  
 Bottom Arrangement: 250 sxs cement, calc top 1800'

**RODS:**

Size \_\_\_\_\_ Number \_\_\_\_\_  
 Gas Anchor Set at \_\_\_\_\_  
 Pump Set at \_\_\_\_\_  
 Arrangement: \_\_\_\_\_

6720'-6730'  
 Perfs  
 Pennsylvanian

6750' CIBP

Perfs  
 7272'-7286'  
 7292'-7298'  
 Devonian

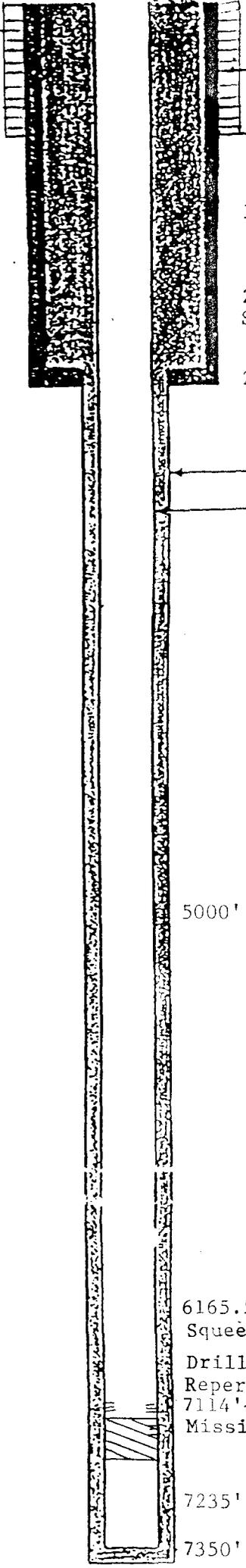
7250' CIBP

7315' 2 7/8" 400 sxs cement  
 Calc top 5800'

7316' 2 7/8" Tbg

# WELL BORE SKETCH

OPERATOR/LEASE/WELL Stevens Operating Corporation/ O'Brien "B" #3  
 LOCATION Unite I, 1980' ESL, 660' FEL, Section 2, Township 9 South, Range 28 East  
 FIELD/POOL Twin Lakes / Mississippian  
 PLUG BACK DEPTH \_\_\_\_\_ KB \_\_\_\_\_ ELEVATION 3950 GR



Hole Size 17 1/2"

**SURFACE CASING:**

Size 11 3/4" Weight 42# Grade J  
 Set at 380' with 350 Sacks Cement  
 Circulate \_\_\_\_\_ Sacks to Surface  
 Remarks: \_\_\_\_\_

1800' TOC  
750 SXS

2580'-2610'  
San Andres Squeezed  
W/25 SXS CMT  
2758' Drill out

Hole Size 12 1/4"

**INTERMEDIATE PRODUCTION CASING:**

Size 8 5/8" Weight \_\_\_\_\_ Grade J  
 Set at 2758' with 750 Sacks Cement  
 Cement Top: Calculated 1800' Temperature Survey \_\_\_\_\_  
 Remarks: \_\_\_\_\_

5000' TOC

**TUBING: X Production Casing:**

Size 4.5 Weight 11.6# Grade J  
 Set at Number of Joints 7350' Sacks w/500 SXS Cement  
~~Bottom Arrangement:~~ Calculated top 5000', After Perf 6165', 6173'  
 Bottom Arrangement: \_\_\_\_\_ Squeeze w/150 sxs Class C  
 Cement top 5000'

**RODS:**

Size \_\_\_\_\_ Number \_\_\_\_\_  
 Gas Anchor Set at \_\_\_\_\_  
 Pump Set at \_\_\_\_\_  
 Arrangement: \_\_\_\_\_

6165.5'-6173.5'  
Squeeze Cmt W/150 sxs Class "C"

Drillout to 7138'  
 Reperf 7114-20 T/A  
 7114'-7162' PERFS  
 Mississippian Squeezed

7235' PBTD

7350' TD

## **C-108 PARAGRAPH VII**

- 1. Proposed average daily rate: 600 BOPD  
Proposed maximum daily rate: 1800 BOPD**
- 2. The system is closed with a gas blanket on all storage tanks**
- 3. Proposed average injection pressure is 0  
Proposed maximum injection pressure is 750**
- 4. Analysis of injection water is attached**
- 5. The disposal zone (Siluro-Devonian) formation water is the same as the produced formation water 1/2 mile south. The Fusselman, Devonian and Montoya formation water characteristics are substantially the same in Chaves, Roosevelt and northern Lea Counties.**

# PERMIAN

Treating Chemicals, Inc.

P. O. BOX 815  
TATUM, NM 88267  
PHONE (505) 398-4111

## WATER ANALYSIS REPORT

Company Stevens Operating Corporation Date Samples 12-4-90  
Field \_\_\_\_\_ County \_\_\_\_\_  
Lease O'Brien C State NM  
Well #1 Formation \_\_\_\_\_  
Type of Water Produced Water, B/D \_\_\_\_\_  
Sampling Point Water Knockout Sampled By Nailon

### DISSOLVED SOLIDS

CATIONS	mg/l		meq/l
Sodium, Na+(Calc)	<u>23046</u>	÷ 23	<u>1002</u>
Calcium, Ca++	<u>4600</u>	÷ 20	<u>230</u>
Magnesium, Mg++	<u>2551</u>	÷ 12.2	<u>209</u>
Barium, Ba++	_____	÷ 68.7	_____
Iron, Fe (Total	_____		_____
_____	_____		_____
_____	_____		_____

### OTHER PROPERTIES

PH 6.4  
Specific Gravity  
1.07  
H<sub>2</sub>S Negative  
Total Dissolved  
Solids 81,956  
Total Hardness  
22,000

### ANIONS

Chloride, Cl-	<u>50000</u>	÷ 35.5	<u>1408</u>
Sulfate, So <sub>4</sub> =	<u>1125</u>	÷ 48	<u>23</u>
Carbonate, Co <sub>3</sub> =	_____	÷ 30	_____
Bicarbonate, HCo <sub>3</sub> -	<u>634</u>	÷ 61	<u>10</u>
_____	_____		_____

Remarks and Recommendations \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **C-108 PARAGRAPH VIII**

Attached CNL-FDC, DLL, MFSL shows injection zone lithology to be very porous, highly permeable Fusselman and Montoya Dolomite 289' thick @ 7211' to 7468'. No known underground sources of drinking water are nearby on the basis of long-term local rancher knowledge and recorded testimony in saltwater disposal exception Application hearing in 1969.

**Schlumberger** SIMULTANEOUS COMPENSATED NEUTRON-LITHO-DENSITY

NMOCD Form C108  
Para. VIII

**Schlumberger** SIMULTANEOUS COMPENSATED NEUTRON-LITHO-DENSITY

COMPANY STEVENS OPERATING COMPANY  
WELL O'BRIEN 'C' NO. 9  
FIELD TWIN LAKE DEVONIAN  
COUNTY CHAVES STATE NEW MEXICO

LOCATION 1870' FNL & 80' FWL  
UNIT E  
APR SERIAL NO. \*\*\*TIGHT HOLE\*\*  
RECT. 1  
TWP. 9-S  
RANGE 28-E  
Other Services: LOST/OK, OIL/RO, CYBER, LSS

Permanent Datum CL Elev. 3934.4 F  
Log Measured From KB 9.0 F above Perm. Datum  
Drilling Measured From KB 9.0 F above Perm. Datum Elev. K.B. 3943.4 F D.F. G.L. 3934.4 F

Date 22-JAN-1989  
Run No. ONE  
Depth Driver 7468.0 F  
Depth Logger (Bone) 7468.0 F  
Stm. Log Interval 7468.0 F  
Top Log Interval 0.0 F  
Casing-Driller 8 5/8 @ 1010 F  
Casing-Logger 1906.0 F  
BIT Size 7 7/8"  
Type Fluid in Hole SALT GEL  
Dens. Visc. 10.00 LB/G 400 S  
pH Fld. Loss 9.0 8.0 C3

Source of Sample PIT  
Rm @ Meas. Temp. 100 CHMM @ 82.0 DEGF  
Rmf @ Meas. Temp. 087 CHMM @ 82.0 DEGF  
Rms @ Meas. Temp. 188 CHMM @ 82.0 DEGF  
Source: Rmf/Rms PRESS PRESS  
Rm @ BMT 048 CHMM @ 123. DEGF

Circulation Ended 22:00 1/21/89  
Logger on Bottom 6EE LOG  
Max. Res. Temp. 123. DEGF  
Equip. Location 8234 ROSWELL  
Recorded By SULLIVAN  
Witnessed by CHO/AMEN

COMPANY STEVENS OPERATING COMPANY  
WELL O'BRIEN 'C' NO. 9  
FIELD TWIN LAKE DEVONIAN  
COUNTY CHAVES STATE NEW MEXICO

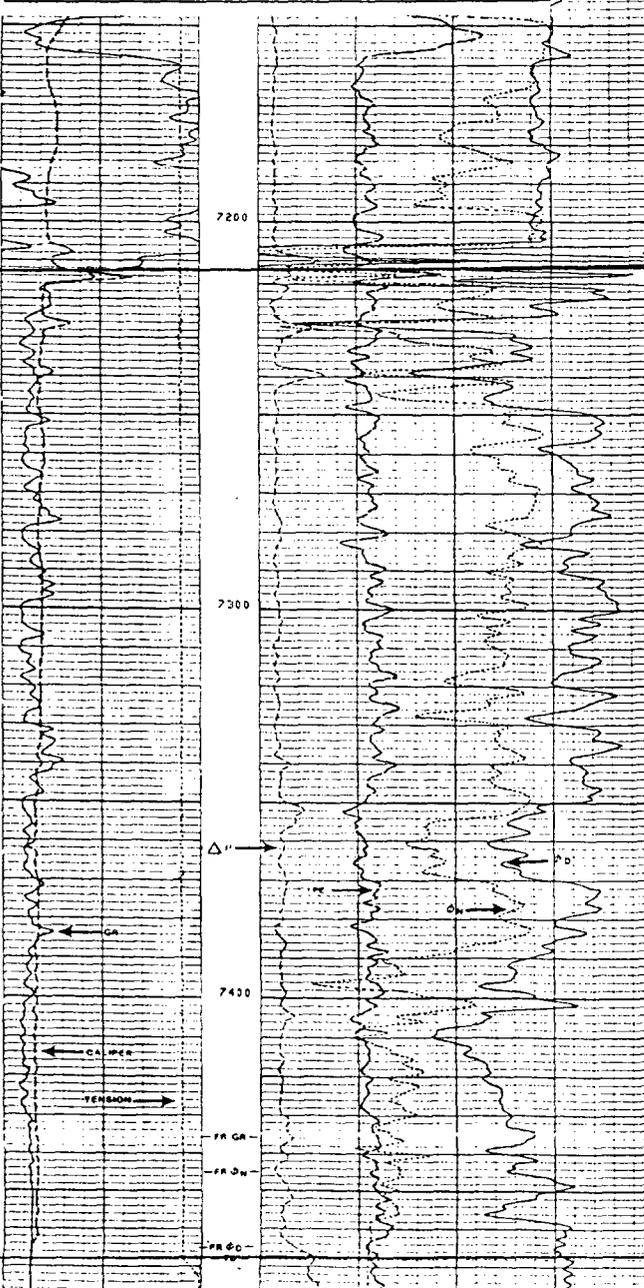
LOCATION 1870' FNL & 80' FWL  
UNIT E  
APR SERIAL NO. \*\*\*TIGHT HOLE\*\*  
RECT. 1  
TWP. 9-S  
RANGE 28-E  
Other Services: LOST/OK, OIL/RO, CYBER, LSS

Permanent Datum CL Elev. 3934.4 F  
Log Measured From KB 9.0 F above Perm. Datum  
Drilling Measured From KB 9.0 F above Perm. Datum Elev. K.B. 3943.4 F D.F. G.L. 3934.4 F

Date 22-JAN-1989  
Run No. ONE  
Depth Driver 7468.0 F  
Depth Logger (Bone) 7468.0 F  
Stm. Log Interval 7468.0 F  
Top Log Interval 0.0 F  
Casing-Driller 8 5/8 @ 1010 F  
Casing-Logger 1906.0 F  
BIT Size 7 7/8"  
Type Fluid in Hole SALT GEL  
Dens. Visc. 10.00 LB/G 400 S  
pH Fld. Loss 9.0 8.0 C3

Source of Sample PIT  
Rm @ Meas. Temp. 100 CHMM @ 82.0 DEGF  
Rmf @ Meas. Temp. 087 CHMM @ 82.0 DEGF  
Rms @ Meas. Temp. 188 CHMM @ 82.0 DEGF  
Source: Rmf/Rms PRESS PRESS  
Rm @ BMT 048 CHMM @ 123. DEGF

Circulation Ended 22:00 1/21/89  
Logger on Bottom 6EE LOG  
Max. Res. Temp. 123. DEGF  
Equip. Location 8234 ROSWELL  
Recorded By SULLIVAN  
Witnessed by CHO/AMEN



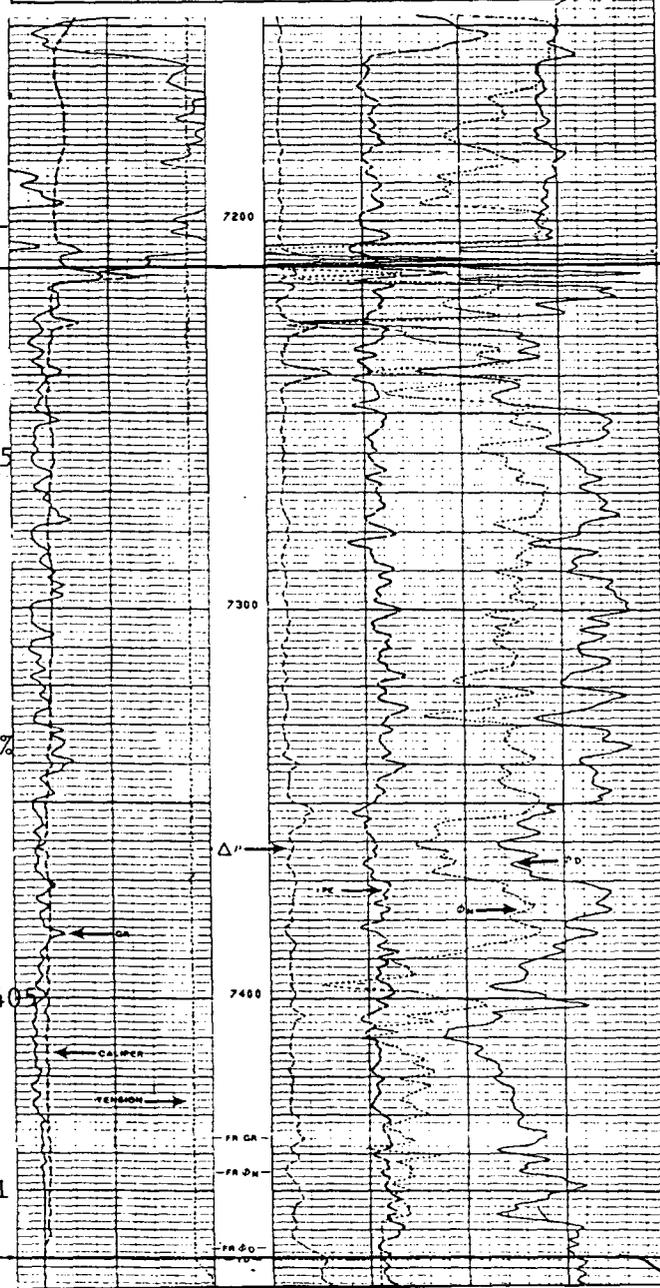
Mississippi  
ian Lime  
and Shale

Top Siluro-  
Devonian

Perfs  
7211-45  
A/5000  
Gallons  
Produced  
1185 BO, 3995  
MCF, 6583BW  
T&A  
New Perfs  
7272-76,  
7392-7405  
Re/A all  
perfs 5000  
gallons  
Pumped 100%  
Saltwater

Perfs  
7392-7405

289' Total  
Dolomite



### **C-108 PARAGRAPH IX**

The stimulation program on the injection zone was a total of 10,000 gallons 15% acid.

### **PARAGRAPH X**

Logs and tests on file OCD.

### **PARAGRAPH XI**

No fresh water wells are nearby.

### **PARAGRAPH XII**

Applicant has examined available geologic and engineering data and believes there are no open faults within five miles. In any case, there are no nearby underground drinking water wells.

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

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 10179  
Order No. R-9432

APPLICATION OF STEVENS OPERATING  
CORPORATION FOR APPROVAL OF SALT  
WATER DISPOSAL, CHAVES COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 10 and 24, 1991, at Santa Fe, New Mexico, before Examiners David R. Catanach and Jim Morrow, respectively.

NOW, on this 1st day of February, 1991, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) The applicant, Stevens Operating Corporation, seeks authority to dispose of produced salt water into the Devonian formation, Twin Lakes-Devonian Pool, in the perforated intervals from approximately 7211 feet to 7405 feet (7211 feet to 7245 feet and 7392 feet to 7405 feet) in its O'Brian "C" Well No. 9 located 1870 feet from the North line and 80 feet from the West line (Unit E) of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico.

(3) The subject well was drilled to the Devonian formation in January, 1989, was completed as a Twin Lakes-Devonian Pool producing well, and is currently non-productive in said pool.

(4) According to applicant's evidence, injection into the Twin Lakes-Devonian Pool should have no detrimental effect on producing wells within the pool.

(5) Injection should be accomplished through 2 3/8-inch tubing installed in a packer located at approximately 7160 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(6) In conjunction with the injection of produced water, the applicant should utilize a corrosion inhibiting fluid injection system to minimize and control corrosion in the tubing.

(7) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(8) The injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the surface pressure on the injection well to no more than 1442 psi.

(9) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Devonian formation.

(10) The operator should notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(11) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(12) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Stevens Operating Corporation, is hereby authorized to utilize its O'Brian "C" Well No. 9 located 1870 feet from the North line and 80 feet from the West line (Unit E) of Section 1, Township 9 South, Range 28 East, NMPM, Chaves County, New Mexico, to dispose of produced salt water into the Devonian formation, Twin Lakes-Devonian Pool, injection to be accomplished through 2 3/8-inch tubing installed in a packer located at approximately 7160 feet, with injection into the perforated intervals from approximately 7211 feet to 7405 feet (7211 feet to 7245 feet and 7392 feet to 7405 feet).

PROVIDED HOWEVER THAT, the casing-tubing annulus shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(2) In conjunction with the injection of produced water, the applicant shall utilize a corrosion inhibiting fluid injection system to minimize and control corrosion in the tubing.

(3) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the surface pressure on the injection well to no more than 1442 psi.

(4) The Director of the Division shall be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Devonian formation.

(5) The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(6) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

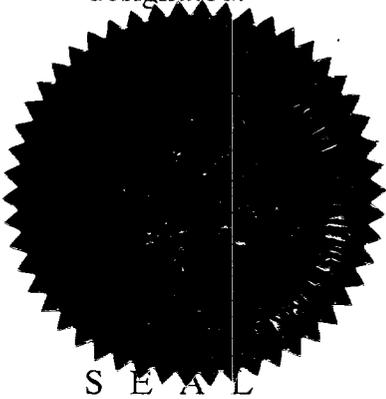
(7) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(8) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702 through 706, 708 and 1120 of the Division Rules and Regulations.

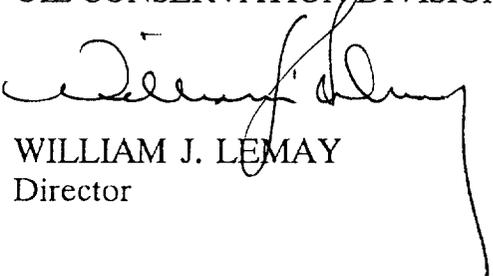
(9) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director