J. M. HUBER CORPORATION

OIL AND GAS DIVISION
1900 WILCO BUILDING
MIDLAND, TEXAS 79701

MIDLAND DISTRICT OFFICE

TELEPHONE
915-682-3794

January 21, 1985

State of New Mexico Energy & Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: J.M. Huber Corporation's
Application for Administrative
Approval to use the Cabot "Q"
State No. 1 for Salt Water
Disposal

Case 8493

Gentlemen:

J.M. Huber Corporation respectfully requests administrative approval to dispose of produced water into the San Andres formation in the Cabot "Q" State No. 1, located 1980' FSL & 560' FWL of Section 7, T15S, R35E, Lea County, New Mexico. We are proposing to dispose of approximately 320 BPD of Wolfcamp produced water from the Superior State, Superior "A" State, James O'Neill State, and James O'Neill State Com.leases into the subject well.

In support of this application, we enclose a completed Form C-108, Application for Authorization to Inject with the following items of information which are requested on the Form C-108:

1. Item III Well data for the proposed injection well.
2. Item V A map identifying the subject well, and all other wells within two miles of this well.
3. Item VI. A table listing all wells within the one-half mile radius of review which have penetrated our proposed SWD interval and a well data sheet for each well listed.
4. Item VII. Data on the proposed operation.
   Item VIII. Summary of appropriate geological data.
   Item XI Description of proposed stimulation program.
   Item XII Affirmative statement that no evidences of open faults or hydrologic connectional between the disposal zone and underground source of drinking water have been detected.
5. Item XI. Water analysis taken from two shallow fresh water supply wells located within one mile of the proposed SWD well.
6. Item XIII Proof of Notice consisting of the following:
   A. The State of New Mexico is the surface landowner of the subject well's location, and this application is hereby submitted to the State.
   B. Copies of letters sent to offset operators.
   C. A copy of our legal advertisement of this request which was published in the Lovington Daily Leader on January 11, 1985.

If you need additional information, please contact Bill Horne in this office. Your early consideration of this request will be greatly appreciated.

Very truly yours,

Robert R. Glenn
District Production Manager

WGH/sgp

enclosures

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 8493

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: J.M. Huber Corporation

Address: 1900 Wilco Bldg., Midland, Texas 79701

Contact party: Bill Horne Phone: (915) 682-3794

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: Robert R. Glenn Title District Production Manager

Signature: Robert R. Glenn Date: 1-21-85

* 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. Well logs filed upon completion in 1956 and after re-entry of well By Huber in 1981.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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 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;

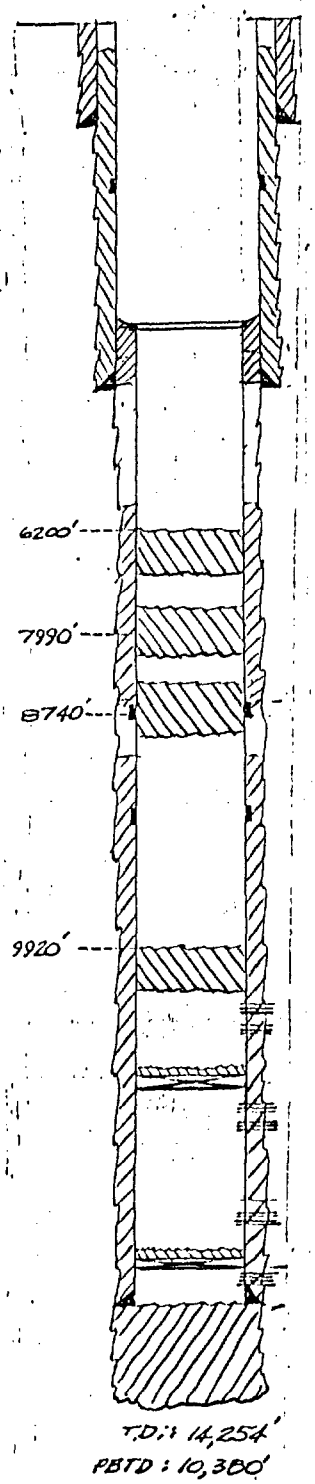
(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(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.



PROPOSED ABANDONMENT PROCEDURE

Cabot "Q" State No. 1

Lea County, New Mexico

1. Spot a 200' (27 cu.ft.) cmt. plug above perfs from 10,120' to 9920' inside 5½" csg. Use 26 sks Class "H" w/0.2% HR-5 (retarder).

2. Spot a 200' (27 cu.ft.) cmt. plug across the casing patch at 8740' inside 5½" csg. Use 26 sks Class "H" with 0.2% HR-5.

3. Spot a 200' (27 cu.ft.) cmt. plug across the top of the Abo @ 7990' inside 5½" csg. Use 26 sks Class "H" w/0.2% HR-5.

4. Spot a 200' (27 cu.ft.) cmt. plug @ 6200' inside 5½" csg. Use 26 sks Class "H" w/0.2% HR-5

CABOT STATE "Q" No 1
Morton Wolfcamp Field
Lea County, New Mexico

PROPOSED PLUG-BACK

WELLS LOCATED WITHIN 1/2-MILE RADIUS
OF REVIEW OF J.M. HUBER CABOT "Q" STATE #1 *

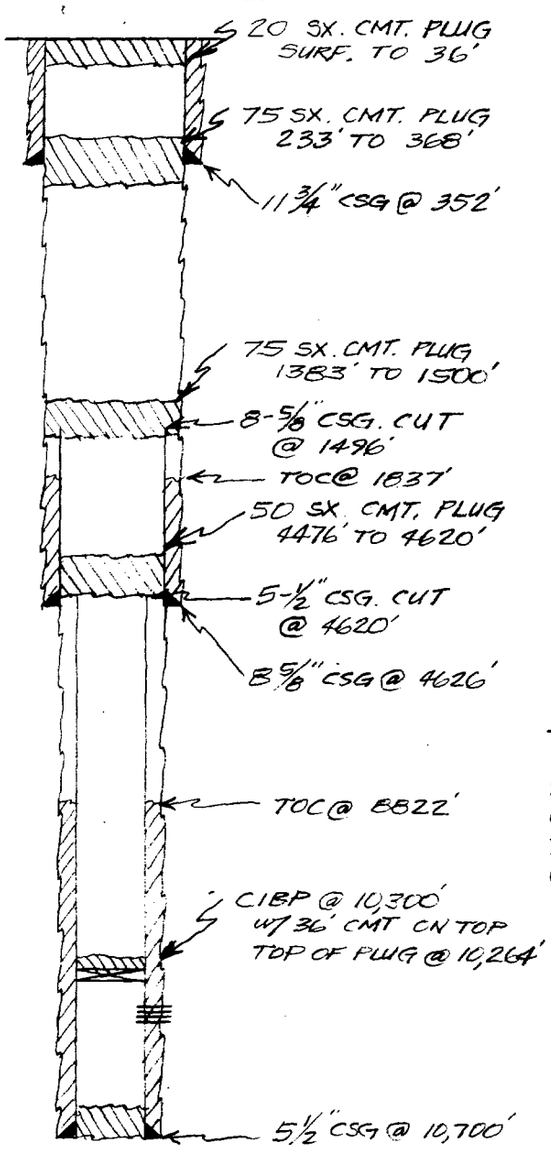
OPERATOR	LEASE & WELL NAME	LOCATION	TOTAL DEPTH	CURRENT STATUS
Union Oil Co. of Calif.	State "7" No. 1	Unit D, Sec.7,T15S,R35E	10,700'	P&A
J.M. Huber Corp.	James O'Neill St. #1	Unit E, Sec.7,T15S,R35E	10,500'	Producing
J.M. Huber Corp.	James O'Neill St. #3	Unit F, Sec.7,T15S,R35E	10,500'	Producing
J.M. Huber Corp.	Cabot "Q" State #1	Unit L, Sec.7,T15S,R35E	14,254'	SI
J.M. Huber Corp.	Superior St. #2	Unit L, Sec.7,T15S,R35E	10,500'	Producing
J.M. Huber Corp.	Superior St. #1	Unit K, Sec.7,T15S,R35E	10,500'	Producing
Great Western	Glen Cleveland #2	Unit J, Sec.7,T15S,R35E	10,618'	Producing
J.M. Huber Corp. (frmly Cabot & McAlester)	State "Q" No. 2	Unit M, Sec.7,T15S,R35E	10,445'	P&A
J.M. Huber Corp.	Superior "A" St.#1	Unit N, Sec.7,T15S,R35E	10,500'	Producing
Union Oil Co. of Calif.	Gulf Federal No. 1	Unit H, Sec.12,T15S,R34E	10,703'	SWD
J.M. Huber Corp.	Stoltz Federal #1	Unit J, Sec.12,T15S,R34E	10,400'	Producing
Union Oil Co. of Calif.	Union "A" Federal #1	Unit P, Sec.12,T15S,R34E	10,450'	Producing

* Well data sheets are attached for all wells listed.

INJECTION WELL DATA SHEET

Union Oil Co. of California	"7" State			
OPERATOR	LEASE			
1	660' FNL & FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 11-3/4" @ 352'" Cemented with 525 sx.

TOC circulated feet determined by -

Hole size 15"

Intermediate Casing

Size 8-5/8" @ 4626' Cemented with 550 sx.

TOC 1837 feet determined by calculation

Hole size 11"

Long string

Size 5½" @ 10,700' " Cemented with 400 sx.

TOC 8822' feet determined by Log

Hole size 7-7/8"

Total depth 10,700' PBTD: 10,618'

Injection interval

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

Spud: 9/8/64
Complete: 11/2/64
Perforations: 10,383'-391'
Current Status: P & A on 12/23/72

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

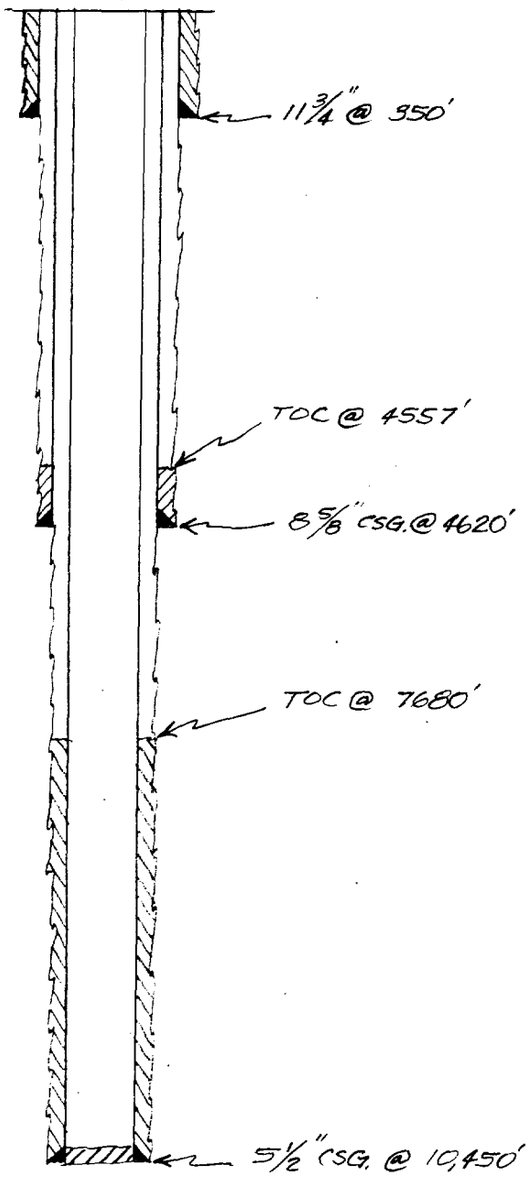
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
Union Oil Co. of California	"A" Federal			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
1	766' FSL & FEL	12	15S	34E

Schematic



Tabular Data

Surface Casing

Size 11-3/4 @ 350' " Cemented with 300 sx.

TOC Circulated feet determined by -

Hole size 15"

Intermediate Casing

Size 8-5/8" @ 4620'" Cemented with 400 sx.

TOC 4557' feet determined by Survey

Hole size 11"

Long string

Size 5½" @ 10,450' " Cemented with 400 sx.

TOC 7680' feet determined by Calculation

Hole size 7-7/8"

Total depth 10,450' PBTD: 10,419'

Injection interval

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

Spud: 6/26/66
Complete: 8/02/66
Perforations: 10,335'-369', Lower Wolfcamp
Current Status: producing

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

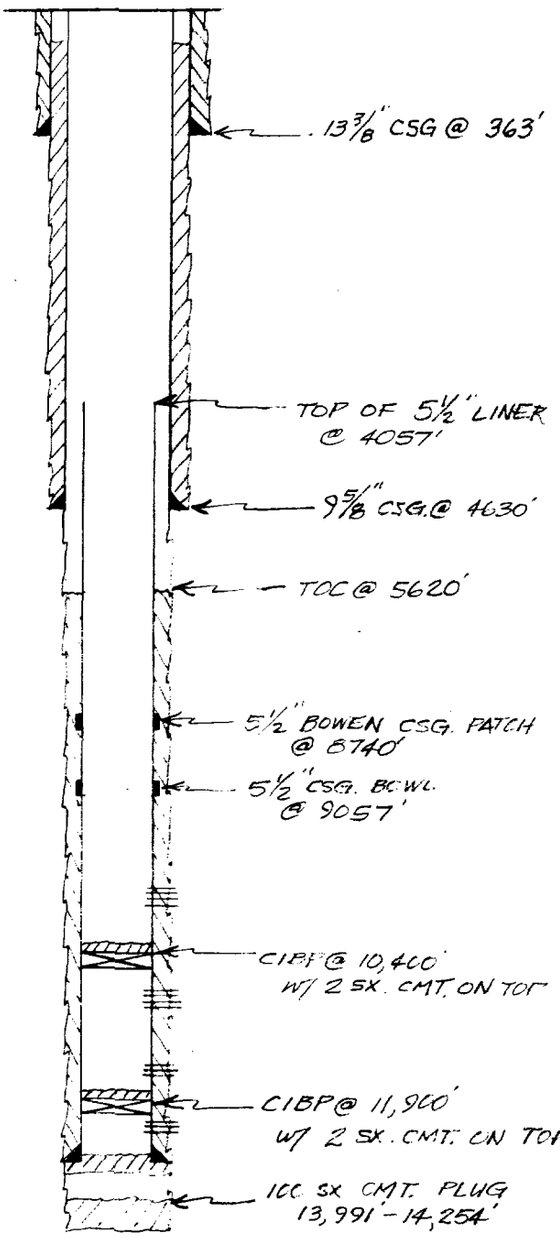
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
J.M. Huber Corp.	Cabot "Q" State			
1	1980' FSL & 560' FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @363' " Cemented with 350 sx.

TOC circulated feet determined by _____

Hole size 17½"

Intermediate Casing

Size 9-5/8" @4630' " Cemented with 2300 sx.

TOC 570' feet determined by Temp. Survey

Hole size 12¼"

Long string

Size 5½@12,160' " Cemented with 1590 sx.

TOC 5620' feet determined by Cmt. Bond Log

Hole size 7-7/8"

Total depth 14,254' PBTD: 10,380'

Injection interval (Proposed)

4630' feet to 6050 feet, perforated

(perforated or open-hole, indicate which)

NOTE: The well will be plugged back to 6200'± and the top of the 5½" liner cmt squeezed prior to conversion to SWD. (See attached schematic of proposed plug back)

Tubing size 2-7/8" lined with ICO SC-650 plastic coating (material) set in a Baker Lok-set (brand and model) packer at 5800' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Not applicable

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

If no, for what purpose was the well originally drilled? Oil well in the Strawn and Wolfcamp formations

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) Strawn: 11,964-987'; Wolfcamp: 10,304'-375'; 414'-419'; 420'-424'; 513'-547' See above diagram for plugging details.

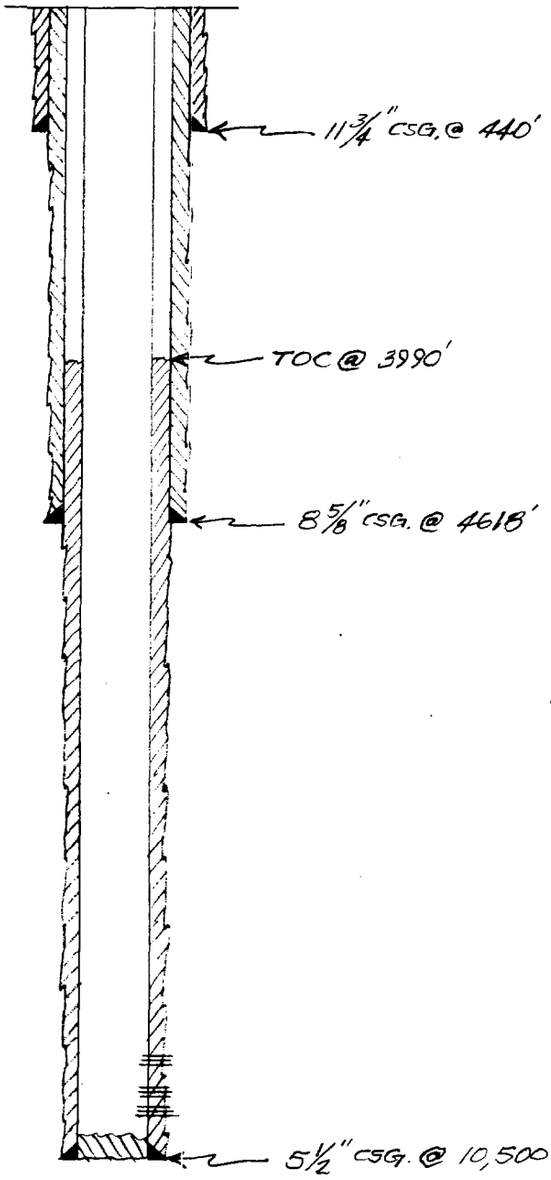
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying: none

Underlying: Wolfcamp - 10,304'

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
J.M. Huber Corporation	James O'Neill State			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
1	766' FWL & 1874' FNL	7	15S	35E

Schematic



Tabular Data

Surface Casing

Size 11-3/4" @ 440' " Cemented with 300 sx.

TOC Circulated feet determined by -

Hole size 14-3/4"

Intermediate Casing

Size 8-5/8" @4618' " Cemented with 2050 sx.

TOC Circulated feet determined by -

Hole size 11"

Long string

Size 5½" @ 10,500' " Cemented with 1175 sx.

TOC 3990' feet determined by circulation to safety jt @ 4000'

Hole size 7-7/8"

Total depth 10,500' PBTD: 10,451'

Injection interval

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

Spud: 8/22/81
Complete: 10/22/81
Perforations: 10,321'-401'
Current Status: Producing, Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

   _____

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) _____

   _____

   _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

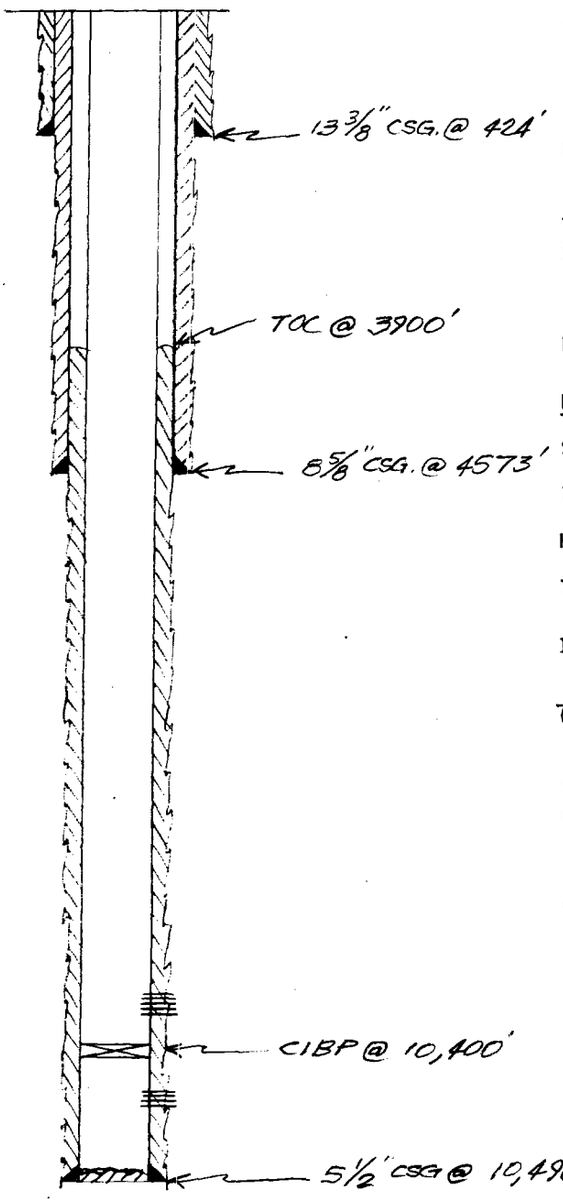
   _____

   _____

INJECTION WELL DATA SHEET

J.M. Huber Corporation	James O'Neill State			
OPERATOR	LEASE			
3	1980' FWL & FNL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @ 424' " Cemented with 640 sx.

TOC Circulated feet determined by -

Hole size 17-1/2"

Intermediate Casing

Size 8-5/8" @ 4573' " Cemented with 2000 sx.

TOC Circulated feet determined by -

Hole size 11"

Long string

Size 5-½" @ 10,498' " Cemented with 1190 sx.

TOC 3900' feet determined by Cmt. Bond Log

Hole size 7-7/8"

Total depth 10,500' PBTD: 10,400'

Injection interval

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

Spud: 4/8/84
Complete: 6/15/84
Perforations: 10,258'-10,373', 10,421'-454'
SI under CIBP @ 10,400'
Current Status: Producing, Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

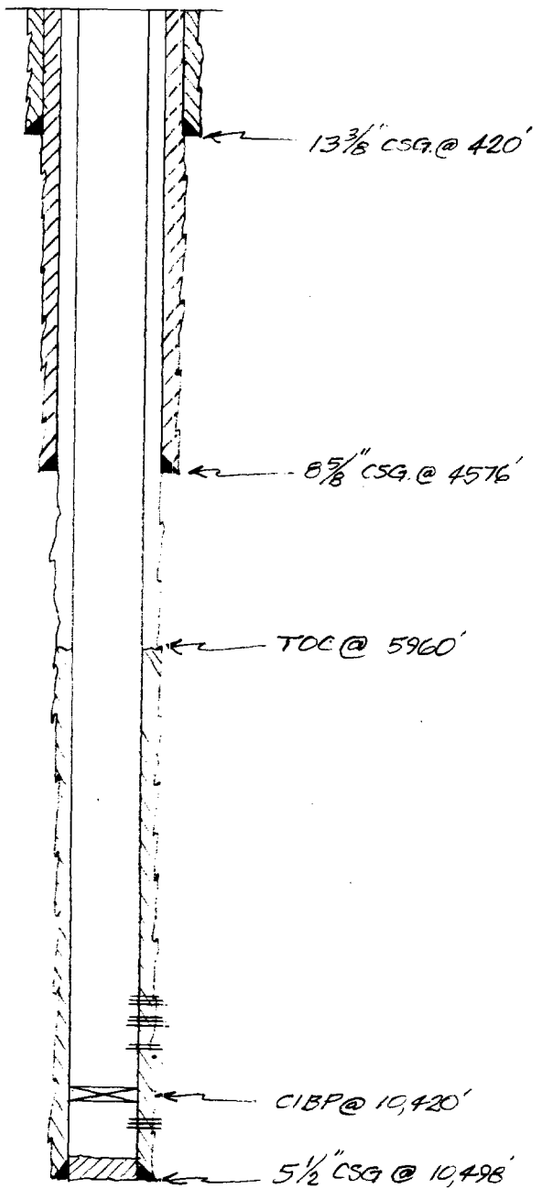
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
J.M. Huber Corporation	Superior State			
1	1980' FSL & FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @420' " Cemented with 560 sx.

TOC circulated feet determined by _____

Hole size 17½"

Intermediate Casing

Size 8-5/8" @ 4576' " Cemented with 2100 sx.

TOC circulated feet determined by -

Hole size 11"

Long string

Size 5½ @ 10,498' " Cemented with 1460 sx.

TOC 5960' feet determined by cmt Bond Log

Hole size 7-7/8"

Total depth 10,500' PBTD: 10,420'

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Spud: 11/13/83

Complete: 1/4/84

Perforations: 10,352'-416'

10,439'-443' SI under CIBP @ 10,420'

Current Status: Producing from Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

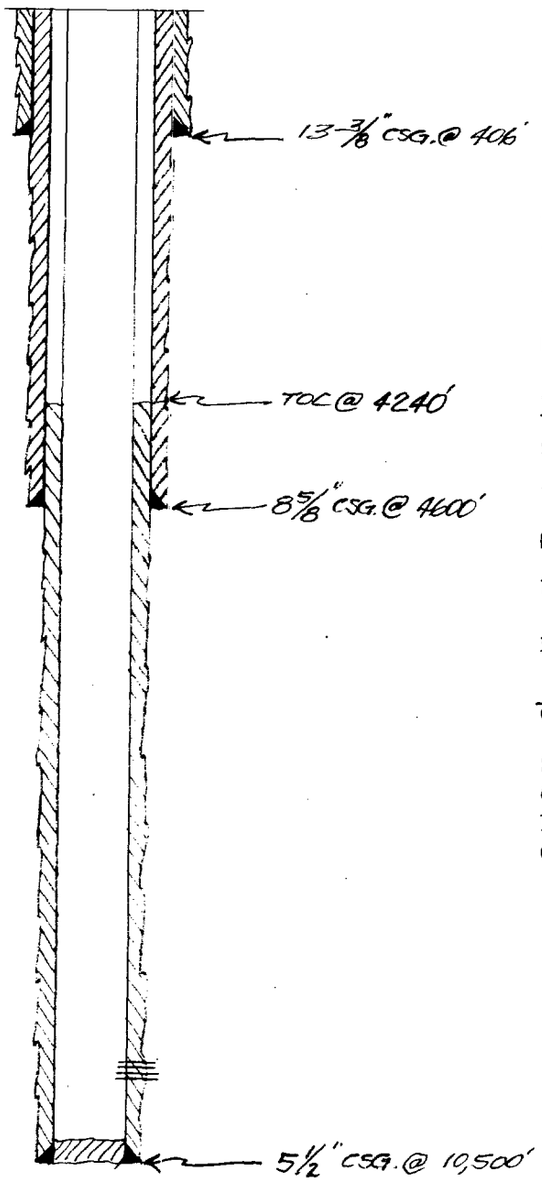
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
J.M. Huber Corporation	Superior State			
WELL NO.	**FOOTAGE LOCATION**	**SECTION**	**TOWNSHIP**	**RANGE**
2	1980' FSL & 810' FWL	7	15S	35E

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @ 406 " Cemented with 460 sx.

TOC Circulated feet determined by _____

Hole size 17½"

Intermediate Casing

Size 8-5/8" @ 4600 ' Cemented with 1900 sx.

TOC Circulated feet determined by -

Hole size 11"

Long string

Size 5½" @ 10,500 ' Cemented with 1525 sx.

TOC 4240' feet determined by Temp Survey

Hole size 7-7/8"

Total depth 10,500' PBTD: 10,456'

Injection interval

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

Spud: 8/17/84
Complete: 9/24/84
Perforations: 10,406'-411'
Current Status: Producing, Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

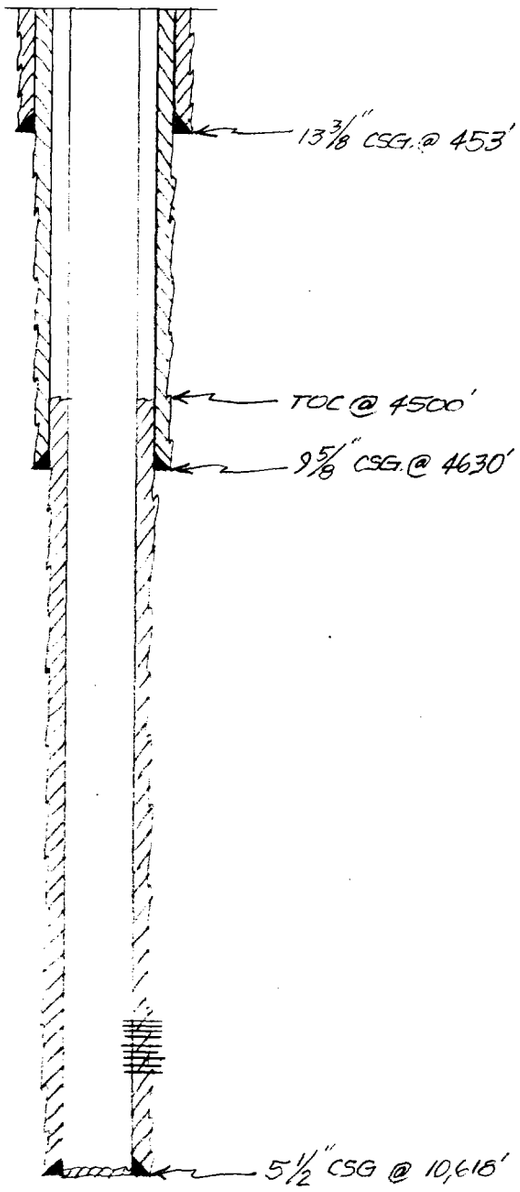
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

Great Western	Glen Cleveland			
OPERATOR	LEASE			
2	2080' FSL & FEL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8 ; 453 " Cemented with 475 sx.

TOC circulated feet determined by _____

Hole size 17 "

Intermediate Casing

Size 9-5/8" @ 4630' " Cemented with 1900 sx.

TOC circulated feet determined by _____

Hole size 12¼ "

Long string

Size 5½" @ 10,618' " Cemented with 1308 sx.

TOC 4500 feet determined by Temp. Survey

Hole size 7-7/8"

Total depth 10,618'

Injection interval

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

Spud: 7/13/84
Completion: 10/24/84
Perforations: 10,300'-402'
Current Status: Producing from Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

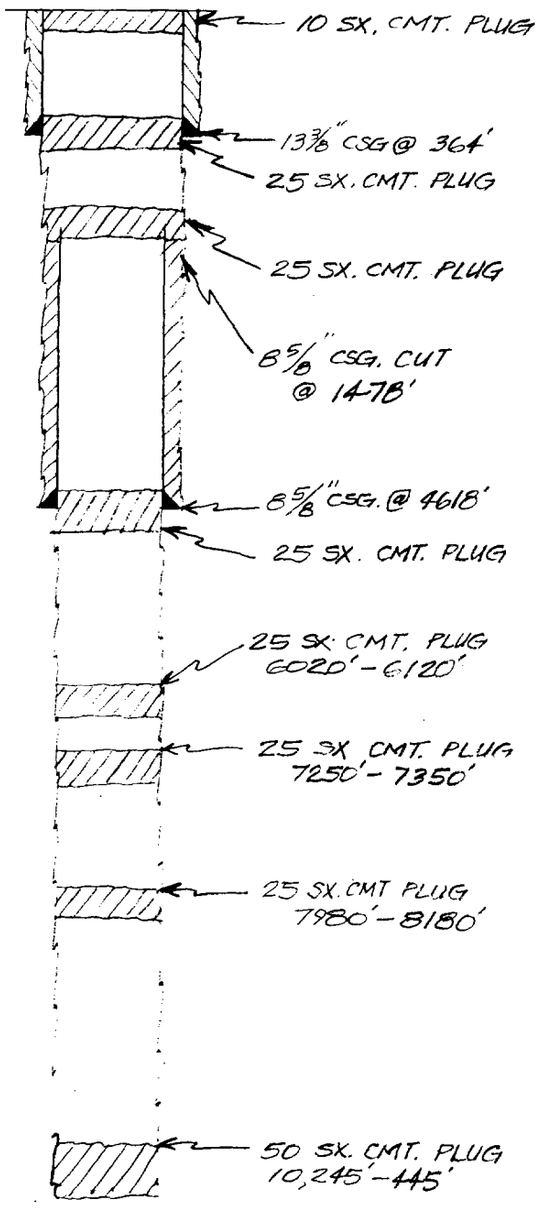
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

Cabot Corporation	"Q" State			
OPERATOR	LEASE			
2	660' FSL & 520' FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @ 364 " Cemented with 375 sx.

TOC circulated feet determined by -

Hole size 16"

Intermediate Casing

Size 8-5/8" @ 4618'" Cemented with 300 sx.

TOC _____ feet determined by _____

Hole size 10-3/4"

Long string

Size None " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size 7-7/8"

Total depth 10,445'

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Spud: 9/24/66
Complete: P & A
Perforations: None
Current Status: P & A 10/31/66

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

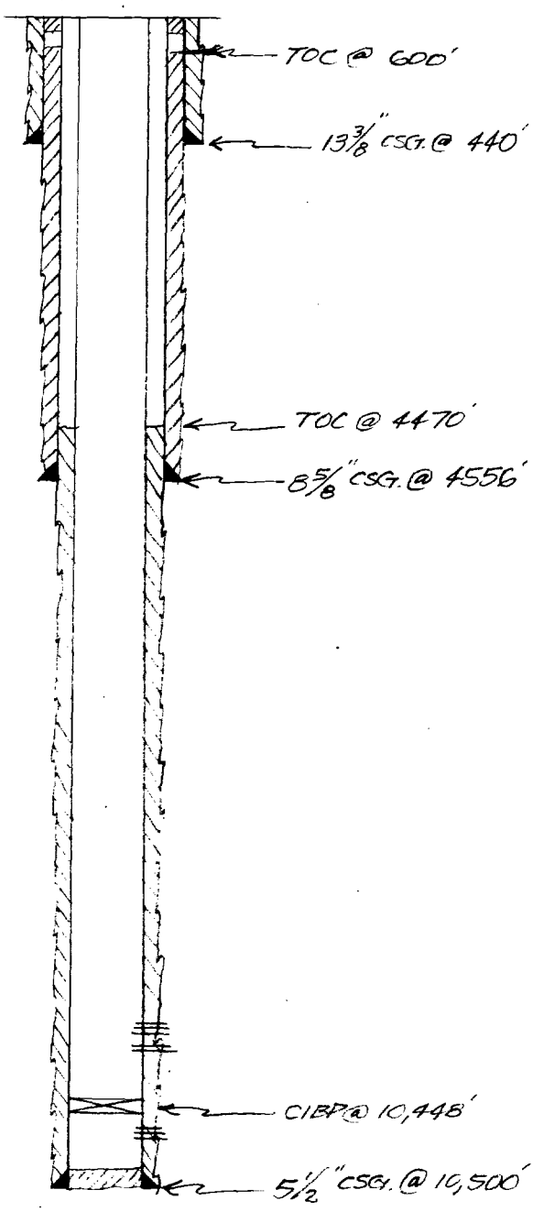
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
J.M. Huber Corporation	Superior "A" State			
1	660' FSL & 1980' FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @ 440' " Cemented with 460 sx.

TOC circulated feet determined by -

Hole size 17-½"

Intermediate Casing

Size 8-5/8" @ 4556' " Cemented with 2040 sx.

TOC 600' feet determined by Temp Survey

Hole size 11" Used 1" tbg. to cmt from 158' to surface w/140 sx.

Long string

Size 5½" @ 10,500' " Cemented with 1320 sx.

TOC 4470' feet determined by Cmt Bond Log

Hole size 7-7/8"

Total depth 10,500' PBTD: 10,448'

Injection interval

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

Spud: 9/12/84
Complete: 10/29/84
Perforations: 10,364'-373'
10,467'-473' SI under CIBP @ 10,448'
Current Status: Producing from Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

_____

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) _____

_____

_____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

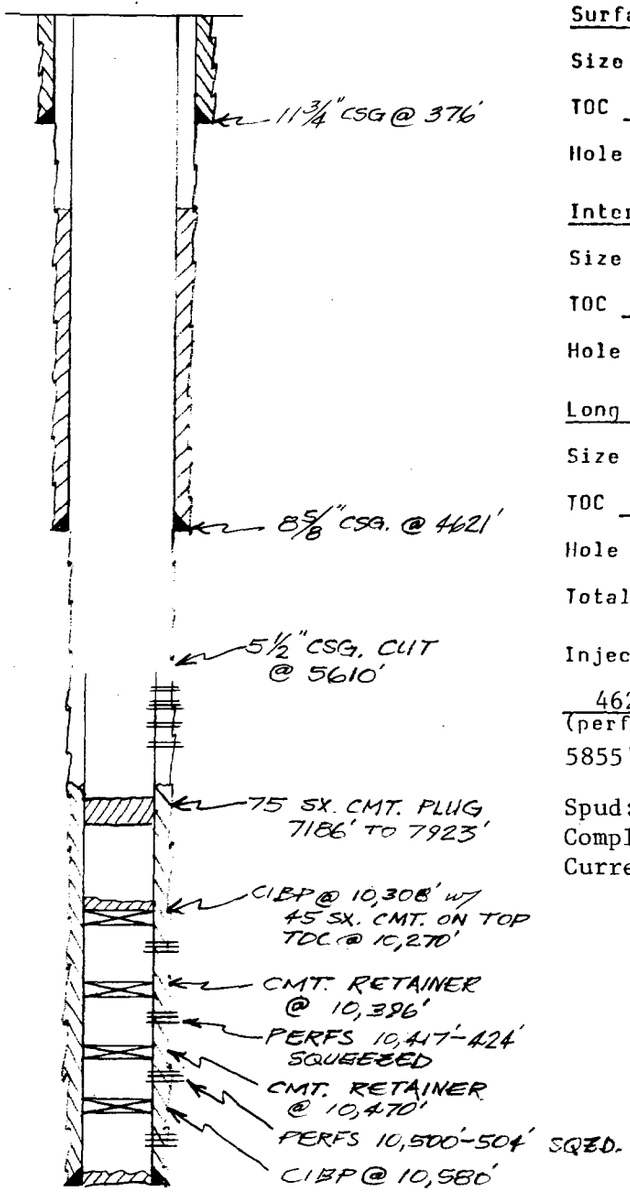
_____

_____

INJECTION WELL DATA SHEET

Union Oil Co. of California	Gulf Federal			
OPERATOR	LEASE			
1	1980' FNL & 660' FEL	12	15S	34E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 11-3/4" @ 376' " Cemented with 300 sx.

TOC circulated feet determined by -

Hole size 15"

Intermediate Casing

Size 8-5/8" @ 4621 " Cemented with 500 sx.

TOC 2575 feet determined by calculation

Hole size 11"

Long string

Size 5½" @ 10,703' " Cemented with 400 sx.

TOC 7000 feet determined by calculation

Hole size 7-7/8"

Total depth 10,703'

Injection interval

4621' feet to 5610' feet Open Hole
(perforated or open-hole, indicate which)

5855' to 6583': perforated

Spud: 11/12/64
Complete: 12/31/64
Current Status: SWD in San Andres
Lower Wolfcamp P & A in 1972

Tubing size 2-3/8" lined with Plastic Applicators 501 (material) set in a

Guiberson Unipacker VI (brand and model) packer at 4500 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) NA

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

If no, for what purpose was the well originally drilled? Lower Wolfcamp oil well was depleted and P & A.

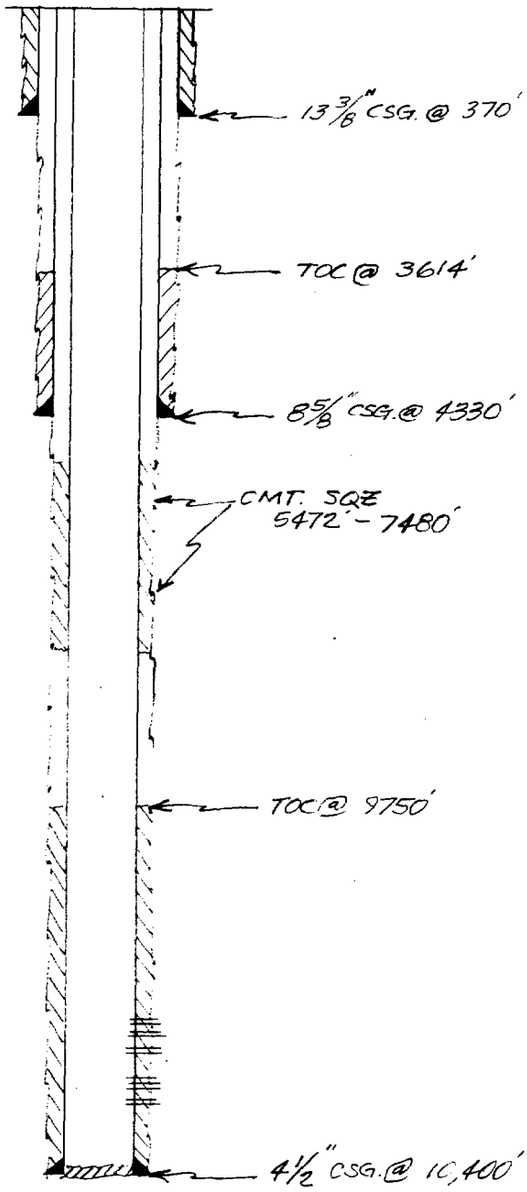
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) 10,338'-349'; 10,417'-424'; 10,500'-504'; 10,602'-607'; See schematic above for plugging details.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. No overlying zones have been identified.
The Lower Wolfcamp @ 10,338' is underlying.

INJECTION WELL DATA SHEET

J.M. Huber Corporation	Stoltz Federal			
OPERATOR	LEASE			
1	1980' FEL & 2130' FSL	12	15S	34E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8" @ 370' " Cemented with 275 sx.

TOC Circulated feet determined by _____

Hole size 17½"

Intermediate Casing

Size 8-5/8" @ 4330' " Cemented with 200 sx.

TOC 3614 feet determined by Temp. Survey

Hole size 12¼"

Long string

Size 4½" @ 10,400' " Cemented with 240 sx.

TOC 9750' feet determined by Temp Survey

Hole size 7-7/8" Holes in csg. have been repaired by cmt. squeezes from 5472' to 7480'

Total depth 10,400'

Injection interval

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

Spud: 12/13/65
Complete: 3/16/66
Perforations: 10,242'-388'
Current Status: Producing from Lower Wolfcamp

Tubing size _____ lined with _____ (material) set in a _____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

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? _____

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) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

VII. DATA ON THE PROPOSED OPERATION

1. Proposed average and maximum daily rate and volume of fluids to be injected.

   Average rate: 320 BWPD
   Maximum rate: 1000 BWPD
   Volume of fluids: Above rate until economic limit is reached

2. Whether the system is open or closed: Closed

3. Proposed average and maximum injection pressure:

   Average pressure: 100 psig
   Maximum pressure: 900 psig

4. Sources and appropriate analysis of injection fluid from the Lower Wolfcamp formation. See attached analysis.

   Compatibility with receiving formation. Formation water from the Lower Wolfcamp is being injected into the San Andres formation in the Huber Stoltz State No. 1 (M-Sec. 6, T15S, R35E) and in the Union Gulf Federal No. 1-12 (H-Sec. 12, T15S, R35E) without any apparent compatibility problems.

5. Chemical analysis of disposal zone formation water. See attached tabulation of analyses taken from various San Andres wells in Lea County, New Mexico.

VIII. SUMMARY OF GEOLOGIC DATA: The proposed injection zones in the J.M. Huber Cabot "Q" State #1, located in 1980' FSL & 560' FWL, Sec. 7, T15S, R35E, are in the Permian San Andres Formation; the subject interval occurs from 5840' (-1787) to 6050' (-1997) in that well. (See log for specific intervals) The respective tops of the San Andres Formation and Glorieta Sand occur at 4552' (-499) and 6200' (-2147). The overall interval is 210 feet thick and consists predominantly of brown-to-tan Dolomite with interbedded dense brown-to tan limestones. The dolomites vary from fine-to coarsely cyrstaline with indicated porosities ranging from 10% to 24% in the injection zones; tight carbonates with interbedded shales bound the proposed injection interval.

Injection of salt water into the proposed interval will not effect shallow fresh-water zones of the tertiary or triassic age units.

IX. DESCRIPTION OF PROPOSED STIMULATION PROGRAM

Acidize perforations 5839' to 6050' with 6000 gallons 15% NeFe HCl acid in 4 equal stages each separated by 500# rock salt in 10 bbls brine water.

XII. Available geologic and engineering data has been examined and no evidence of open faults or any other hydrologic connection exists between the disposal zone and any underground source of drinking water.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

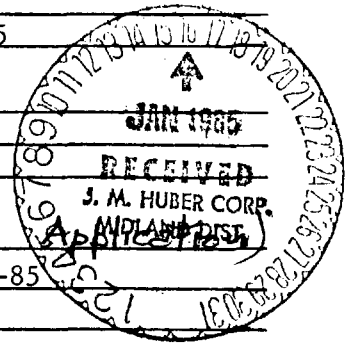
709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 185101

TO: Mr. Bill Horne
1900 Wilco Building, Midland, Texas

SAMPLE RECEIVED 1-9-85
RESULTS REPORTED 1-14-85



COMPANY J. M. Huber Corporation LEASE Superior State
FIELD OR POOL Morton
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Brine sample used in Superior State #1. 1-7-85 (Not related to Application)
NO. 2 Produced (Wolfcamp) water - taken from Superior State #2. 1-7-85
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.2152	1.0238		
pH When Sampled				
pH When Received	7.58	7.98		
Bicarbonate as HCO_3	151	1,318		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	13,200	3,100		
Calcium as Ca	630	800		
Magnesium as Mg	2,825	267		
Sodium and/or Potassium	128,908	10,813		
Sulfate as SO_4	11,467	2,880		
Chloride as Cl	199,563	15,979		
Iron as Fe	0.08	0.47		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	343,544	32,057		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	875		
Resistivity, ohms/m at 77° F.	0.042	0.240		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks This study of the above results has revealed no evidence of any detectable incompatibility between these two waters. The only concern we would have with the above is that if the brine represented herein were to be used for drilling purposes, it would be difficult to raise the pH above approximately 9.0 due to the relatively high magnesium. Though the case does not exist herein, we would be concerned about using this brine in a zone where the water had a high calcium, which would result in calcium sulfate precipitation. Contact us for any additional assistance in this matter.

Form No. 3

ANALYSIS OF PRODUCED FLUID FROM LOWER WOLFCAMP.

By Waylan C. Martin, M. A.

SAN ANDRES WATER ANALYSIS

From tabulation of samples taken from various wells in Lea County.

LEA COUNTY Con't.

SAN ANDRES FORMATION

FIELD NAME	WELL NAME	Rw@ 75°F	SG@ 60°F	PH	Ca	Mg	Na	Cl	SO_4	CO_3	HCO_3
Vacuum	St.of N.M. "AE" #2	0.044	1.143	7.0	4009	330	90459	144,881	3417	-	-
Hobbs East	D. F. Ferguson #1	-	1.010	6.5	1000	365	4100	6,600	1680	-	2257
Vacuum	St. "O" (NCT-2) #17	.050	1.140	6.0	8634	6816	46365	140,818	318	-	216
Vacuum	St. "O" (NCT-1) #2	0.049	1.146	6.0	7286	3586	62778	141,407	365	-	594
West Lovington	St. "AH" #2	0.050	1.139	6.0	13712	9937	22663	140,465	91	-	421
West Lovington	St. "AH" #7	0.049	1.132	6.0	16116	11833	3476	130,428	304	-	282
West Lovington	St. "AH" #12	0.048	1.141	6.0	21830	17055	22900	140,465	182	-	443
Moore	Moore #4	-	1.170	5.8	2203	1217	94758	151,940	3925	-	427
Maljamar	N.M. "O" (NCT-3)	0.071	1.074	7.65	3300	1470	38075	66,785	2590	-	302
STRAWN FORMATION											
Lusk	N.M. "CR" St. #1	0.069	1.092	6.3	10450	1860	-	78,500	200	-	122
Lusk	N.M. "CR" St. #3	-	1.099	6.8	8534	4715	-	90,880	-	-	-
TUBB FORMATION											
Tubb	Lockhart #9	-	1.127	6.4	7688	2006	54626	101,834	1967	-	129
WOLFCAMP FORMATION											
Vacuum	St. "R" (NCT-3) #15	-	1.044	7.5	2371	948	18012	31,980	2361	-	1868
Vacuum	St. "L" #6	-	1.099	5.8	13030	2080	30660	74,788	1478	-	488
Lazy J	State "AQ" (NCT-11) #1	0.085	1.072	5.6	6713	1251	30894	61,574	1507	-	705

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

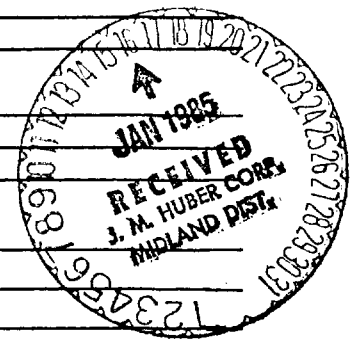
709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 185104

TO: Mr. Bill Horne
1900 Wilco Building, Midland, Texas

SAMPLE RECEIVED 1-9-85
RESULTS REPORTED 1-14-85



COMPANY J. M. Huber Corporation LEASE Morton

FIELD OR POOL

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Lea. STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Windmill water - taken from Cleveland West windmill. 1-7-85

NO. 2 Located approximately 7/8 of a mile to the east of

NO. 3 Cabot "Q" State No 4.

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0021			
pH When Sampled				
pH When Received	7.95			
Bicarbonate as HCO_3	185			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	224			
Calcium as Ca	56			
Magnesium as Mg	20			
Sodium and/or Potassium	59			
Sulfate as SO_4	109			
Chloride as Cl	61			
Iron as Fe	0.16			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	490			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	15.05			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

ANALYSIS OF WATER FROM FRESH WATER SUPPLY WELL

By

Waylan C. Martin, M. A.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

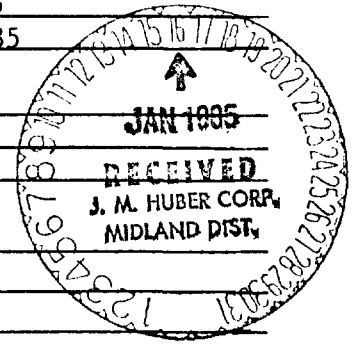
709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 185105

TO: Mr. Bill Horne
1900 Wilco Building, Midland, Texas

SAMPLE RECEIVED 1-9-85
RESULTS REPORTED 1-14-85



COMPANY J. M. Huber Corporation LEASE

FIELD OR POOL Morton

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Windmill water - taken from ~~Stahr~~ Stolts Ranch windmill. 1-7-85

NO. 2 Located approximately 3/4 of a mile to the west of

NO. 3 Cabot "Q" State No. 1.

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0023			
pH When Sampled				
pH When Received	7.68			
Bicarbonate as HCO_3	232			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	260			
Calcium as Ca	81			
Magnesium as Mg	14			
Sodium and/or Potassium	31			
Sulfate as SO_4	81			
Chloride as Cl	37			
Iron as Fe	0.16			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	475			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	18.00			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

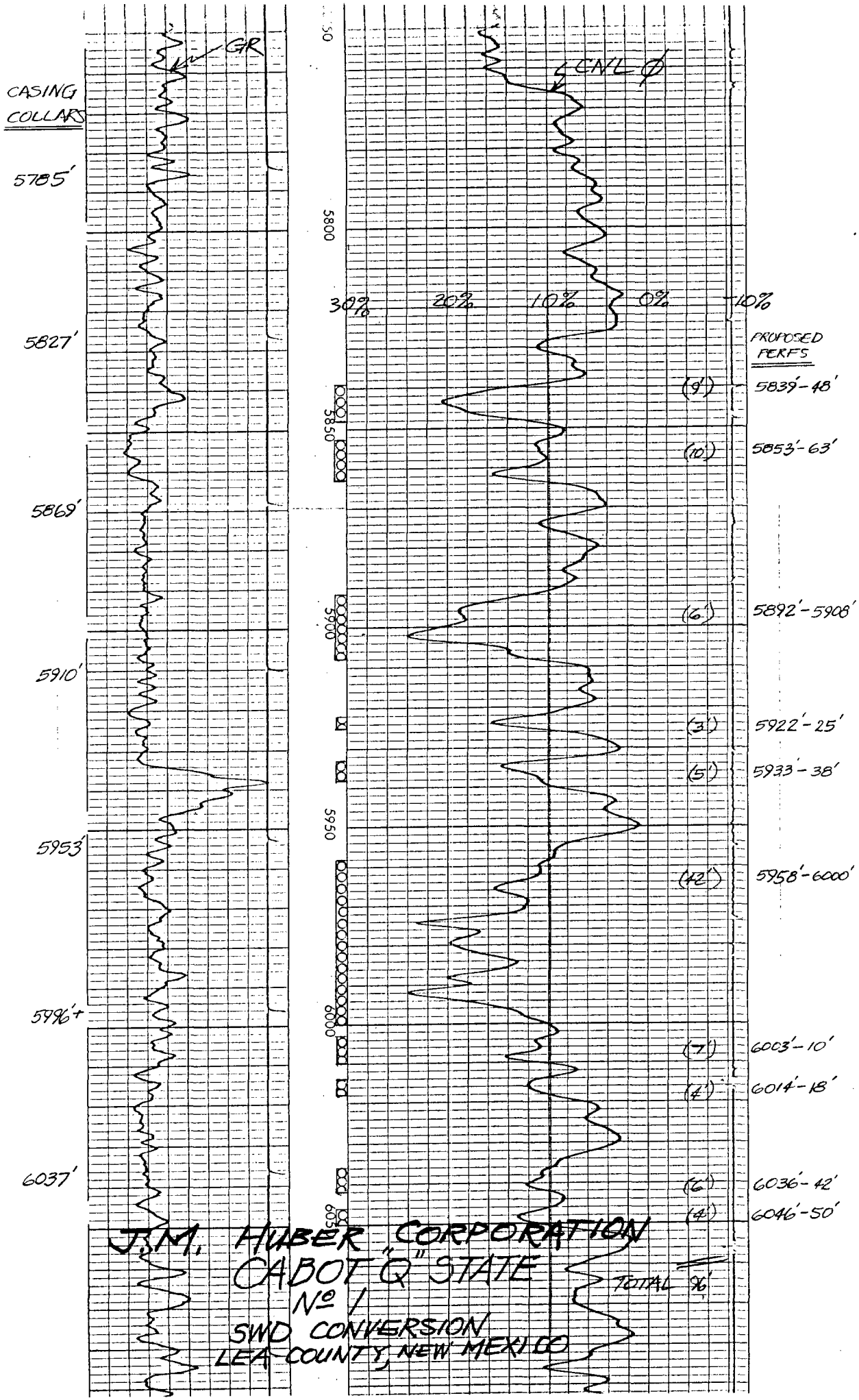
Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

ANALYSIS FROM FRESH WATER SUPPLY WELL

By _____

Waylan C. Martin, M. A.


GR
CAVL Ø
CASING COLLARS
5785'
5827'
5869'
5910'
5953'
5996'+
6037'
5750
5800
5850
5900
5950
6000
6050
30%
20%
10%
0%
10%
PROPOSED PERFS
(9') 5839'-48'
(10') 5853'-63'
(6') 5892'-5908'
(3') 5922'-25'
(5') 5933'-38'
(12') 5958'-6000'
(7') 6003'-10'
(4') 6014'-18'
(6') 6036'-42'
(4') 6046'-50'
TOTAL 96'
J.M. HUBER CORPORATION
CABOT "Q" STATE
Nº 1
SWD CONVERSION
LEA COUNTY, NEW MEXICO

J. M. HUBER CORPORATION

OIL AND GAS DIVISION
1900 WILCO BUILDING
MIDLAND, TEXAS 79701

MIDLAND DISTRICT OFFICE

TELEPHONE
915-682-3794

January 21, 1985

Union Oil Company of California
Box 671
Midland, Texas 79701

Re: Conversion of J.M. Huber Corp.'s
Cabot "Q" State No. 1 to a Salt
Water Disposal Well

Gentlemen:

This is notification to you, as a leasehold operator within one-half mile of the subject well's location that J.M. Huber Corporation proposes to convert the Cabot "Q" State No. 1, Section 7, T15S, R35E, Lea County, New Mexico, to a salt water disposal well. Attached are copies of the applications for authorization to inject. Any objections or requests for hearing of administrative applications must be filed with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days from the date this application was mailed to you.

Very truly yours,

Robert R. Glenn
District Production Manager

WGH/sgp

attachments

J. M. HUBER CORPORATION

OIL AND GAS DIVISION
1900 WILCO BUILDING
MIDLAND, TEXAS 79701

MIDLAND DISTRICT OFFICE

TELEPHONE
915-682-3794

January 21, 1985

Great Western Drilling Company
Box 1659
Midland, Texas 79702

Re: Conversion of J.M. Huber Corp.'s
Cabot "Q" State No. 1 to a Salt
Water Disposal Well

Gentlemen:

This is notification to you, as a leasehold operator within one-half mile of the subject well's location that J.M. Huber Corporation proposes to convert the Cabot "Q" State No. 1, Section 7, T15S, R35E, Lea County, New Mexico, to a salt water disposal well. Attached are copies of the applications for authorization to inject. Any objections or requests for hearing of administrative applications must be filed with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days from the date this application was mailed to you.

Very truly yours,

Robert R. Glenn
District Production Manager

WGH/sgp

attachments

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. Mgr. 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 time consecutive weeks, beginning with the issue of

January 11, 19 85

and ending with the issue of

....., 19.....

And that the cost of publishing said notice is the sum of $ 7.01 which sum has been (Paid) (~~Assessed~~) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 17th day of January, 19 85

Mrs. Jean Stevens

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 86

LEGAL NOTICE

To whom it may concern:

J.M. Huber Corporation proposes to convert the following well to a produced water disposal well:

Cabot "Q" State No. 1; Section 7, T15S, R35E, 1980' FSL & 560' FWL, Lea County, New Mexico

The intended purpose of the injection well is to accept lower Wolfcamp reduced water in the San Andres formation at a depth between 4630' and 6050'. The estimated maximum injection pressure and rate will be 900 psi and 1000 BPD, respectively. Interested parties must file objections or requests for hearing with the Oil Conservation Divison, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days from the date of this publication.

For further information, contact Bob Glenn at J.M. Huber Corporation, 1900 Wilco Building, Midland, Texas 79701, or telephone (915) 682-3794.

Published in the Lovington Daily Leader January 11, 1985.

ILLEGIBLE