CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: J. M. Huber Corp. Well: Superior 'A' State No. 1

Contact: Don Canman Title: P.E. Phone: 713-871-9474

DATE IN 8-22-96 RELEASE DATE 9-6-96 DATE OUT 9-19-96

Proposed Injection Application is for: ___ **WATERFLOOD** ___ Expansion ___ Initial

Original Order: R- _____ ___ Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS X **SALT WATER DISPOSAL** ___ Commercial Well

___ WIPP ___ Capitan Reef

Data is complete for proposed well(s)? Yes Additional Data Req'd _____

AREA of REVIEW WELLS

13 Total # of AOR 4 # of Plugged Wells

___ Tabulation Complete ___ Schematics of P & A's

___ Cement Tops Adequate ___ AOR Repair Required

INJECTION FORMATION

Perf: 5873-6086'

Injection Formation(s) San Andres 5500-6100' Compatible Analysis ____

Source of Water or Injectate Wolfcamp produced

PROOF of NOTICE

↘ Copy of Legal Notice ↘ Information Printed Correctly

↘ Correct Operators 0 Copies of Certified Mail Receipts

NO Objection Received ___ Set to Hearing _____ Date

NOTES: Couple of AOR wells have questionable cement but another SWD was permitted in the AOR in 1985.

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? Yes

COMMUNICATION WITH CONTACT PERSON:

1st Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

2nd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

3rd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion _____

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

RECEIVED
AUG 22 1996
OIL CONSERVATION DIVISION

Oil Conservation Div.
2040 Pacheco St.
Santa Fe, NM 87505

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ___ Secondary Recovery ___ Pressure Maintenance X Disposal ___ Storage
Application qualifies for administrative approval? ___ Yes ___ No

II. OPERATOR: J. M. Huber Corporation

ADDRESS: 1900 West Loop South, Suite 1600, Houston, Texas 77027

CONTACT PARTY: Donald E. Lanman PHONE: 713/871-4474

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

IV. Is this an expansion of an existing project: ___ Yes X 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. (See Attached)

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. (See Attached)

VII. Attach data on the proposed operation, including: (See Attached)

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 sources known to be immediately underlying the injection interval. (See Attached)

IX. Describe the proposed stimulation program, if any. (See Attached)

* 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. (See Attached)

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. (See Attached)

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 E. Lanman, P.E. TITLE: Sr. Staff Petroleum Engineer

SIGNATURE: Donald E. Lanman DATE: August 19, 1996

* 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 circumstance 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 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, PO Box 2088, Santa Fe, NM 87504-2088 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.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

8/23/96

GOVERNOR

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

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

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD X
WFX_____
PMX_____

Gentlemen:

I have examined the application for the:

JM Huber Corp Superior A State #1-N 7-15s-35e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

J. M. HUBER CORPORATION

OIL AND GAS DIVISION
1900 WEST LOOP SOUTH • SUITE 1600 HOUSTON, TEXAS 77027

(713) 871-4400

August 19, 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Kevin O. Butler & Associates, Inc.
Box 1171
Midland, Texas 79702

Re: Conversion of J. M. Huber Corp.'s
Superior State "A" #1
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 Superior State "A" #1, Section 7, T15S, R35E, Lea County, New Mexico, to a salt water disposal well. Attached are copies of the application 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,

J. M. HUBER CORPORATION

Donald E. Lanman

Donald E. Lanman, P.E.
Senior Staff Petroleum Engineer

DEL/ksj
Attachments

J. M. HUBER CORPORATION

OIL AND GAS DIVISION
1900 WEST LOOP SOUTH • SUITE 1600 HOUSTON, TEXAS 77027

(713) 871-4400

August 19, 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Great Western Drilling Company
Box 1659
Midland, Texas 79702

Re: Conversion of J. M. Huber Corp.'s
Superior State "A" #1
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 Superior State "A" #1, Section 7, T15S, R35E, Lea County, New Mexico, to a salt water disposal well. Attached are copies of the application 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,

J. M. HUBER CORPORATION

Donald E. Lanman

Donald E. Lanman, P.E.
Senior Staff Petroleum Engineer

DEL/ksj
Attachments

EXHIBIT VI

WELLS LOCATED WITHIN 1/2 MILE RADIUS OF REVIEW OF J. M. HUBER SUPERIOR STATE "A" #1

Operator	Lease & Well Name	Location	Total Depth	Current Status
Union Oil Co. of Calif.	State "7" #1	Unit D, Sec. 7, T15S, R35E	10,700'	P&A
J. M. Huber Corporation	James O'Neill St. #1	Unit E, Sec. 7, T15S, R35E	10,500'	Prod.
J. M. Huber Corporation	James O'Neill St. #3	Unit F, Sec. 7, T15S, R35E	10,500'	Prod.
J. M. Huber Corporation	Cabot "Q" State #1	Unit L, Sec. 7, T15S, R35E	14,254'	SWD
J. M. Huber Corporation	Superior State #2	Unit L, Sec. 7, T15S, R35E	10,500'	Prod.
J. M. Huber Corporation	Superior State #1	Unit K, Sec. 7, T15S, R35E	10,500'	Prod.
Great Western	Glen Cleveland #2	Unit J, Sec. 7, T15S, R35E	10,618'	Prod.
J. M. Huber Corporation	State "Q" #2	Unit M, Sec. 7, T15S, R35E	10,445'	P&A
Kevin O. Butler & Assoc. (formerly Union Oil Co. of Calif.)	Gulf Federal #1	Unit H, Sec. 12, T15S, R34E	10,703'	SWD
J. M. Huber Corporation	Stoltz Federal #1	Unit J, Sec. 12, T15S, R34E	10,400'	Prod.
Kevin O. Butler & Assoc. (formerly Union Oil Co. of Calif.)	Union "A" Federal #1	Unit P, Sec. 12, T15S, R34E	10,450'	Prod.
J. M. Huber Corporation	James O'Neill State #2	Unit C, Sec. 7, T15S, R35E	10,589'	P&A
J. M. Huber Corporation	Stoltz Federal #2	Unit J, Sec. 12, T15S, R35E	10,430'	P&A

EXHIBIT VII

DATA ON THE PROPOSED OPERATION:

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

   Average rate: 1800 BWPD
   Maximum rate: 2500 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: 500 psig
   Maximum pressure: 1000 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 No. 1 (M-Sec. 6, T15S, R35E) and in the Union Gulf Federal No. 1-12 (H-Sec. 12, T15S, R35E) and Cabot "Q" State (L-Sec. 7, 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.

EXHIBIT VIII

SUMMARY OF GEOLOGIC DATA:

The proposed injection zones in the J. M. Huber Superior State "A" #1, located 660' FSL and 1980' FWL, Section 7, T15S, R35E, are in the Permian San Andres Formation; the subject interval occurs from 5873' (-1819') to 6086' (-2032'). (See log for specific intervals.) The respective tops of the San Andres Formation and Glorieta Sand occur at 4550' (-496') and 6224' (-2170'). The overall interval is 213' thick and consists predominantly of brown-to-tan Dolomite with interbedded dense brown-to-tan limestones. The dolomites vary from fine-to-coarsely-crystaline 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 affect shallow fresh-water zones of the tertiary or triassic age units.

EXHIBIT IX

DESCRIPTION OF PROPOSED STIMULATION PROGRAM

Acidize perforations 5873' to 6086'.

EXHIBIT 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.

EXHIBIT XIV

1. Great Western Drilling Co.
   Box 1659
   Midland, Texas 79702
   (915) 682-5241

2. Kevin O. Butler & Associates, Inc.
   Box 1171
   Midland, Texas 79702
   (915) 682-1178

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

~~and numbered~~ ..... ~~in the~~

..... ~~Court of Lea~~

~~County, New Mexico~~, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, ~~once each week on the same day of the week~~, for one (1) day consecutive ~~weeks~~, beginning with the issue of

July 31, 19 96

and ending with the issue of

July 31, 19 96

And that the cost of publishing said notice is the sum of $ 14.86

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

Joyce Clemens

Subscribed and sworn to before me this 12th day of August, 19 96

Jean Clemens

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 98

LEGAL NOTICE

To whom it may concern: J.M. Huber Corporation proposes to convert the following well to a produced water disposal well: Superior State "A" #1, Section 7, T15S, R35E, 660' FSL & 1980' 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 5500-6100'. The estimated maximum injection pressure and rate will be 1000 psi and 2500 BPD, respectively. 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 from the date of this publication.

For further information, contact Donald E. Lanman at J.M. Huber Corporation, 1900 West Loop South, Suite 1600, Houston, Texas 77027, (713) 871-4474.
Published in the Lovington Daily Leader July 31, 1996.

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. 796181
SAMPLE RECEIVED 7-24-96
RESULTS REPORTED 7-25-96

TO: Mr. Joe Harrison
110 N. Marienfeld, Ste 380, Midland, TX 79701-4412

COMPANY J. M. Huber Corporation LEASE As listed
FIELD OR POOL Morton
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from tank @ windmill (0.8 mi. N. of Stoltz SWD).
NO. 2 Raw water - taken from tank @ windmill (0.6 mi. E. of O'Niel #2).
NO. 3 Raw water - taken from water well @ wellhead (0.3 mi. W. of Stoltz #1).
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

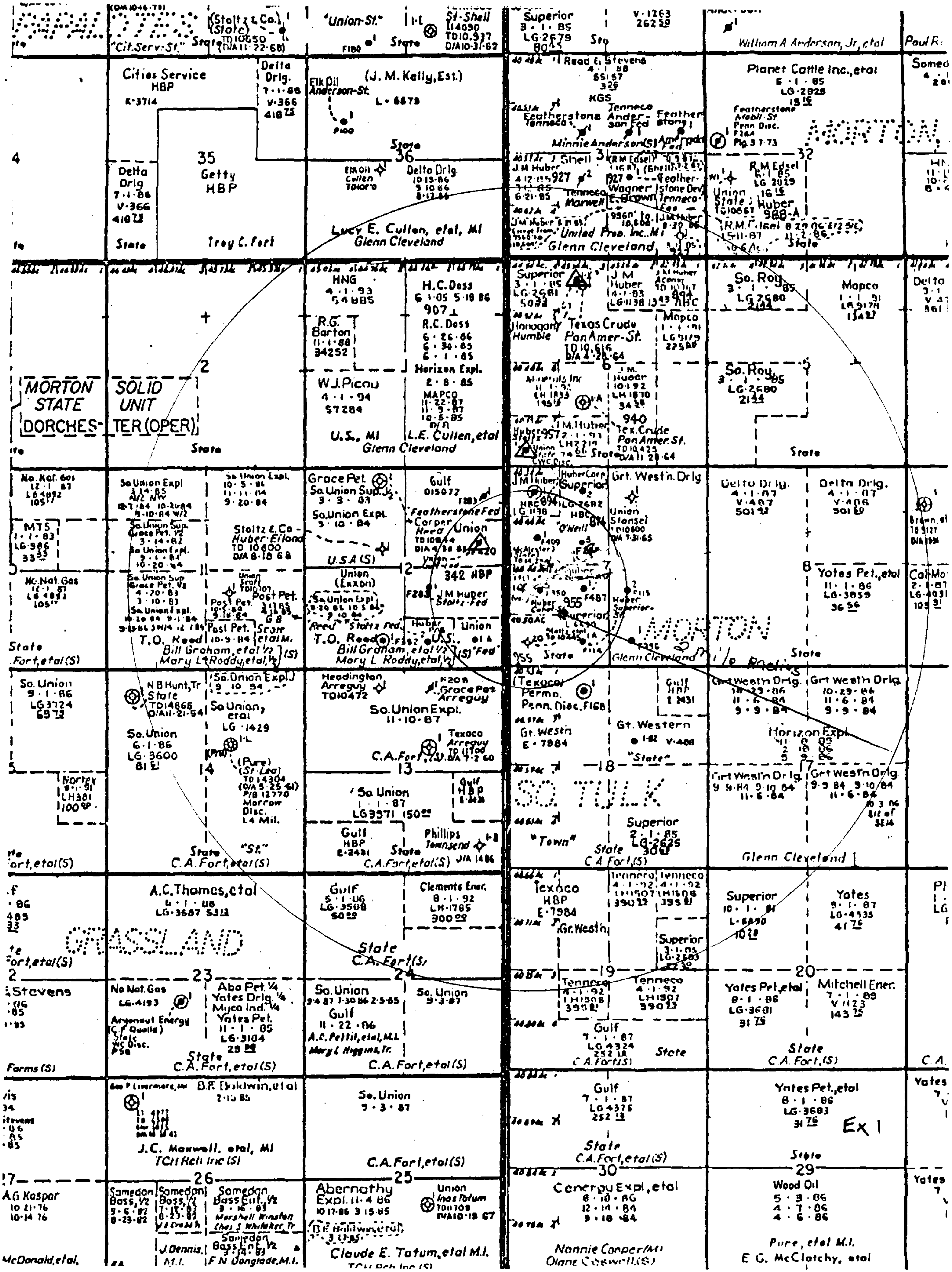
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0019	1.0017	1.0015	
pH When Sampled				
pH When Received	7.35	7.42	7.51	
Bicarbonate as HCO_3	244	312	210	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	288	350	244	
Calcium as Ca	108	118	84	
Magnesium as Mg	4	13	8	
Sodium and/or Potassium	91	38	28	
Sulfate as SO_4	128	103	86	
Chloride as Cl	108	48	31	
Iron as Fe	0.20	0.20	0.20	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	683	633	448	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	11.75	13.95	19.70	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	6.2	4.4	3.4	

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

By WC Martin
Waylan C. Martin, M.A.



Cities Service
HBP
Delta Drlg.
(J. M. Kelly, Est.)
Planet Cattle Inc., etal
35
Getty
HBP
36
32
Delta Drlg
Lucy E. Cullen, etal, MI
Glenn Cleveland
Troy C. Fort
State
HNG
H.C. Dess
R.G. Barton
R.C. Dess
Texas Crude
PanAmer-St.
So. Roy
Mapco
W.J. Picou
Horizon Expl.
MORTON STATE SOLID UNIT
DORCHESTER (OPER)
U.S., MI
L.E. Cullen, etal
Glenn Cleveland
Tex. Crude
PanAmer. St.
Grace Pet.
Gulf
Grt. West'n. Drlg
Delta Drlg.
So. Union Expl.
Stoltz & Co
Huber-Eiland
Union
U.S.A (S)
342 HBP
8
Yates Pet., etal
Post Pet.
T.O. Reed
Bill Graham, etal
Mary L. Roddy, etal
955
State
Glenn Cleveland
MORTON
So. Union
N B Hunt, Tr
State
Headington
Arreguy
So. Union Expl.
Texaco
Perm. Penn. Disc.
Gt. Westn
Gt. Western
Grt Westn Drlg
Horizon Expl.
C.A. Fort
13
18
SO. TULK
Superior
Phillips
Townsend
C.A. Fort, etal (S)
Glenn Cleveland
A.C. Thomas, etal
Gulf
Clements Ener.
Texaco
HBP
Tenneco
Superior
Yates
GRASSLAND
State
C.A. Fort (S)
23
24
19
20
Stevens
No. Nat. Gas
Abo Pet.
Yates Drlg.
Myco Ind.
Yates Pet.
So. Union
Gulf
Argonaut Energy
A.C. Pettit, etal, M.I.
Mary L. Higgins, Tr.
Tenneco
Yates Pet., etal
Mitchell Ener.
C.A. Fort, etal (S)
State
B.F. Baldwin, etal
So. Union
Gulf
Yates Pet., etal
Ex 1
J.C. Maxwell, etal, MI
TCH Rch Inc (S)
C.A. Fort, etal (S)
26
25
30
29
A.G. Kaspar
Samedan
Abernathy Expl.
Union
Cenergy Expl., etal
Wood Oil
Claude E. Tatum, etal M.I.
Nannie Cooper (M)
Pure, etal M.I.
E.G. McClatchy, etal
McDonald, etal.

PROPOSED

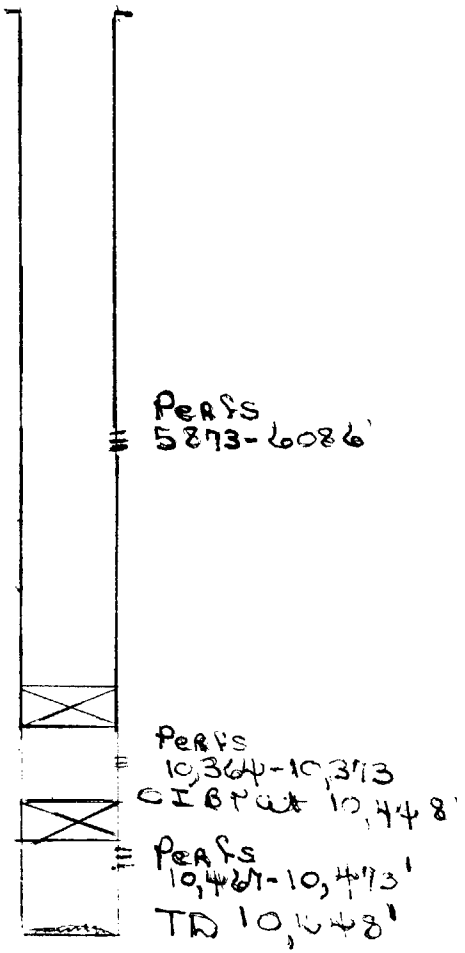
Side 1

INJECTION WELL DATA SHEET

OPERATOR J. M. Huber Corporation **LEASE** Superior State "A"

WELL NO. 1 | 660' FSL & 1980' FWL (FOOTAGE LOCATION) | 7 (SECTION) | 15S (TOWNSHIP) | 35E (RANGE)

Schematic



Well Construction Data

Surface Casing

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

TOC 4470' feet determined by Cement Bond Log

Hole Size 17-1/2"

Intermediate Casing

Size 8-5/8 " Cemented with 2040 sx.

TOC 600 feet determined by Temp. survey

Used 1" tbg to cement from 158' to surface with 140 sx.

Hole Size 11"

Long String

Size 5-1/2 " Cemented with 1320 sx.

TOC 4470' feet determined by Cement Bond Log

Hole Size 7-7/8"

Total Depth 10,500' PBTD 10,448'

Injection Interval

5873 feet to 6086 feet

(perforated or open-hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size Removed pump, rods and tubing from wellbore 2-2093 lined with _____ set in a
(type of internal coating)

None packer at None feet

Other type of tubing / casing seal if applicable N/A

Other Data

1. Is this a new well drilled for injection? ____ Yes X No

   If no, for what purpose was the well originally drilled? Oil well - Wolfcamp

2. Name of the injection formation San Andres

3. Name of Field or Pool (if applicable) N/A

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. 10,467-10,473' CIBP set at 10,448', 10,364-10,373' CIBP set at 10,300' with 35' cement.

5. Give the names and depths of any over or underlying oil of gas zones (pools) in this area.

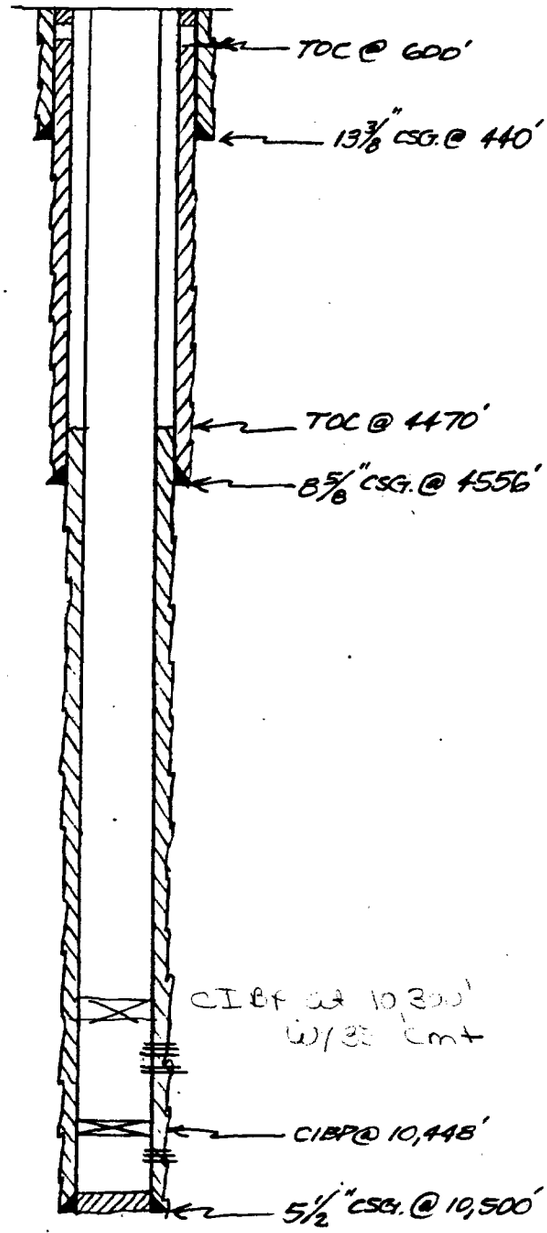
   Overlying - none identified

   Underlying - the Lower Wolfcamp at 10,338'

INJECTION WELL DATA SHEET

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

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

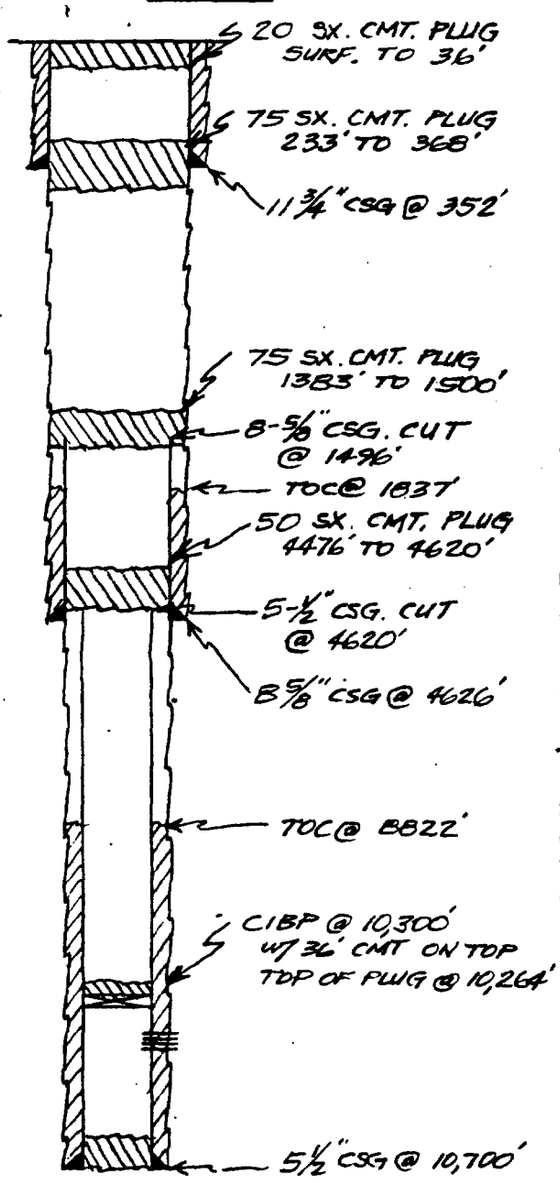
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

Kevin O. Butler Operator formerly

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'w 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' w 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) _____

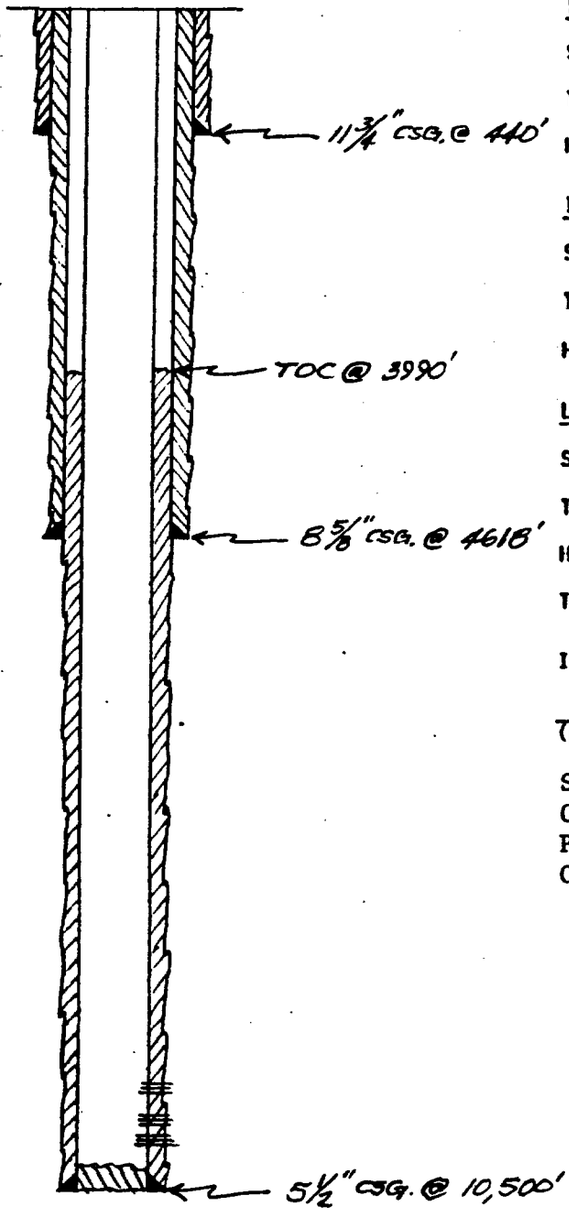
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

Ex 4

INJECTION WELL DATA SHEET

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

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 _____ 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? _____

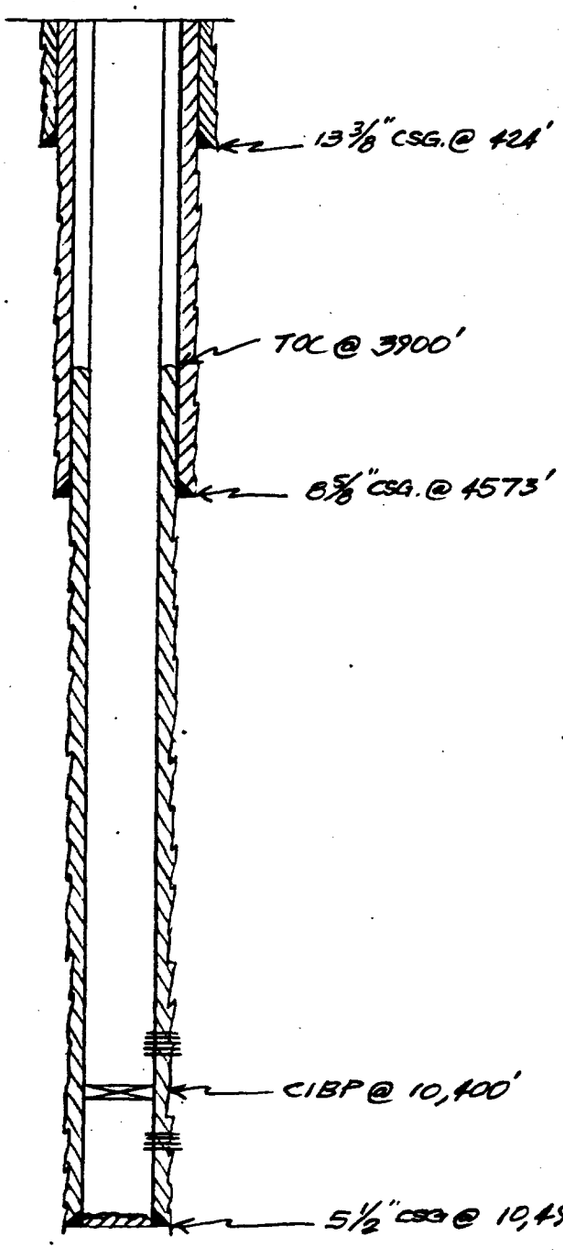
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

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

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. _____

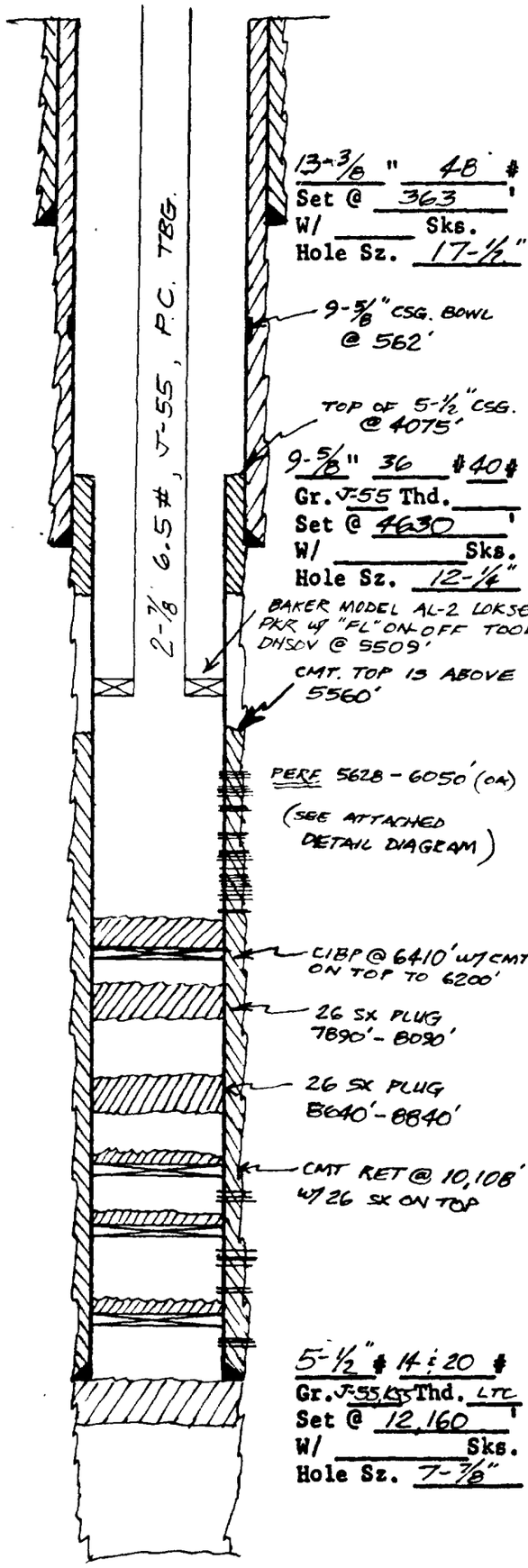
WELL DATA SHEET

Lease CABOT "Q" State SWD No 1 Well No. 1

Location NW¼ SW¼ Sec. 7 T-15-S R-35-E County LEA State NEW MEXICO

K. B. Elev. 4053'
G. L. Elev. 4041'
Distance "H" 12'

Date Completed BEGAN INJ: MAY 1985
Formation (s) SAN ANDRES



Initial Production Oil _____ B/D
Pump ( ) Flow ( ) Water _____ B/D
Other _____ Gas _____ MCF/D

Initial Treatments _____

Workovers _____

Present Production Oil _____ B/D
Pump ( ) Flow ( ) Water _____ B/D
Other _____ Gas _____ MCF/D

Present Producing Equipment _____

Proposed Work _____

Total Depth 14,254'

Prepared By WGH Date 10-13-9

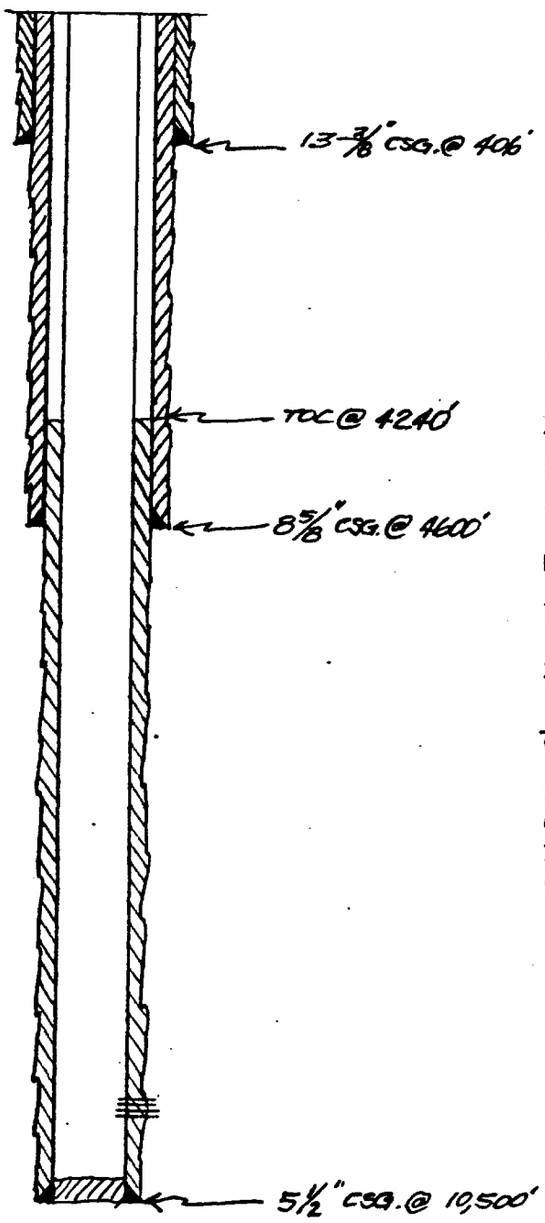
CABOT "Q" STATE - SWD # 1 HWI = 100%

INJECTION WELL DATA SHEET

J.M. Huber Corporation — OPERATOR
Superior State — LEASE

2	1980' FSL & 810' FWL	7	15S	35E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

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? _____

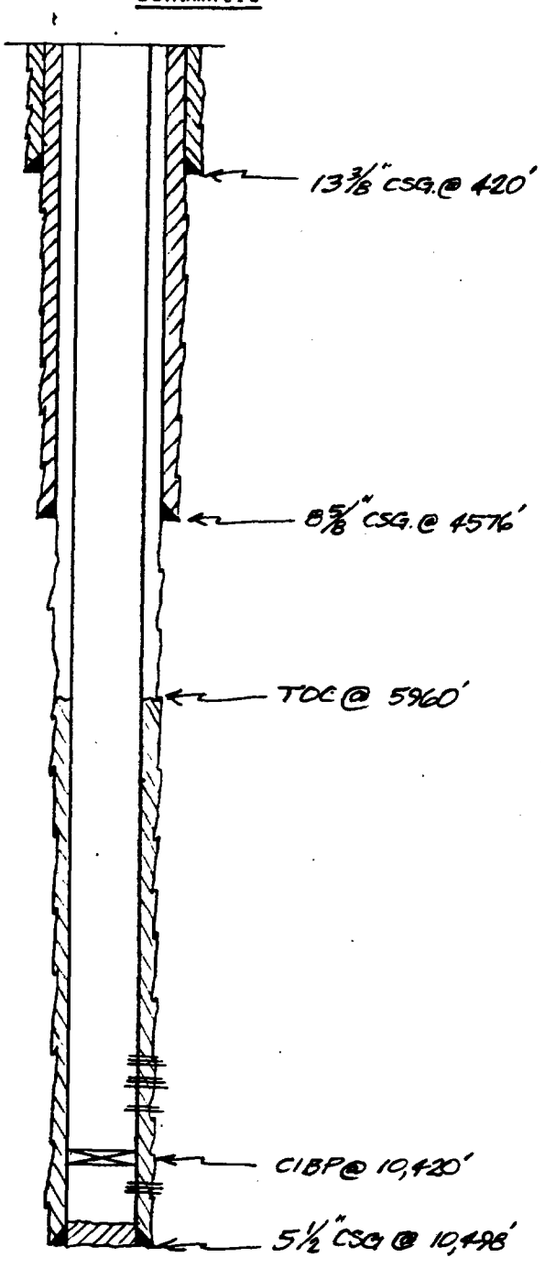
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

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

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"

Intermedinte 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? _____

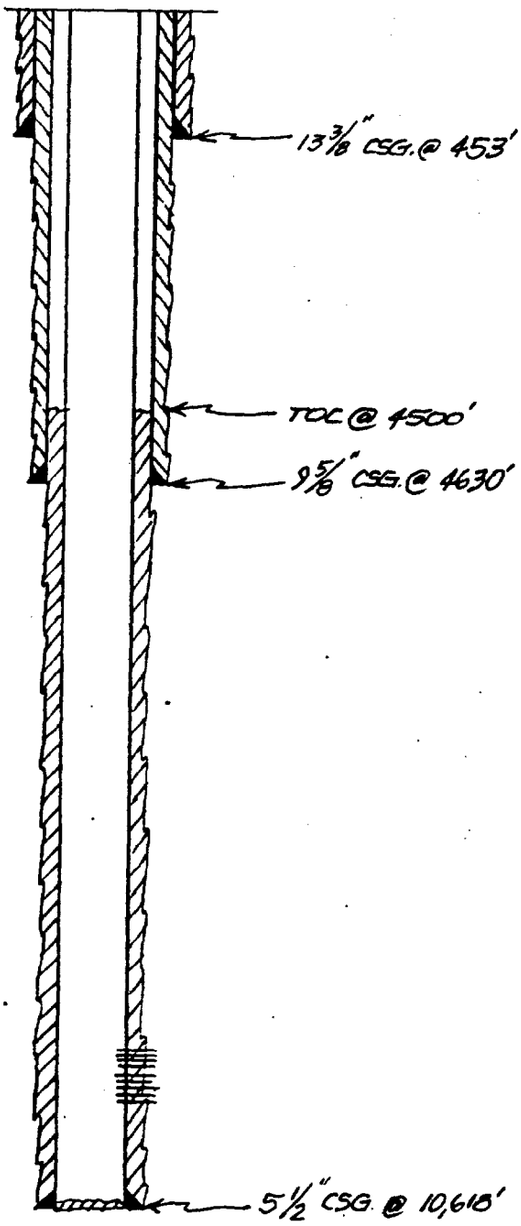
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

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

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 _____ 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) _____

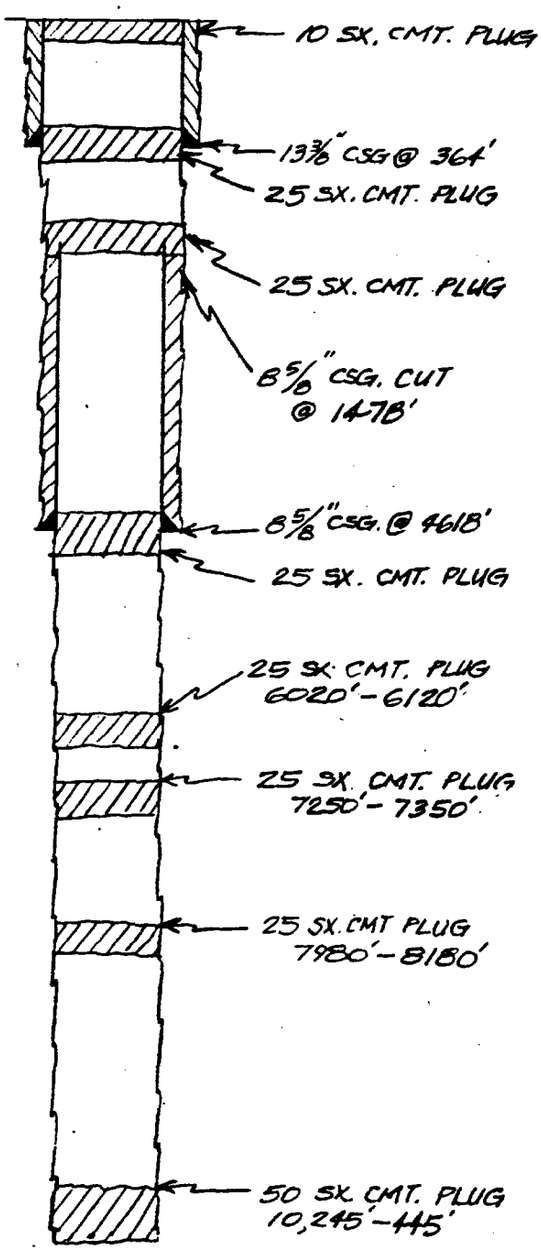
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

Cabot Corporation — OPERATOR
"Q" State — 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

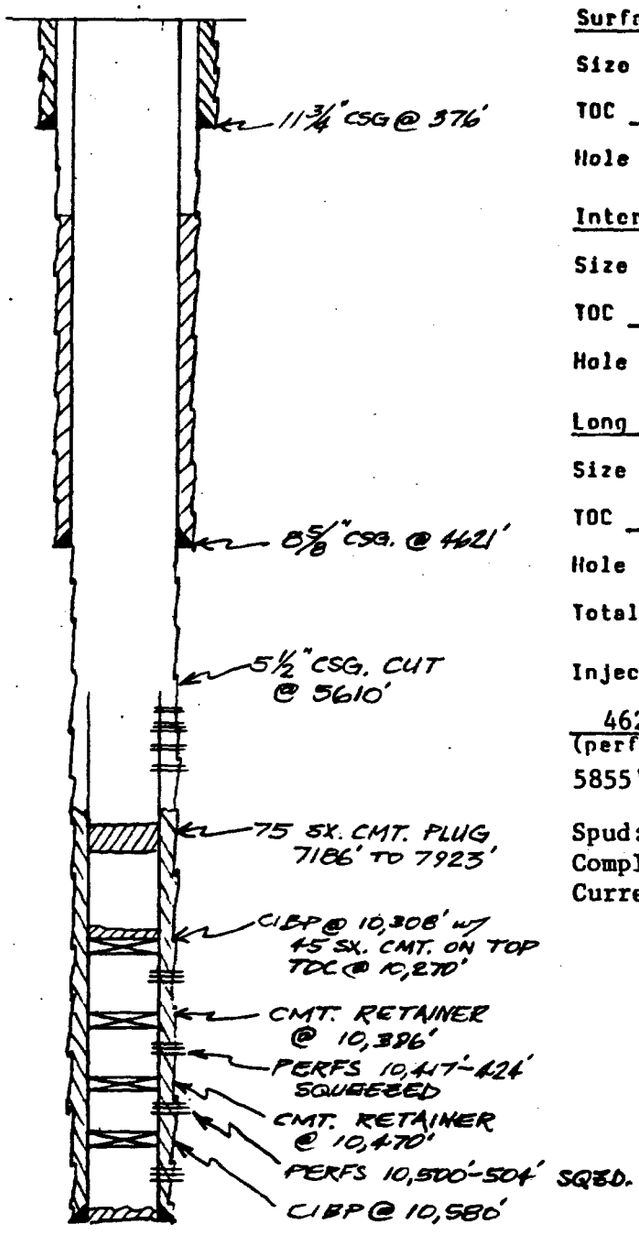
1. Name of the injection formation _____
2. Name of field or Pool (if applicable) _____
3. Is this a new well drilled for injection? ☐ Yes ☐ No

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

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 ☒ 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.

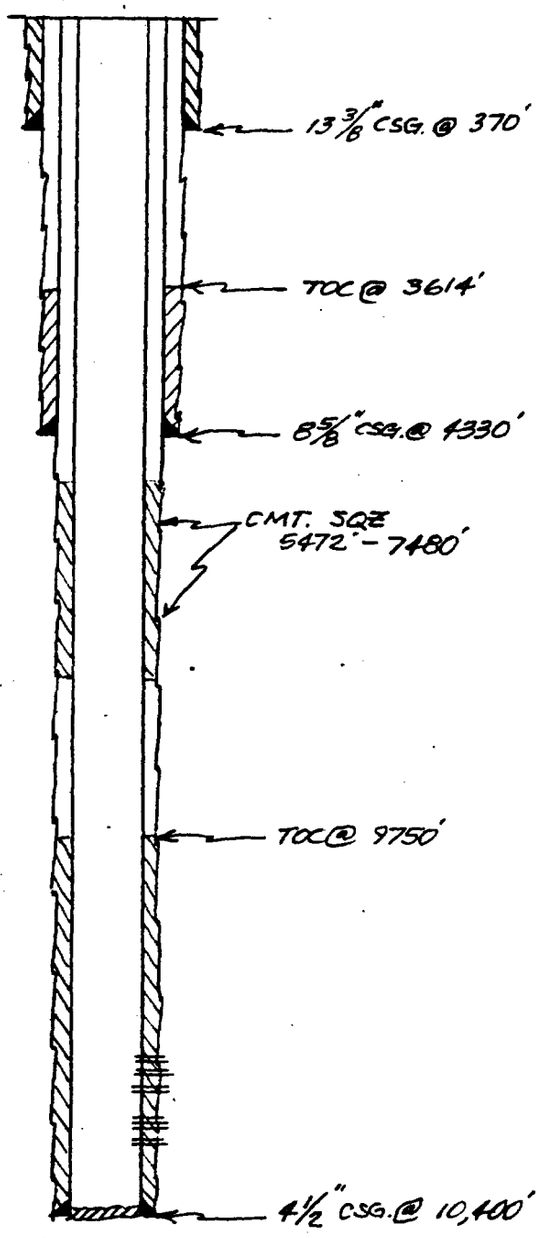
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. No overlying zones have been identified.
The Lower Wolfcamp @ 10,338' is underlying.

INJECTION WELL DATA SHEET

J.M. Huber Corporation — OPERATOR
Stoltz Federal — 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. _____

INJECTION WELL DATA SHEET

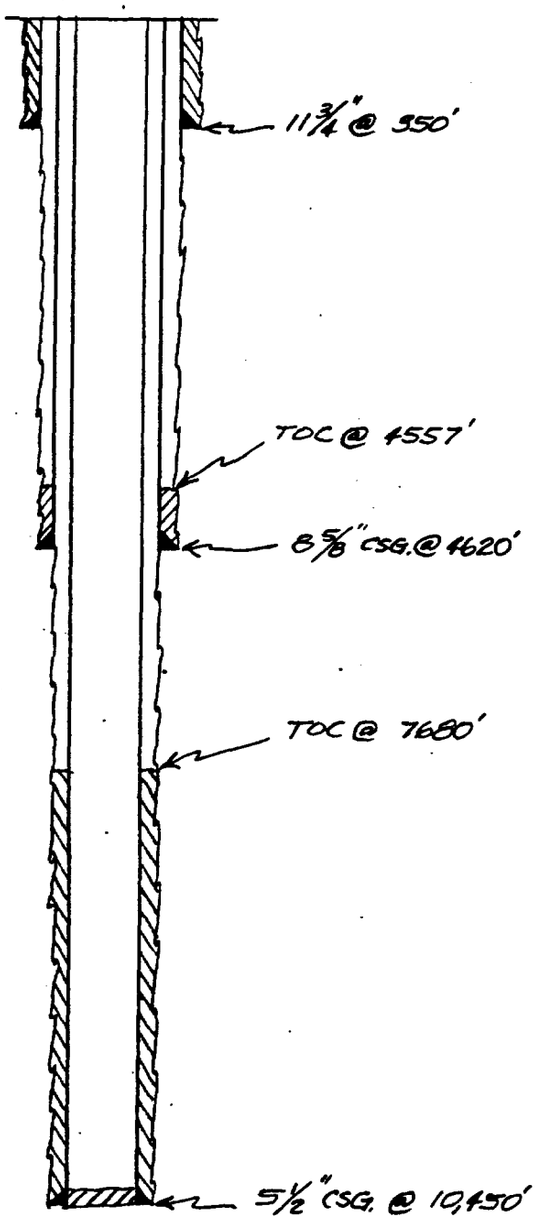
Kevin O. Butler & Assoc. Inc.

~~Union Oil Co. of California~~ "A" Federal

OPERATOR LEASE

1	766' FSL & FEL	12	15S	34E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

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. _____

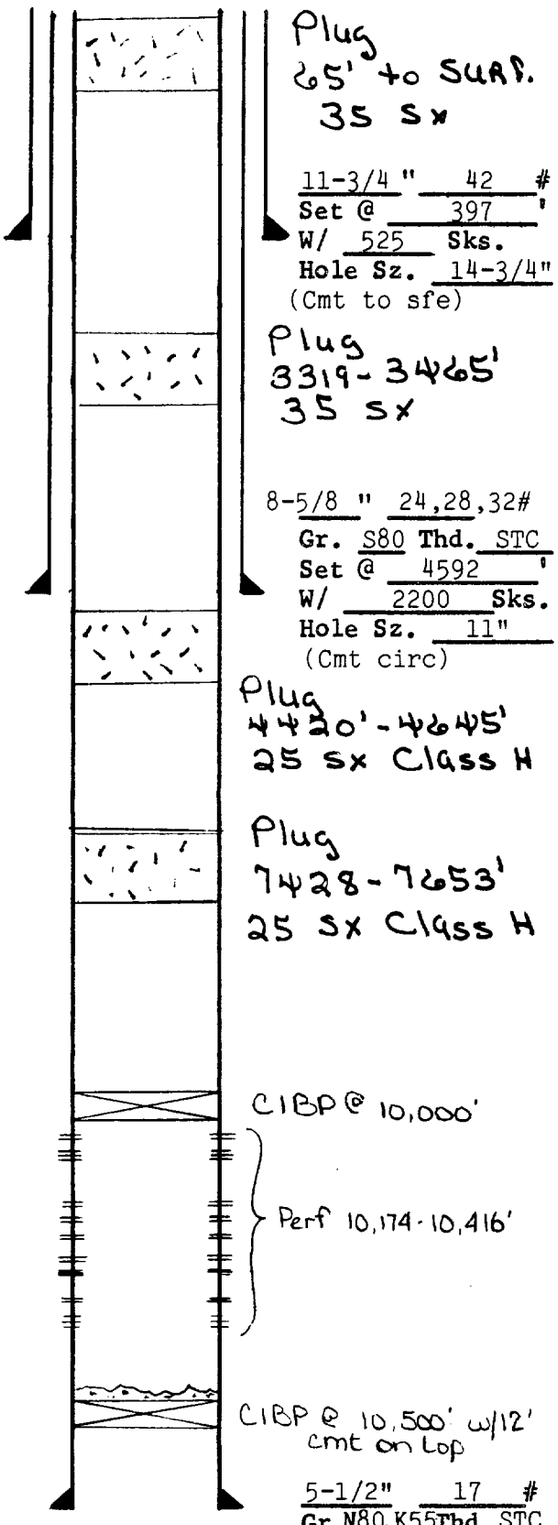
WELL DATA SHEET

Lease James O'Neill State Com **Well No.** 2

Location 660' FNL & 1980' FWL Section 7-T15S-R35E **County** Lea **State** New Mexico

K. B. Elev. 4062'
G. L. Elev. 4044'
Distance "H" 18'

Date Completed 2/3/83
Formation (s) Morton Wolfcamp



Initial Production Oil 15 B/D
Pump (X) Flow ( ) Water 25 B/D
Other ____ Gas 24 MCF/D

Initial Treatments Perf 2 HPF 10,174-176' & 10,179-184', acidize w/2000 gals 15% HCL. Perf 10,339-340', 10,343-346', 10,352-353', 10,376-379', 10,382-386', 10,402-406' and 10,410-416' w/2 HPF, acidize w/4500 gals 15% HCL.

Workovers
1/4/95 - Removed pump & rods
6/13/95 - POOH w/2-7/8" tubing
6/15/95 - Set 5-1/2" CIBP @ 10,000'

Present Production Oil ____ B/D
Pump ( ) Flow ( ) Water ____ B/D
Other ____ Gas ____ MCF/D

Present Producing Equipment

Proposed Work

Total Depth 10,589'
Plug Back Total Depth 10,000'

Prepared By D. Buchanan **Date** 3/22/91

updated by DLB 6/16/95
updated by DLB 4/1/96

DIVISION COPY

Schlumberger

SIMULTANEOUS

COMPENSATED NEUTRON-LITHO DENSITY

COMPANY J. M. HUBER CORPORATION

WELL SUPERIOR A STATE #1

FIELD MORTON - WOLFCAMP

COUNTY LEA STATE NEW MEXICO

LOCATION 1980' FWL, 660' FSL

API SERIAL NO.	SEC.	TWP.	RANGE
	7	15-S	35-E

Other Services:
BHC
DLL/MSFL

COUNTY LEA, N. M.
FIELD MORTON - WOLFCAMP
LOCATION
WELL SUPERIOR A STATE #1
COMPANY J.M. HUBER CORP.

Permanent Datum: G.L. ; Elev.: 4038
Log Measured From K.B. , 16 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 4054
D.F. 4053
G.L. 4038

Date	10-2-84			
Run No.	ONE			
Depth—Driller	10500			
Depth—Logger	10501			
Btm. Log Interval	10498			
Top Log Interval	4555			
Casing—Driller	8 5/8 @ 4556	@	@	@
Casing—Logger	4555			
Bit Size	7 7/8			
Type Fluid in Hole	SW GEL			
Dens. / Visc.	8.6 / 46			
pH / Fluid Loss	11 / 16 ml	ml	ml	
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.40 @ 65 °F	@ °F	@ °F	@
Rmf @ Meas. Temp.	@ °F	@ °F	@ °F	@
Rmc @ Meas. Temp.	@ °F	@ °F	@ °F	@
Source: Rmf / Rmc				
Rm @ BHT	.18 @ 148°F	@ °F	@ °F	@
TIME Circulation Stopped	0500			
TIME Logger on Bottom	1200			
Max. Rec. Temp.	148 °F	°F	°F	
Equip. / Location	8069 / HOBBS			
Recorded By	MCDONALD			
Witnessed By	HORNE			