



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A

July 30, 1990

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, NM 87501

ATTN: MR. DAVID CATANACH

RE: West Lovington Unit Area
Lea County, New Mexico

Sirs:

Enclosed please find the C-108 and attachments covering the conversion to injection wells in the West Lovington Area. We propose converting the following wells:

Well Numbers: 11, 12, 13, 19, 23, 25, 35, 36, 37, 40
42, 44, 46, 48, 50, 61

Please call me at 713/955-1146 in the event you have additional questions.

Very truly yours,

Michael J. Newport
Landman

MJN:ntd

Enclosures

cc: State of New Mexico - Oil Conservation District I
P. O. Box 1980
Hobbs, NM 88240

WLU032

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: Greenhill Petroleum Corporation
Address: 16010 Barker's Point Lane Houston, TX 77079
Contact party: Mike Newport Phone: (713)955-1146
- 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 R-2071.
- 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: Michael J. Newport Title Landman

Signature: Michael J. Newport Date: 7/27/90

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

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

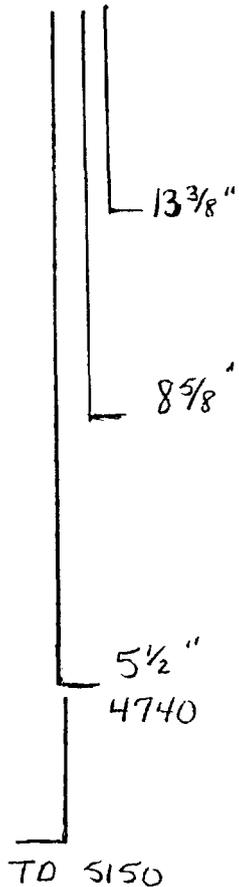
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

III. Tabulation and Prognosis for each well Greenhill proposes for injection.

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
11	660 FEL & 1980 FNL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 14 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1400 feet determined by CALC @ 50%

Hole Size: 10 3/4

Long String

Size: 5 1/2 " Cemented with 350 SX

TOC: 2643 feet determined by CALC @ 80%

Hole Size: 7 5/8

Total Depth: 5150

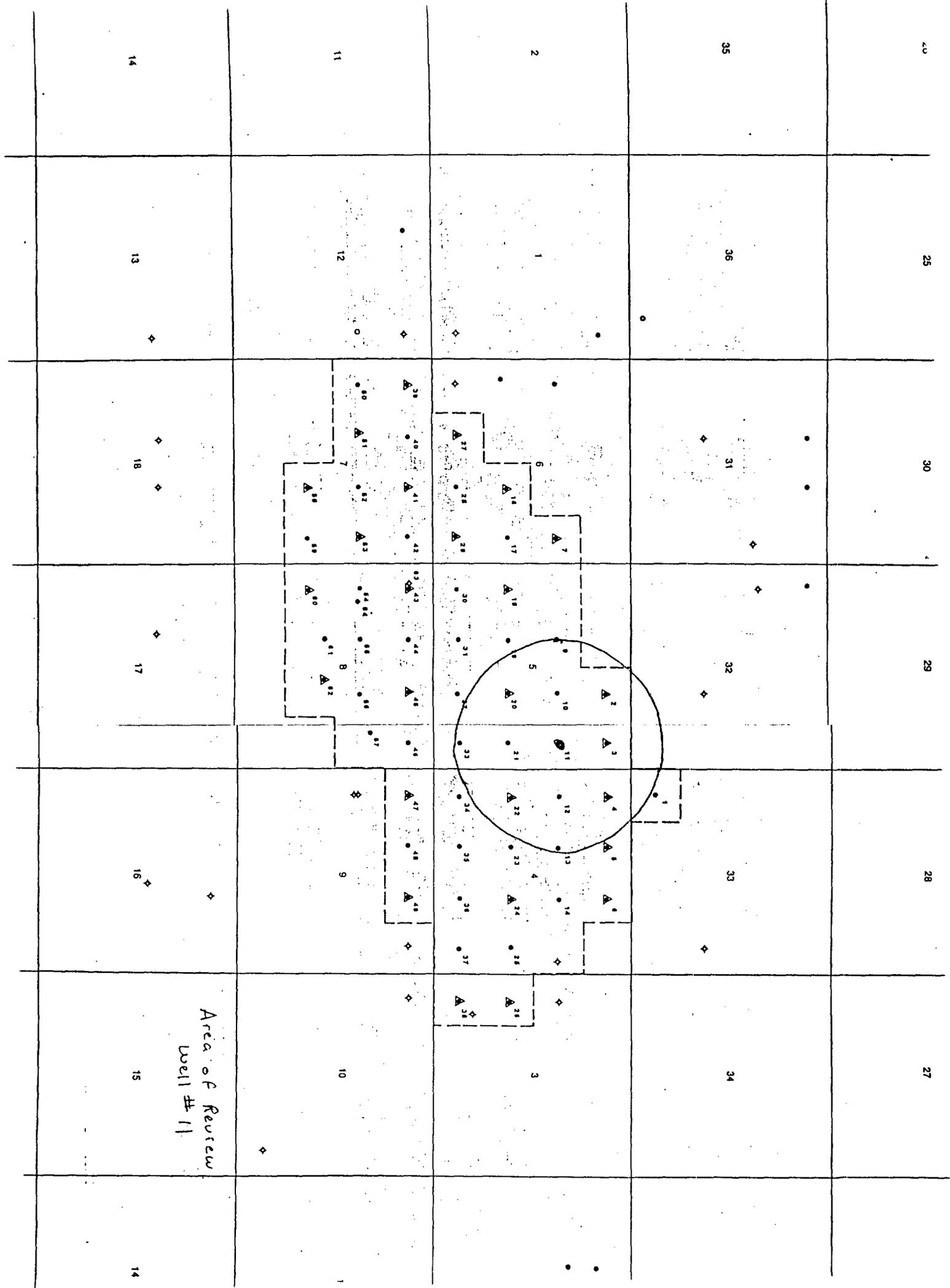
Injection Interval

4740 feet to 5105 (PBSD) feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

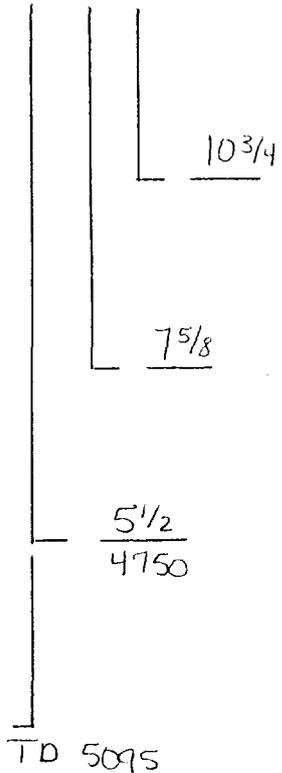
- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
12	660 FWL & 1980 FNL	4	17S	36F
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO		WEST LOVINGTON FIELD		

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 210 SX
 TOC: SFC @ 75%EFF feet determined by CALC

* Hole size: 12 1/4

Intermediate Casing

Size: 7 5/8 " Cemented with 600 SX
 TOC: 350' @ 50%EFF feet determined by CALC

* Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 2300' @ 50% feet determined by CALC

* Hole Size: 6 3/4

Total Depth: 5100 FT

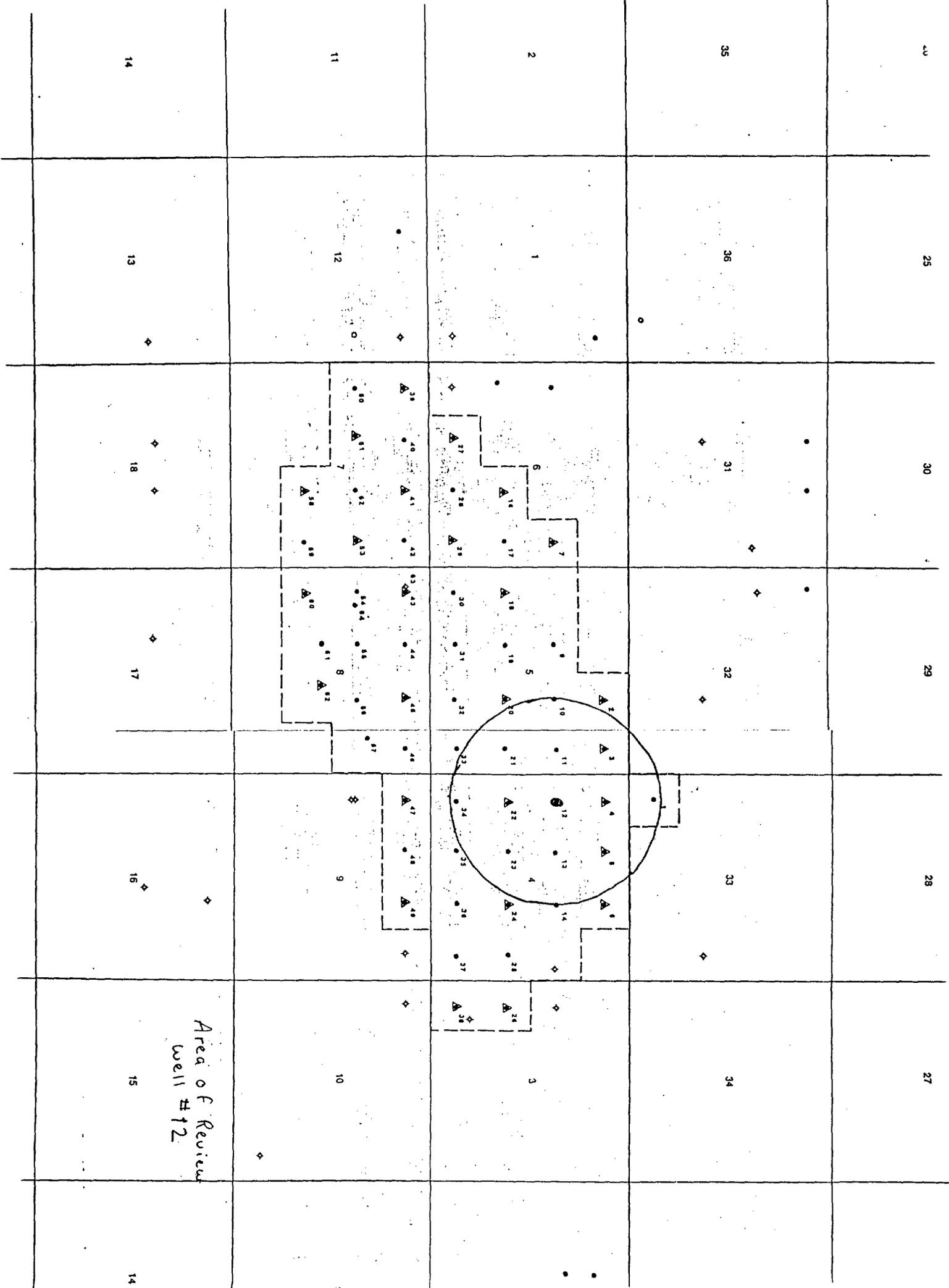
Injection Interval

4750 feet to 5095 feet
 (perforated or open-hole, indicate which)

Tubing size None lined with -- set in a
None packer at -- feet.
 (brand & model)
 (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) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

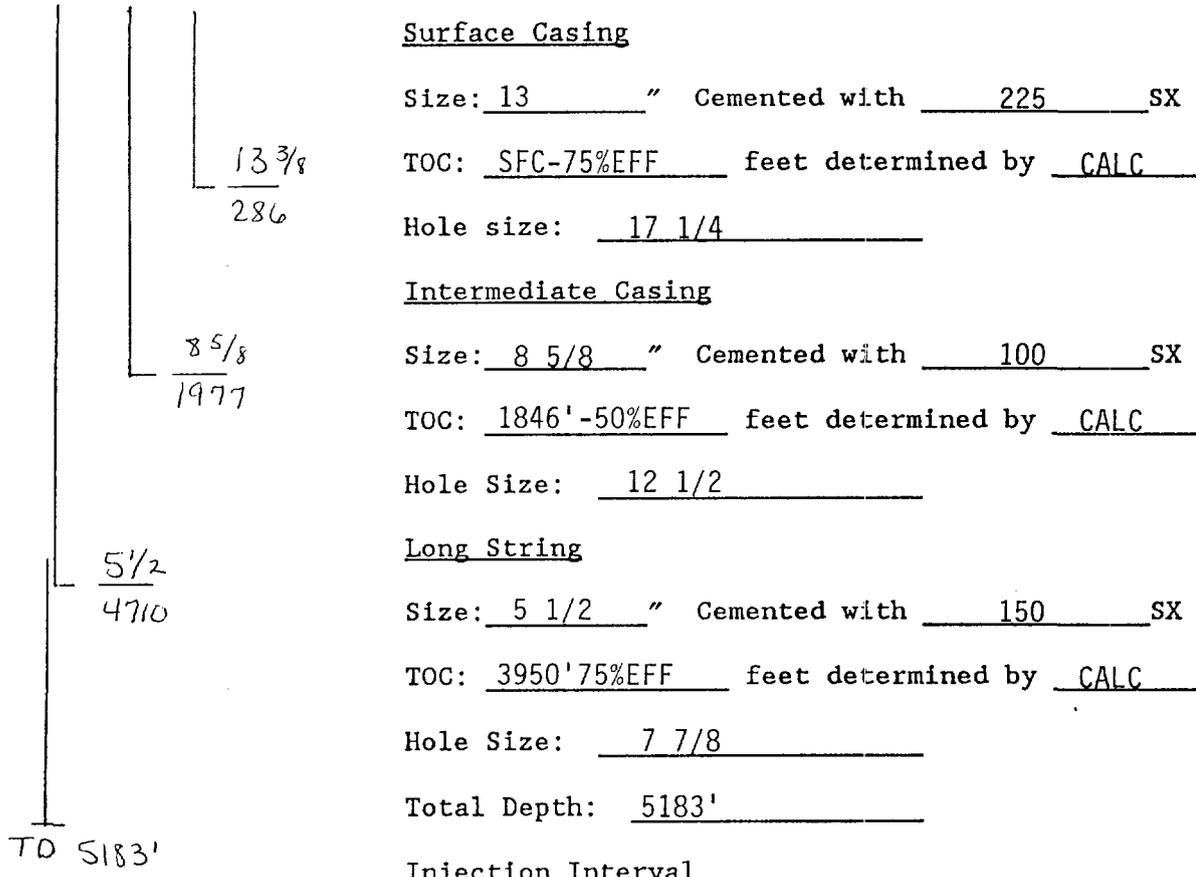


Area of Review
Well #12

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
13	660 FNL & 660 FEL	4	17S	36E NPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 " Cemented with 225 SX
 TOC: SFC-75%EFF feet determined by CALC
 Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 100 SX
 TOC: 1846'-50%EFF feet determined by CALC
 Hole Size: 12 1/2

Long String

Size: 5 1/2 " Cemented with 150 SX
 TOC: 3950'75%EFF feet determined by CALC
 Hole Size: 7 7/8
 Total Depth: 5183'

Injection Interval

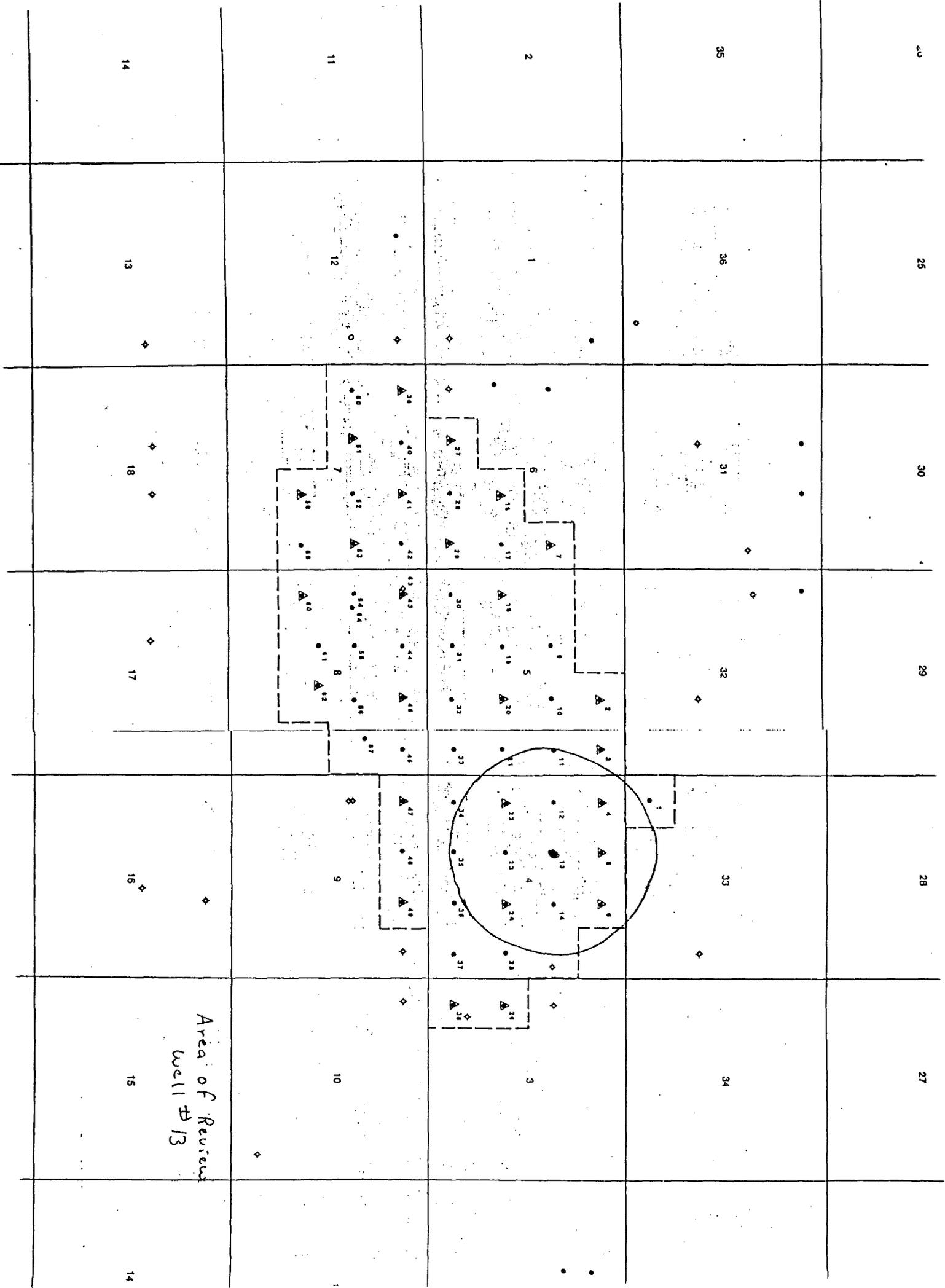
4710 feet to 5183 feet
 (perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING



Area of Review
Well #13

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
19	1980 FSL & 1980 FWL	5	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

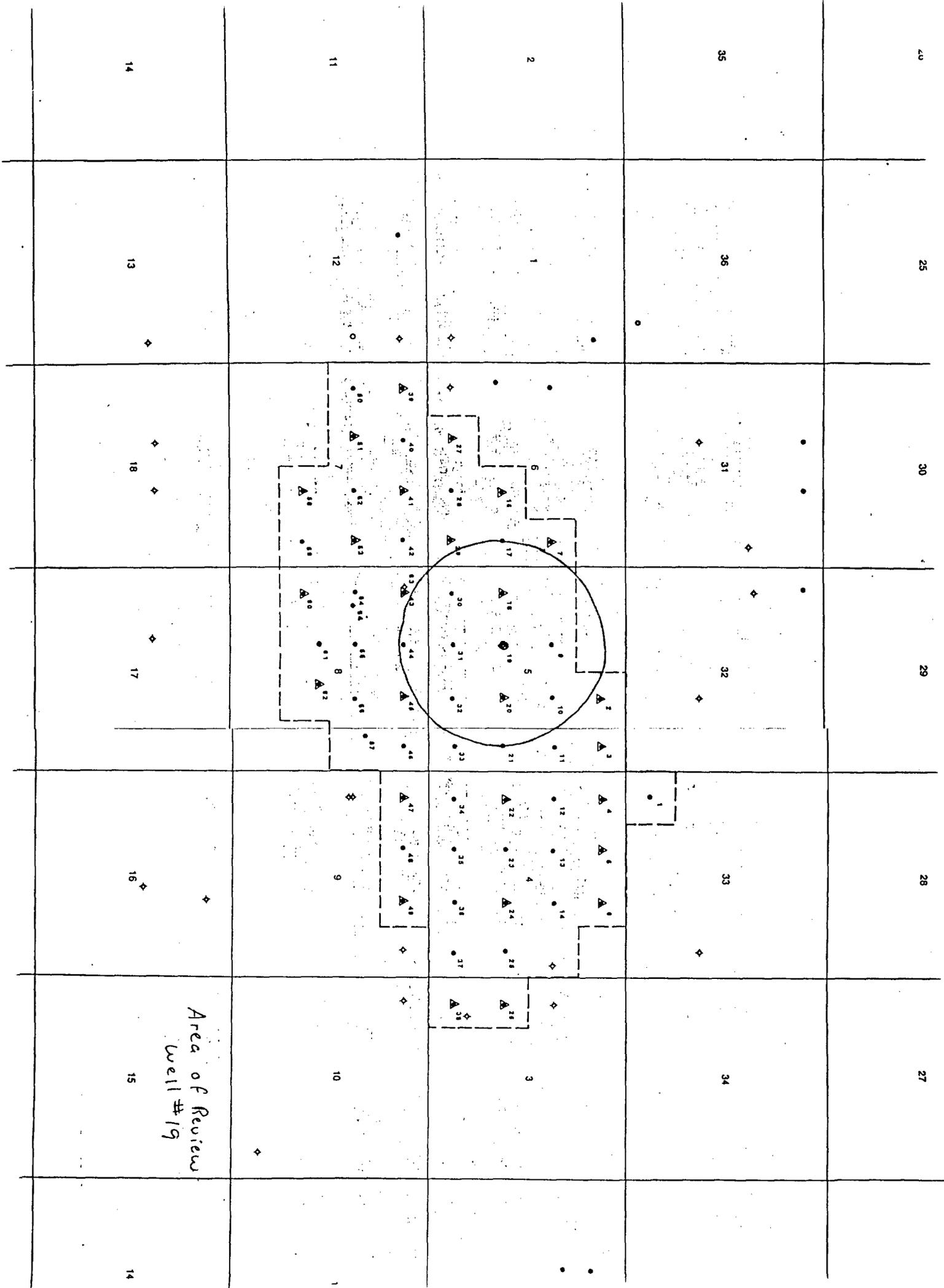
Tubular Data

<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p align="center"><u>13 3/8</u> 299</p> </div> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p align="center"><u>8 5/8</u> 1489'</p> </div> <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> <p align="center"><u>5 1/2</u> 4740'</p> </div> <p>TO 5080</p>	<p><u>Surface Casing</u></p> <p>Size: <u>13 3/8</u> " Cemented with <u>190</u> SX</p> <p>TOC: <u>CIRC</u> feet determined by <u>CALC</u></p> <p>Hole size: <u>17"</u></p> <p><u>Intermediate Casing</u></p> <p>Size: _____ " Cemented with <u>150</u> SX</p> <p>TOC: <u>1494' @ 80%</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>11 1/2"</u></p> <p><u>Long String</u></p> <p>Size: <u>5 1/2</u> " Cemented with <u>150</u> SX</p> <p>TOC: <u>3839' @ 80% FILL</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>7 7/8</u></p> <p>Total Depth: <u>5085</u></p> <p><u>Injection Interval</u></p> <p><u>4740</u> feet to <u>5085</u> feet (perforated or <u>open-hole</u>, indicate which)</p>
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Tubing size NONE lined with -- set in a
 _____ (material)
NONE packer at _____ feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING - PRODUCTIVITY NEVER DETERMINED



Area of Review
Well #19

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
23	1980 FSL & 1980 FWL	4	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data

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13 3/8
290

8 5/8
1953

5 1/2
4695'

OH

TD 5150

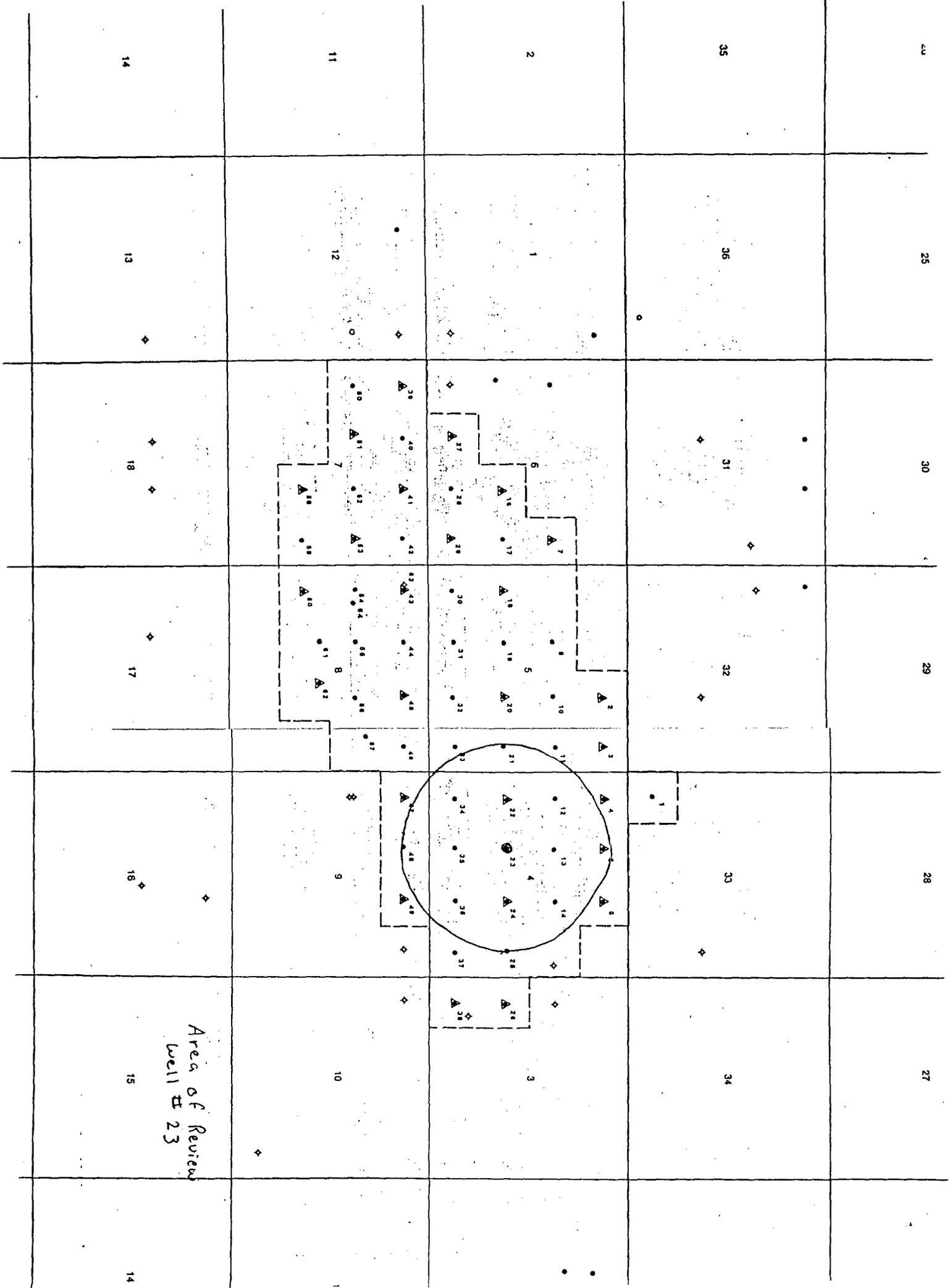
Injection Interval

4695 feet to 5150 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
BAKER packer at 4625' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG (UNEVALUATED)



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

OPERATOR	LEASE			
25	1980 FSL & 660 FEL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO				

Tubular Data

7 5/8
327'

4 1/2
5120'

Surface Casing

Size: 7 5/8 " Cemented with 250 SX

TOC: CIRC @ 50%EFF feet determined by CALC

Hole size: 11

Intermediate Casing

Size: _____ " Cemented with _____ SX

TOC: _____ feet determined by _____

Hole Size: _____

Long String

Size: 4 1/2 " Cemented with 650 SX

TOC: 2370 @ 50%EFF feet determined by CALC

Hole Size: 6 3/4 Perfs w/2 SSPF:

4730	4886	5030
4734	4970	5031
4785	4972	5038
4787	5010	5039
4884	5011	5093

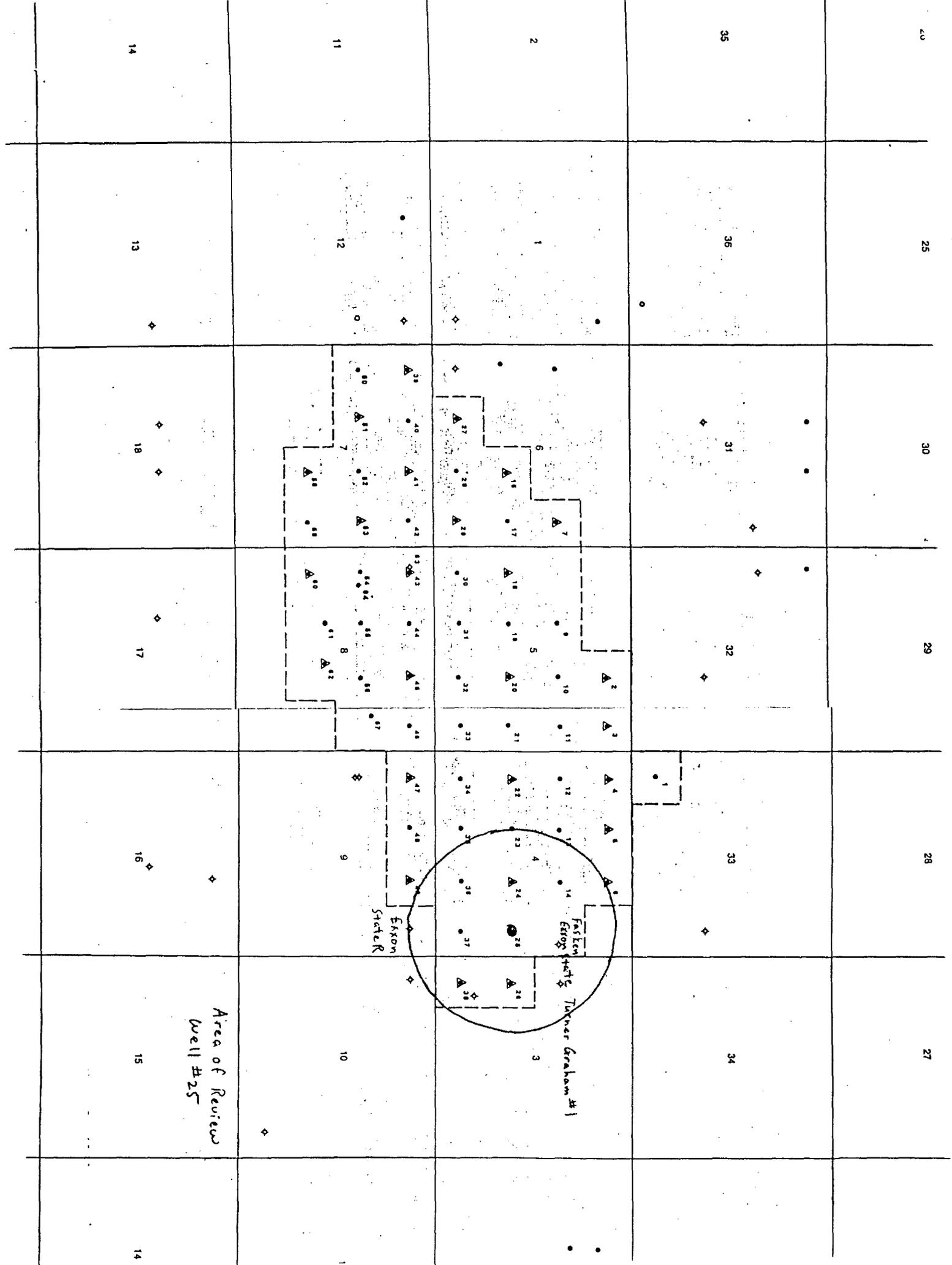
Injection Interval

4730 feet to 5093 feet
(perforated) or open-hole, indicate which)

Tubing size 2 3/8" 4.7# lined with _____ IPC _____ set in a _____ (material) _____ packer at 5050' feet.
 (brand & model) BAKER
 (or describe any other casing-tubing seal):

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING - UNEVALUATED



Area of Review
Well #25

Fastem
Estrog State
Turner Graham #1

Eakon
State R

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
35	660 FSL & 1980 FWL	4	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

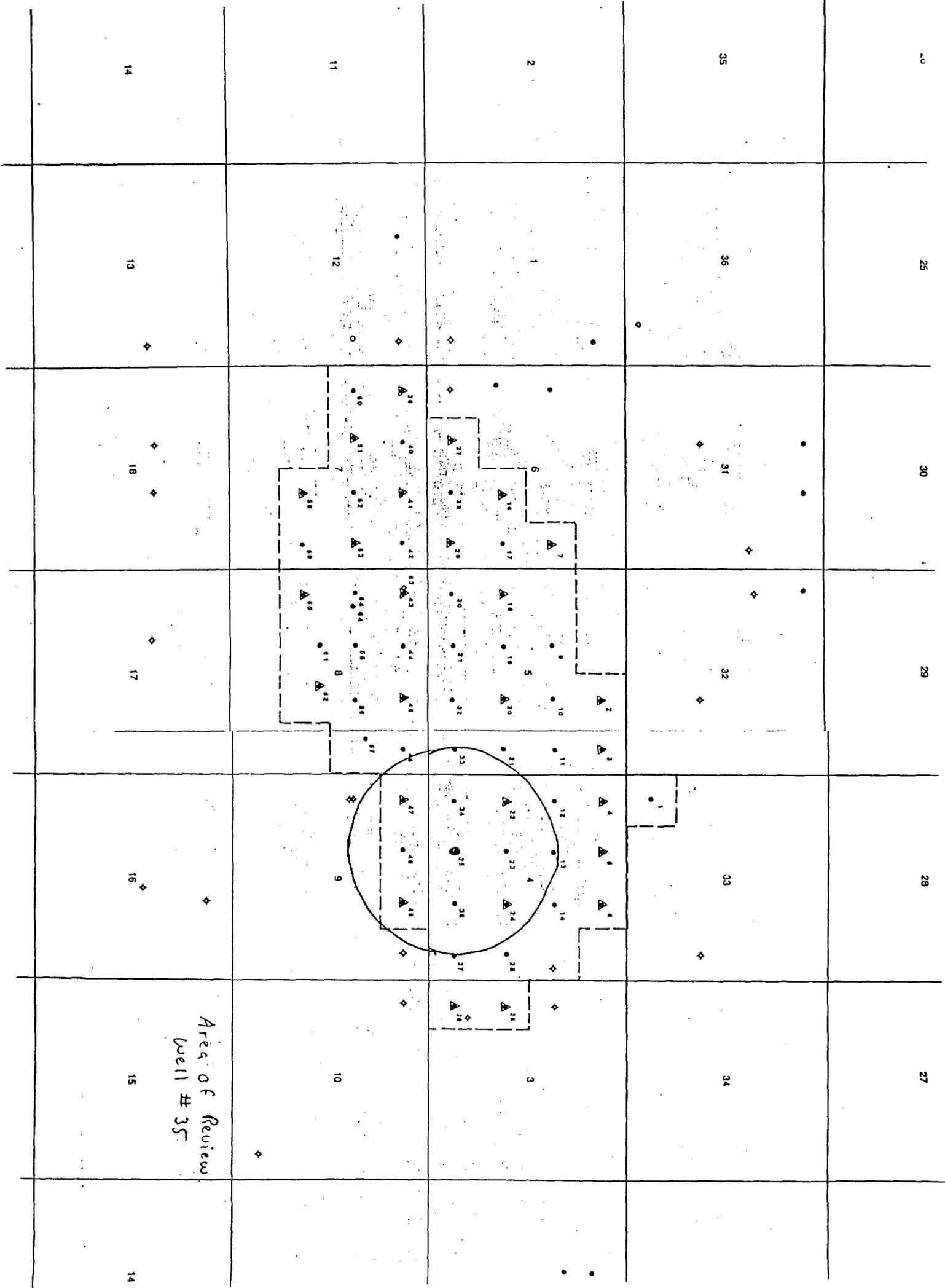
Tubular Data

<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	<p><u>Surface Casing</u></p> <p>Size: <u>13 3/8</u> " Cemented with <u>225</u> SX</p> <p>TOC: <u>CIRC @ 80%EFF</u> feet determined by <u>CALC</u></p> <p>Hole size: <u>17 1/4</u></p> <p><u>Intermediate Casing</u></p> <p>Size: <u>8 5/8</u> " Cemented with <u>100</u> SX</p> <p>TOC: <u>1766 @ 75%EFF</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>12 1/2</u></p> <p><u>Long String</u></p> <p>Size: <u>5 1/2</u> " Cemented with <u>100</u> SX</p> <p>TOC: <u>4176' @ 75%EFF</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>7 7/8</u></p> <p>Total Depth: <u>5175</u></p> <p><u>Injection Interval</u></p> <p><u>4682</u> feet to <u>5150</u> feet (perforated or <u>open-hole</u> indicate which)</p>
<p><u>13 3/8</u> <u>326</u></p> <p><u>8 5/8</u> <u>1963</u></p> <p><u>5 1/2</u> <u>4682</u></p> <p><u>TTT 5150 PB</u> <u>TO 5175</u></p>	

Tubing size 2 7/8 " lined with IPC set in a
 (material)
BAKER packer at 4612' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

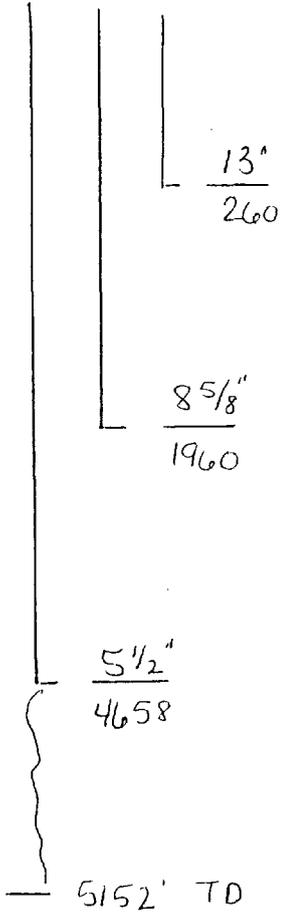


Area of Review
Well # 35

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
36	660 FSL & 1980 FEL	4	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data



Surface Casing

Size: 13 " Cemented with 200 SX
 TOC: CIRC feet determined by CALC
 Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX
 TOC: CIRC @ 15%FILL feet determined by CALC
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 375 SX
 TOC: 2758 @ 75%FILL feet determined by CALC
 Hole Size: 7 7/8
 Total Depth: 5152

Injection Interval

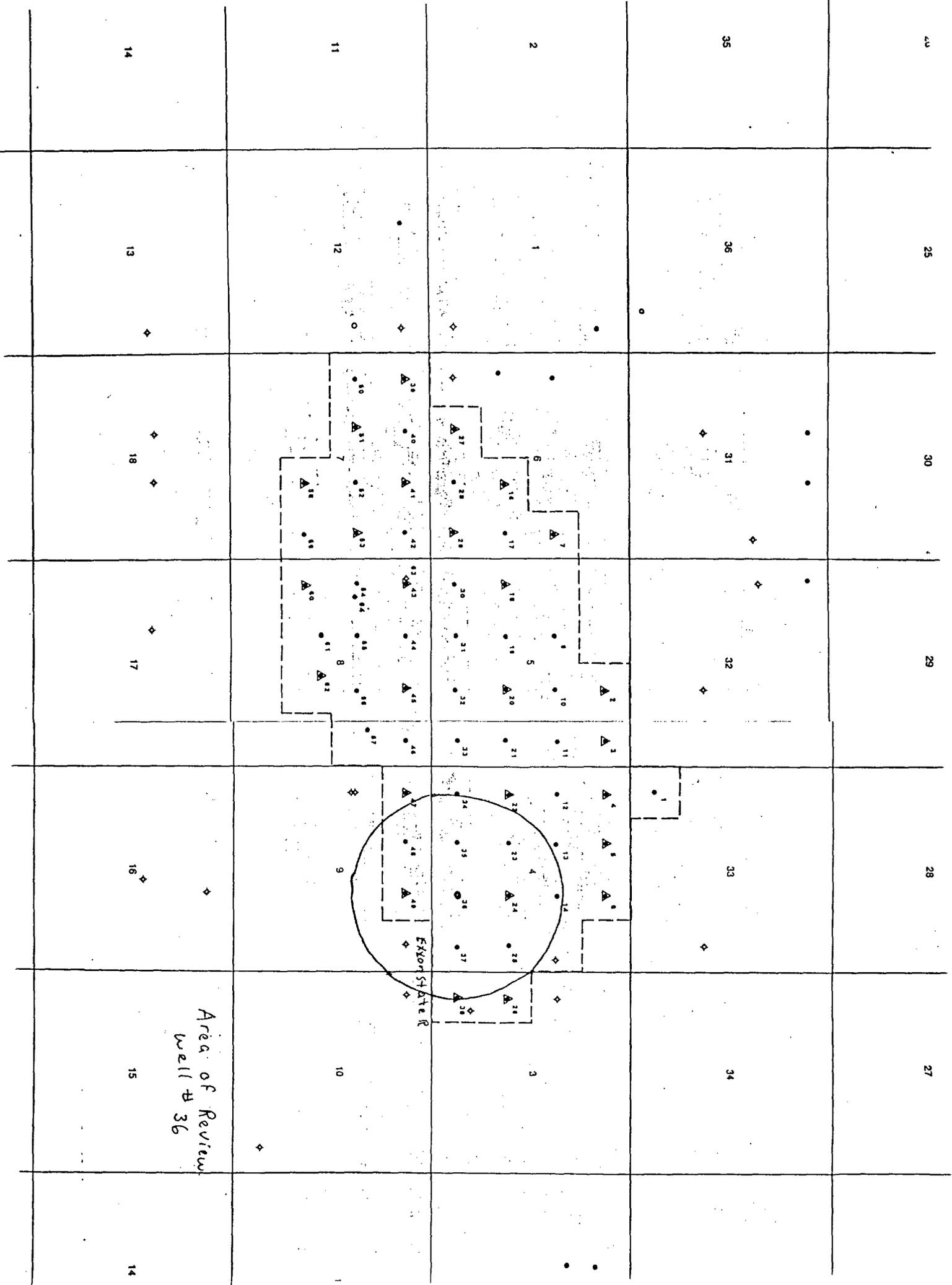
4658 feet to 5152 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
BAKER packer at 4588' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING - UNEVALUATED



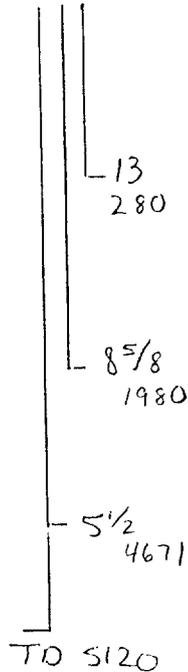
Area of Review
Well # 36

EXXON STATION

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
37	660 FSL & 660 FEL	4	17S	36F
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX

TOC: 72 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 2348 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5120

Injection Interval

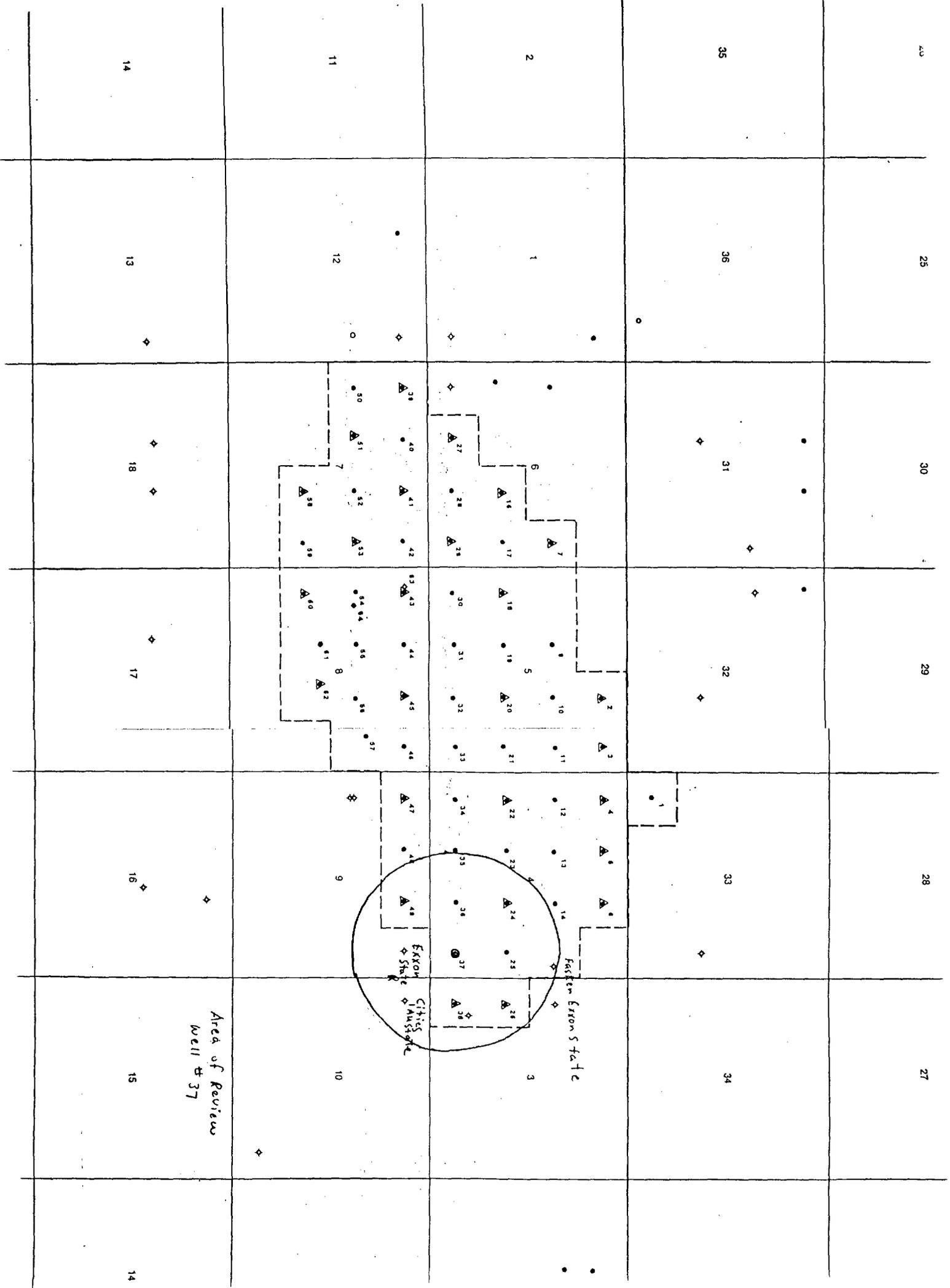
4705 feet to 5120 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
Baker packer at 4601' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING



Area of Review
Well # 37

EXXON
Site

Citic
Petroleum

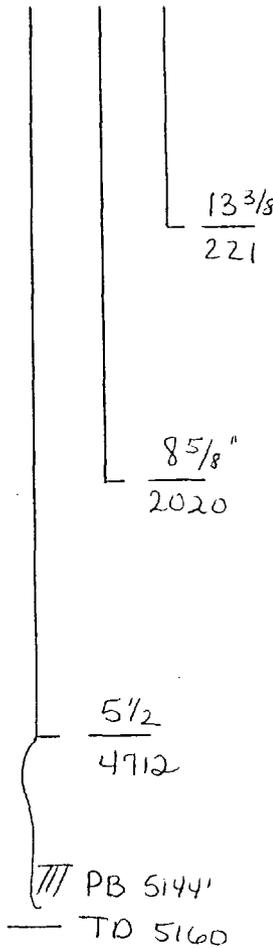
Fackem
Exxon Site

EXXON
Site

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
40	1980 FWL & 660 FNL	7	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 150 SX
 TOC: 22'@ 100'FILL feet determined by CALC
 Hole size: 19"

Intermediate Casing

Size: 8 5/8 " Cemented with 250 SX
 TOC: 723'@ 100%FILL feet determined by CALC
 Hole Size: 11"

Long String

Size: 5 1/2 " Cemented with 200 SX
 TOC: 3088 @ 100%FILL feet determined by CALC
 Hole Size: 7 3/4

Total Depth: 5160

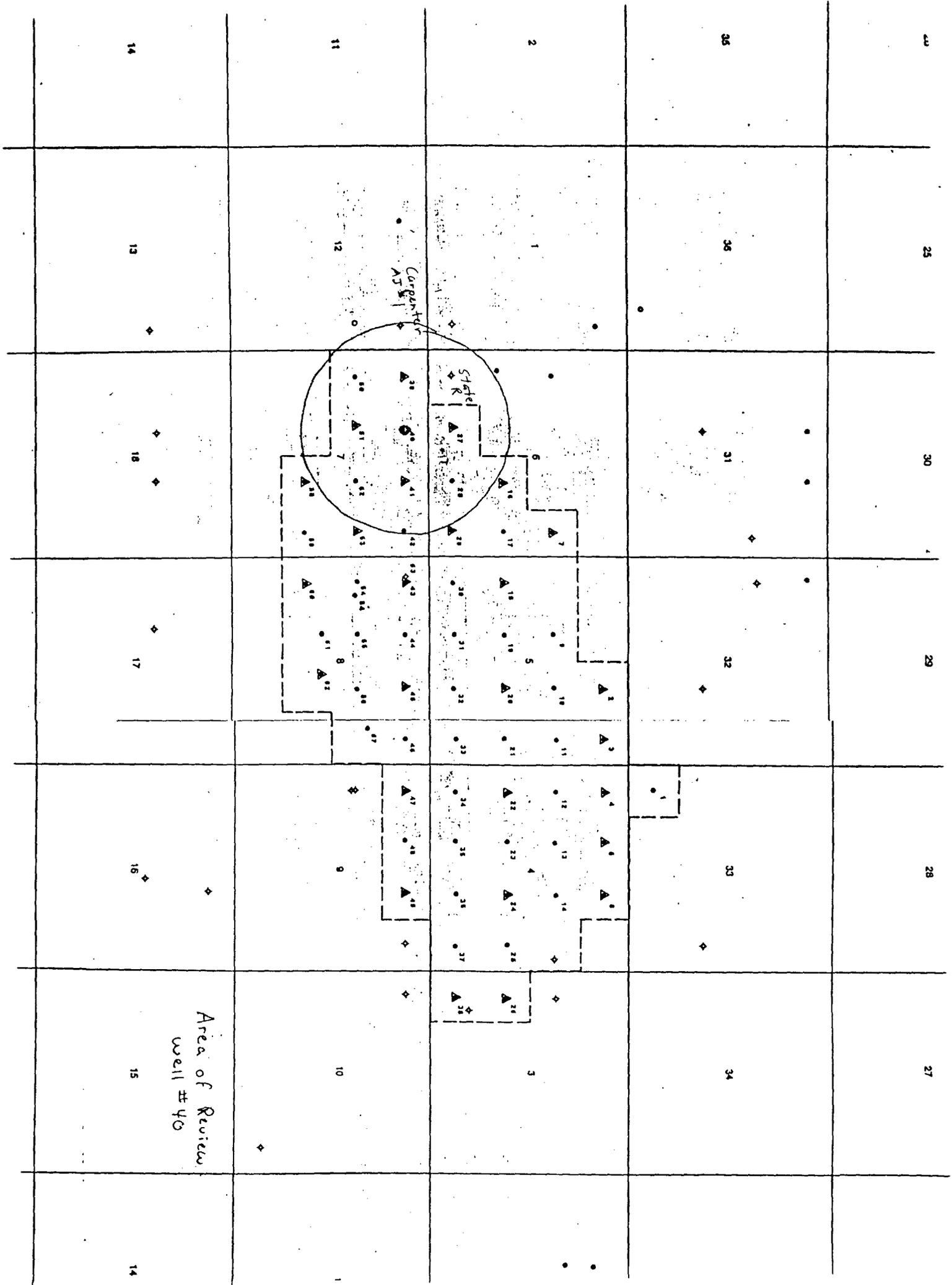
Injection Interval

4112 feet to 5144 (fill) feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
BAKER packer at 4642' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING - UNEVALUATED



24 25 30 29 28 27

36 36 31 32 33 34

2 1 6 7 5 4 3

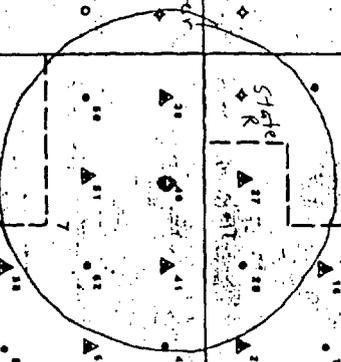
11 12 7 8 9 10

14 13 18 17 16 15

Area of Review
Well # 46

Carpenter
AJ & S

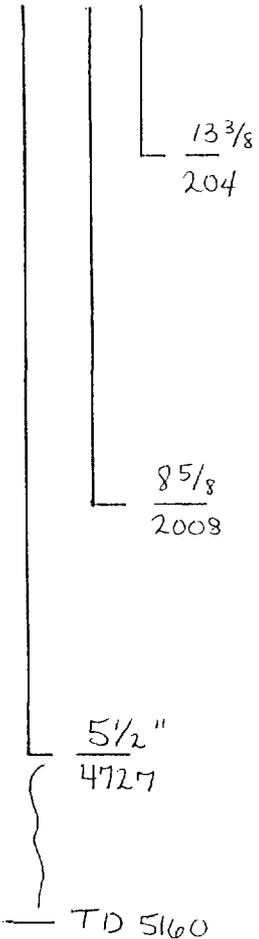
State
R



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
42	660 FNL & 660 FEL	7	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX
 TOC: CIRC @ 50%EFF feet determined by CALC
 Hole size: 16"

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX
 TOC: 1590 @ 75%EFF feet determined by CALC
 Hole Size: 11 1/2

Long String

Size: 5 1/2 " Cemented with 200 SX
 TOC: 3011' @ 75%EFF feet determined by CALC
 Hole Size: 7"

Total Depth: 5160

Injection Interval

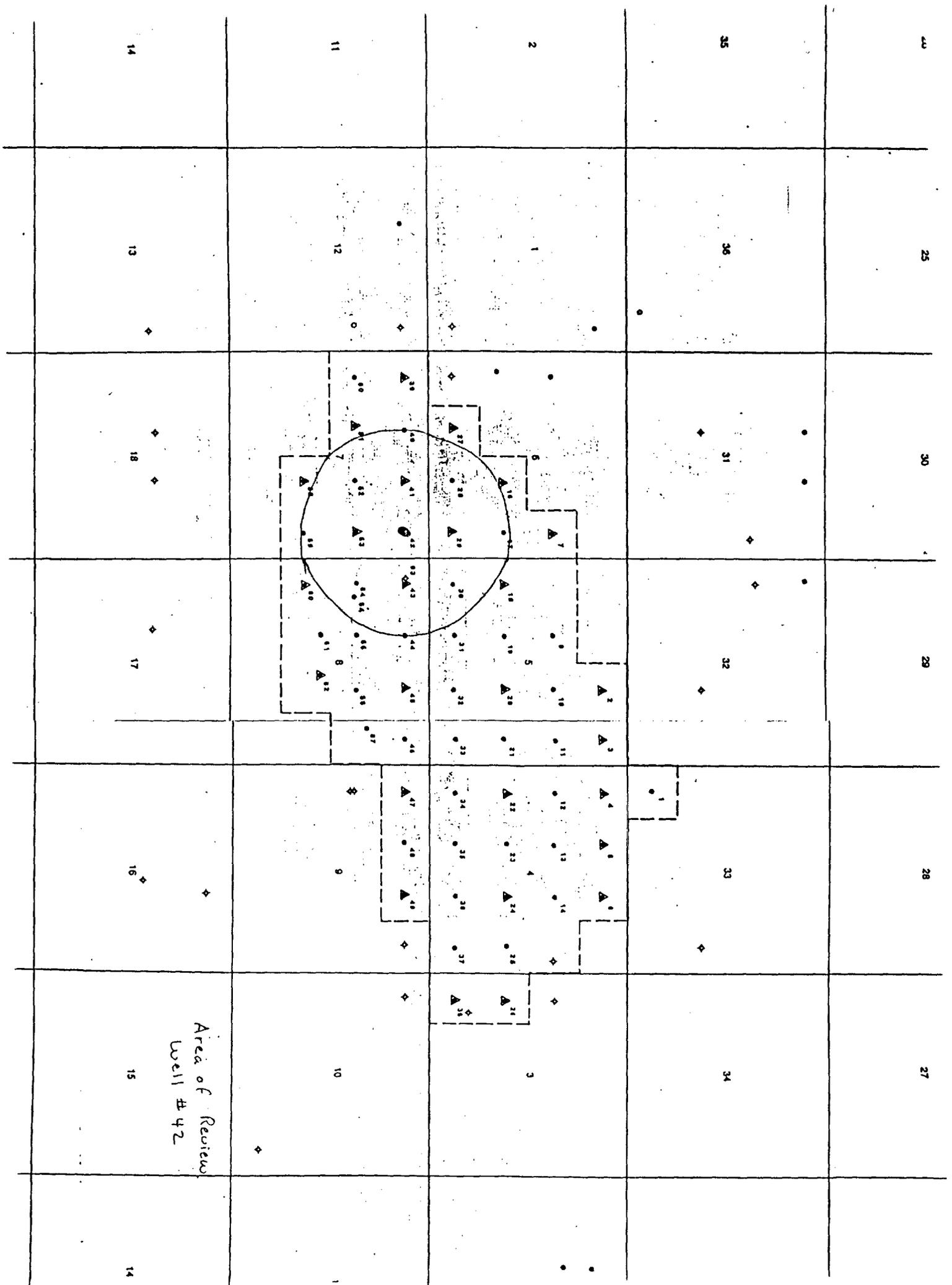
4727 feet to 5160 feet
 (perforated or open-hole indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING - UNEVALUATED



Area of Review
Well #42

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
44	1980 FWL & 660 FNL	8	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	

WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO

Tubular Data

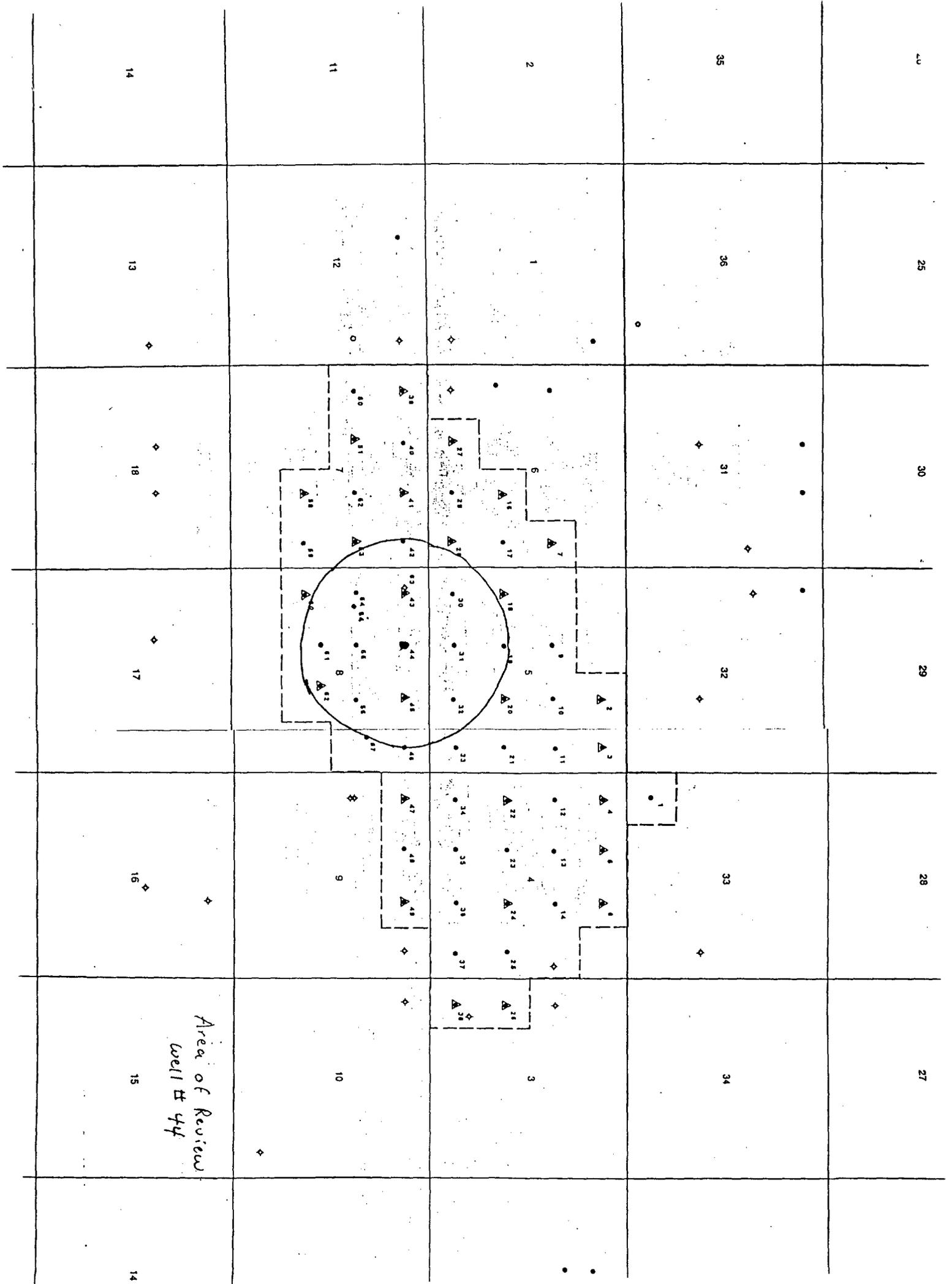
<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p align="center">13 3/8 197'</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p align="center">8 5/8 2018</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p align="center">5 1/2 4730'</p> </div> <p>TD 5160</p> </div>	<p><u>Surface Casing</u></p> <p>Size: <u>13 3/8</u>" Cemented with <u>340</u> SX</p> <p>TOC: <u>CIRC</u> feet determined by <u>CALC</u></p> <p>Hole size: <u>16"</u></p>
	<p><u>Intermediate Casing</u></p> <p>Size: <u>8 5/8</u>" Cemented with <u>150</u> SX</p> <p>TOC: <u>1485 @ 80%</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>11 1/2</u></p>
	<p><u>Long String</u></p> <p>Size: <u>5 1/2</u>" Cemented with <u>200</u> SX</p> <p>TOC: <u>2539 @ 80%EFF</u> feet determined by <u>CALC</u></p> <p>Hole Size: <u>7</u></p> <p>Total Depth: <u>5160</u></p>
	<p><u>Injection Interval</u></p> <p><u>4730</u> feet to <u>5160</u> feet (perforated or <u>open-hole</u> indicate which)</p>

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING - UNEVALUATED

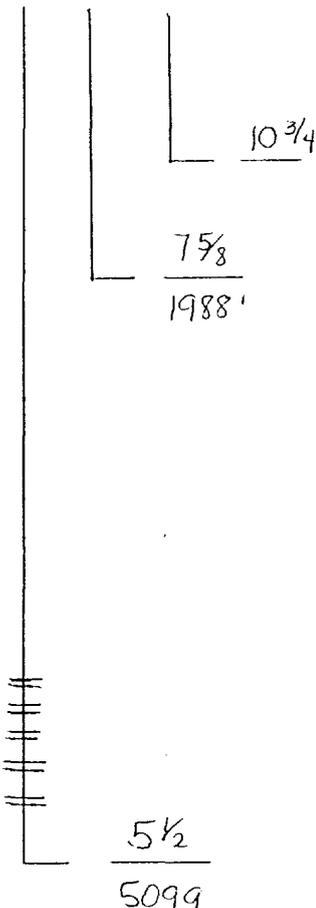


Area of Review
well # 44

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
46	660 FNL & 660 FEL	8	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 200 SX

TOC: CIRC feet determined by CALC

Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 650 SX

TOC: CIRC feet determined by CALC

Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 1709 feet determined by CALC

Hole Size: 6 3/4 PERFS:

- 4730-60 5050-55
- 4780-4810 5085-95
- 4870-80
- 4910-15
- 4980-5040

Total Depth: 5100

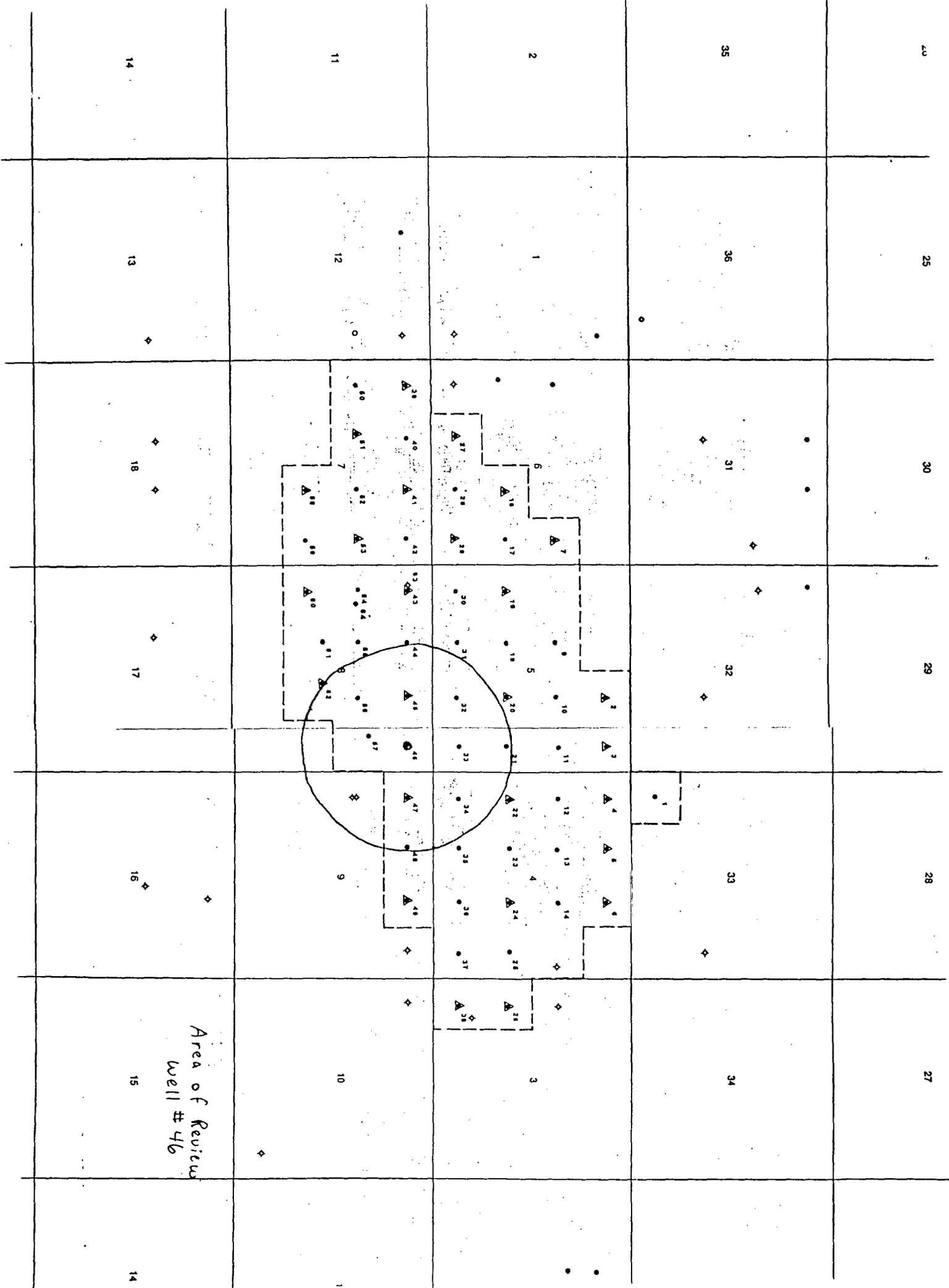
Injection Interval

4730 feet to 5095 feet
 (perforated) or open-hole, indicate which

Tubing size 2 3/8" lined with IPC set in a
BAKER packer at 5028' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCER
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING - UNEVALUATED



Area of Review
Well # 46

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

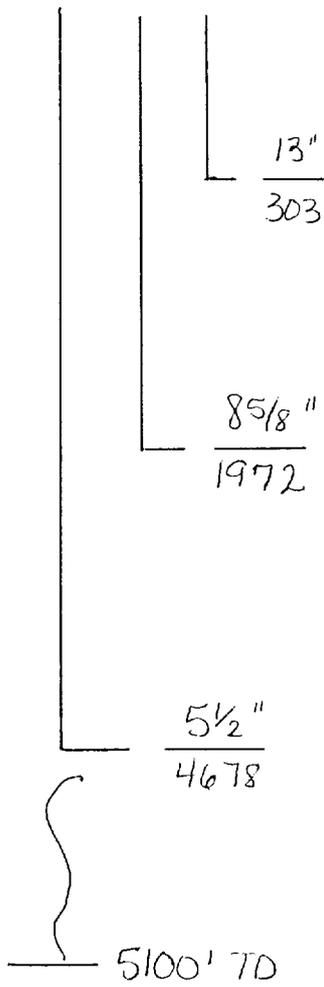
OPERATOR

LEASE

48 1980 FWL & 660 FNL 9 17S 36E NMPM
 WELL NO. FOOTAGE LOCATION SEC. TOWNSHIP RANGE

WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO

Tubular Data



Surface Casing

Size: 13 " Cemented with 285 SX

TOC: CMT CIRC feet determined by OBSV.

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 770 SX

TOC: CIRC @ 60%FILL feet determined by CALC

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 1800 SX

TOC: CIRC @ 60%FILL feet determined by CALC

Hole Size: 7 3/4

Total Depth: 5100

Injection Interval

CIBP @ 4630'
w/40' CMT on top

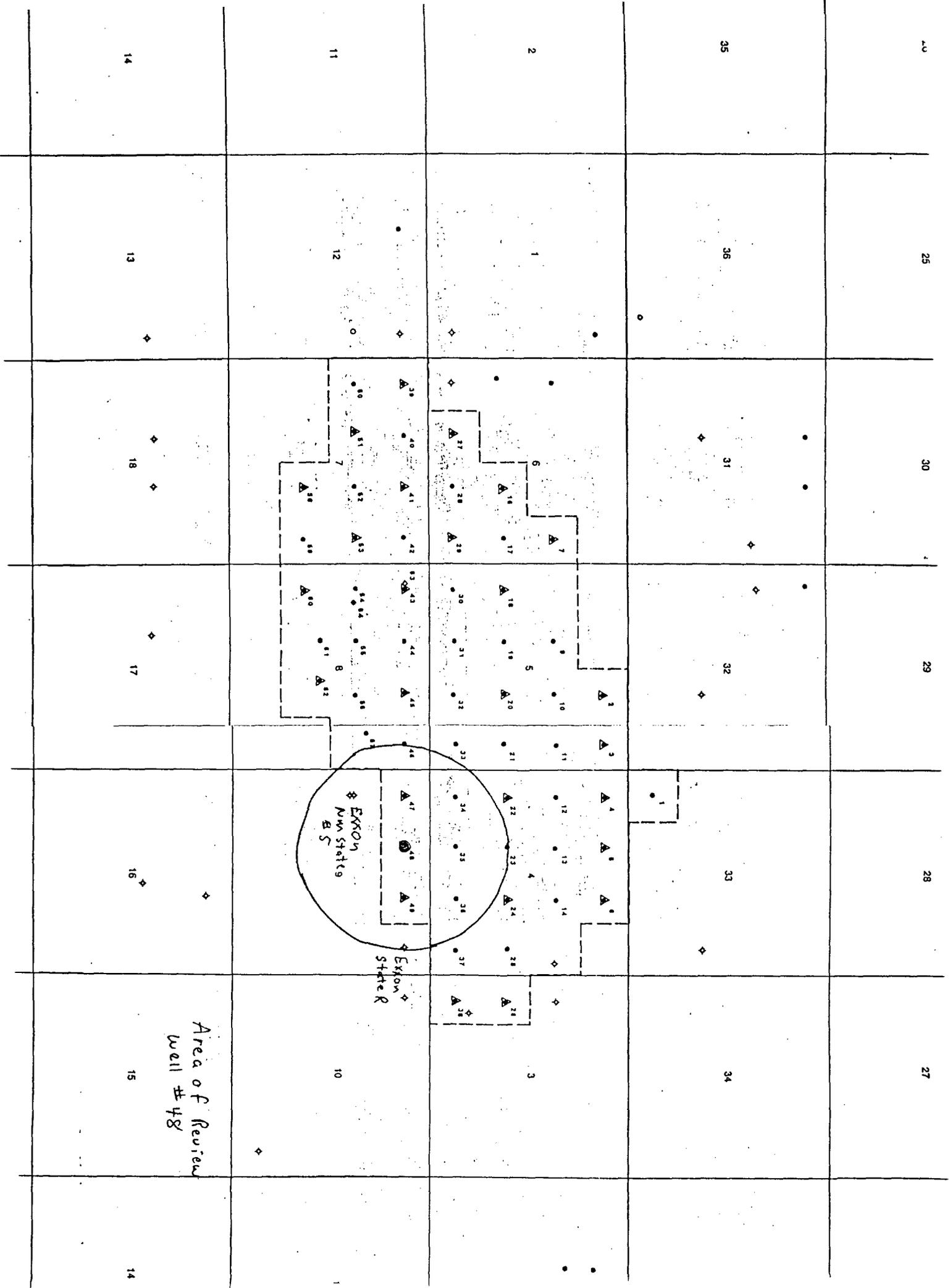
4678 feet to 5100 feet
 (perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
 NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

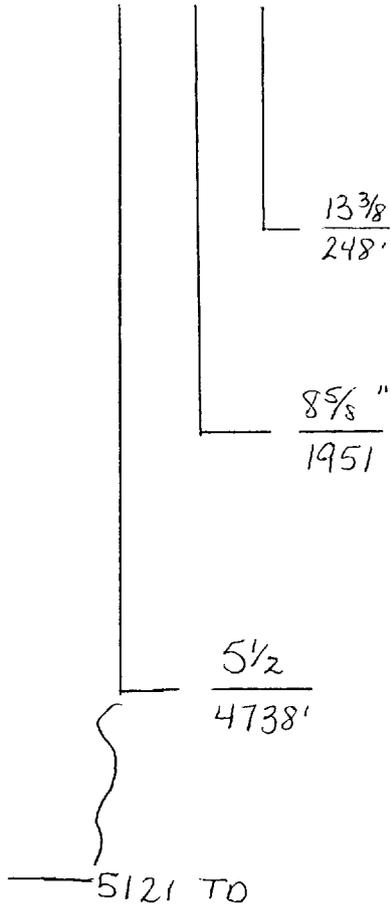
GRAYBURG - OVERLYING - UNEVALUATED



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
50	660 FWL & 1980 FNL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: CIRC feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 450 SX

TOC: 400'@ 75%FILL feet determined by

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 450 SX

TOC: 1739'@ 75% feet determined by

Hole Size: 7 3/8

Total Depth: 5121

Injection Interval

CIBP @ 4640

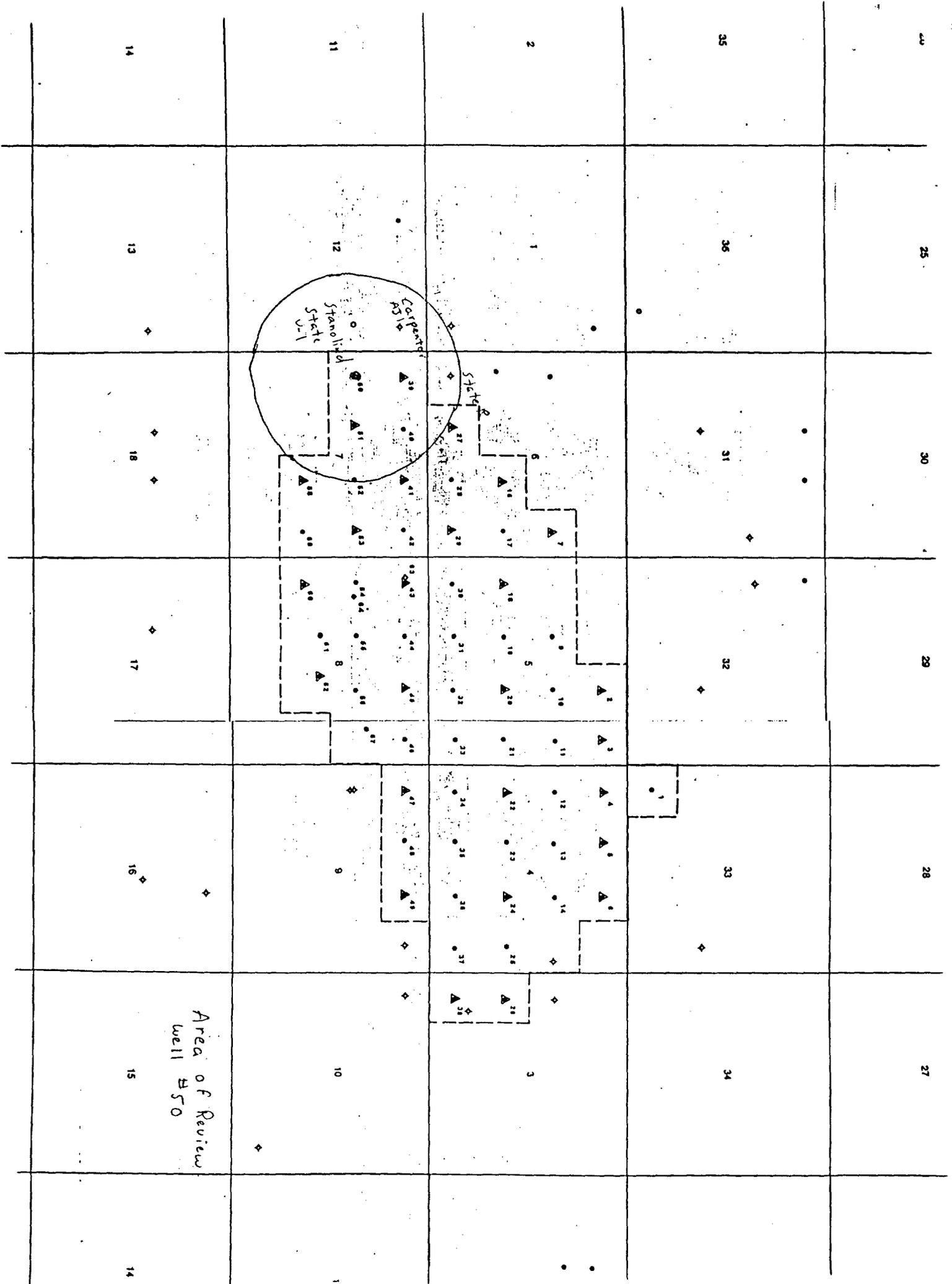
4738 feet to 5121 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING - UNEVALUATED



Area of Review
well ASO

Carpenter
AS10
Stanford
State
U-1

State

14

13

18

17

16

15

14

11

12

7

8

9

10

1

2

1

6

5

4

3

1

35

35

31

32

33

34

24

25

30

29

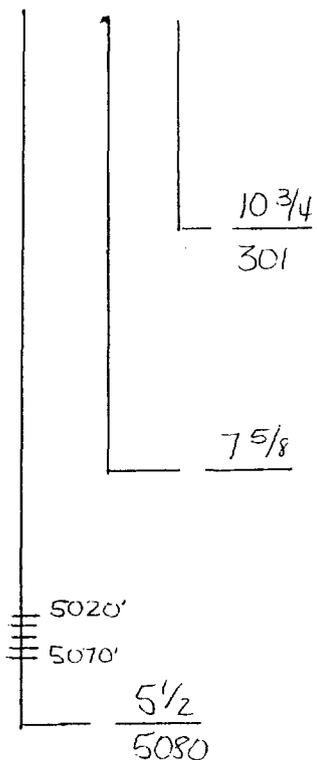
28

27

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT			
OPERATOR		LEASE			
61	2310 FSL & 1980 FWL	8	17S	36E	NMPM
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE	
WEST LOVINGTON FIELD, LEA COUNTY, NEW MEXICO					

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 300 SX

TOC: CIRC feet determined by CALC

Hole size: 15

Intermediate Casing

Size: 7 5/8 " Cemented with 500 SX

TOC: CIRC feet determined by CALC

Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 1050 SX

TOC: CIRC feet determined by CALC

Hole Size: 6 3/4

Total Depth: 5080 CIBP @ 4954
Perfs: 5020-70

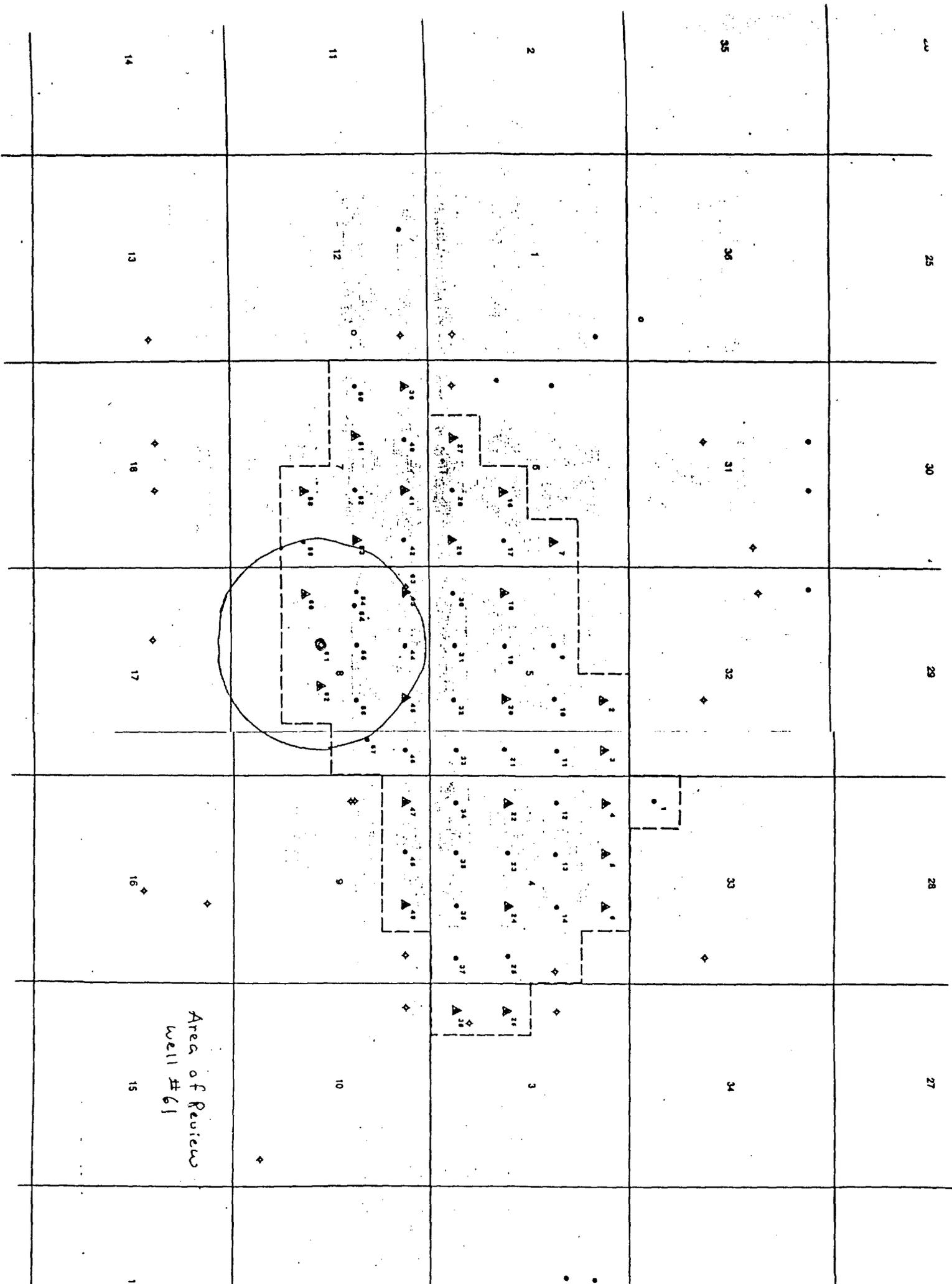
Injection Interval

5020 feet to 5070 feet
(perforated or open-hole, indicate which)

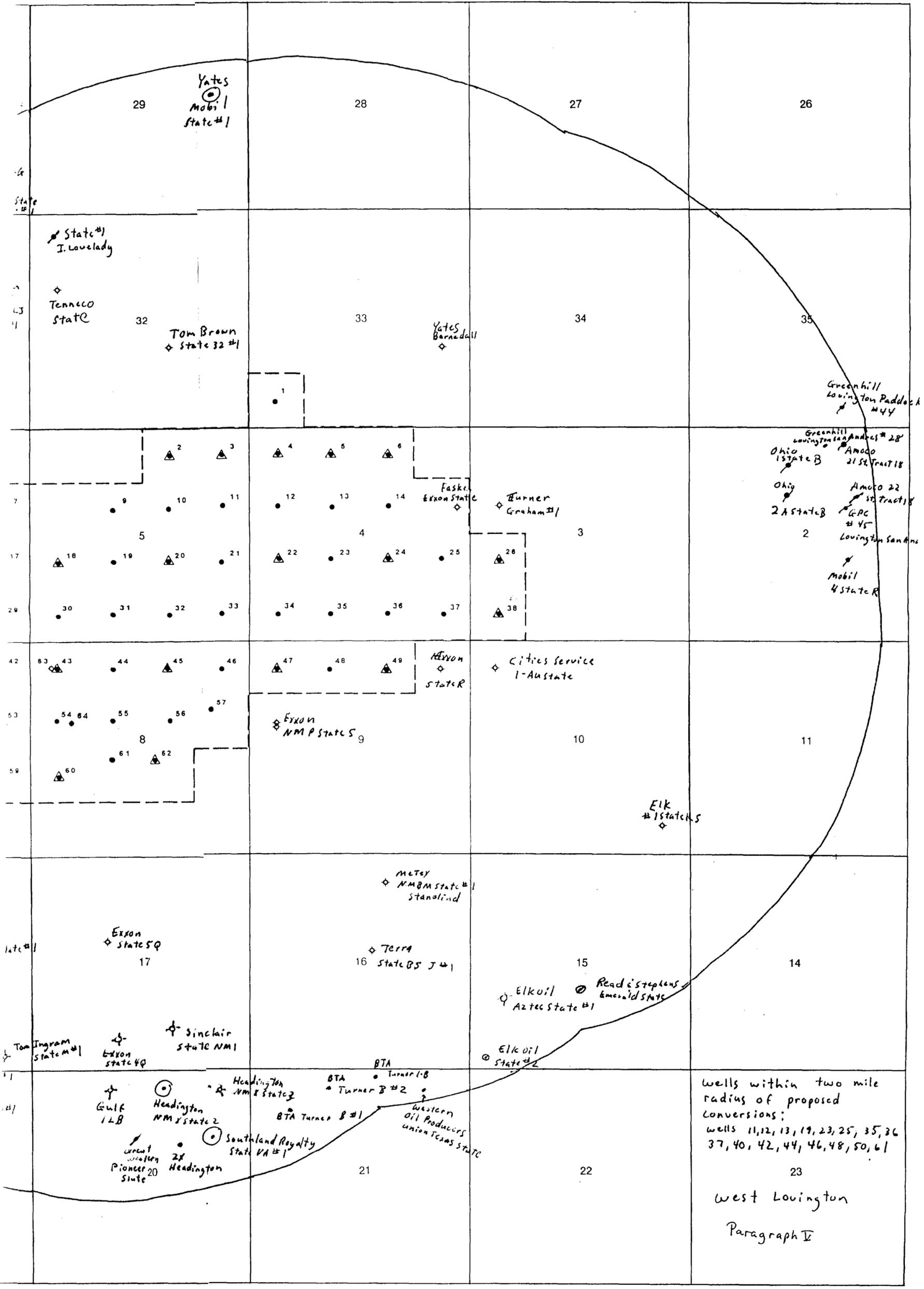
Tubing size NONE lined with -- set in a
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

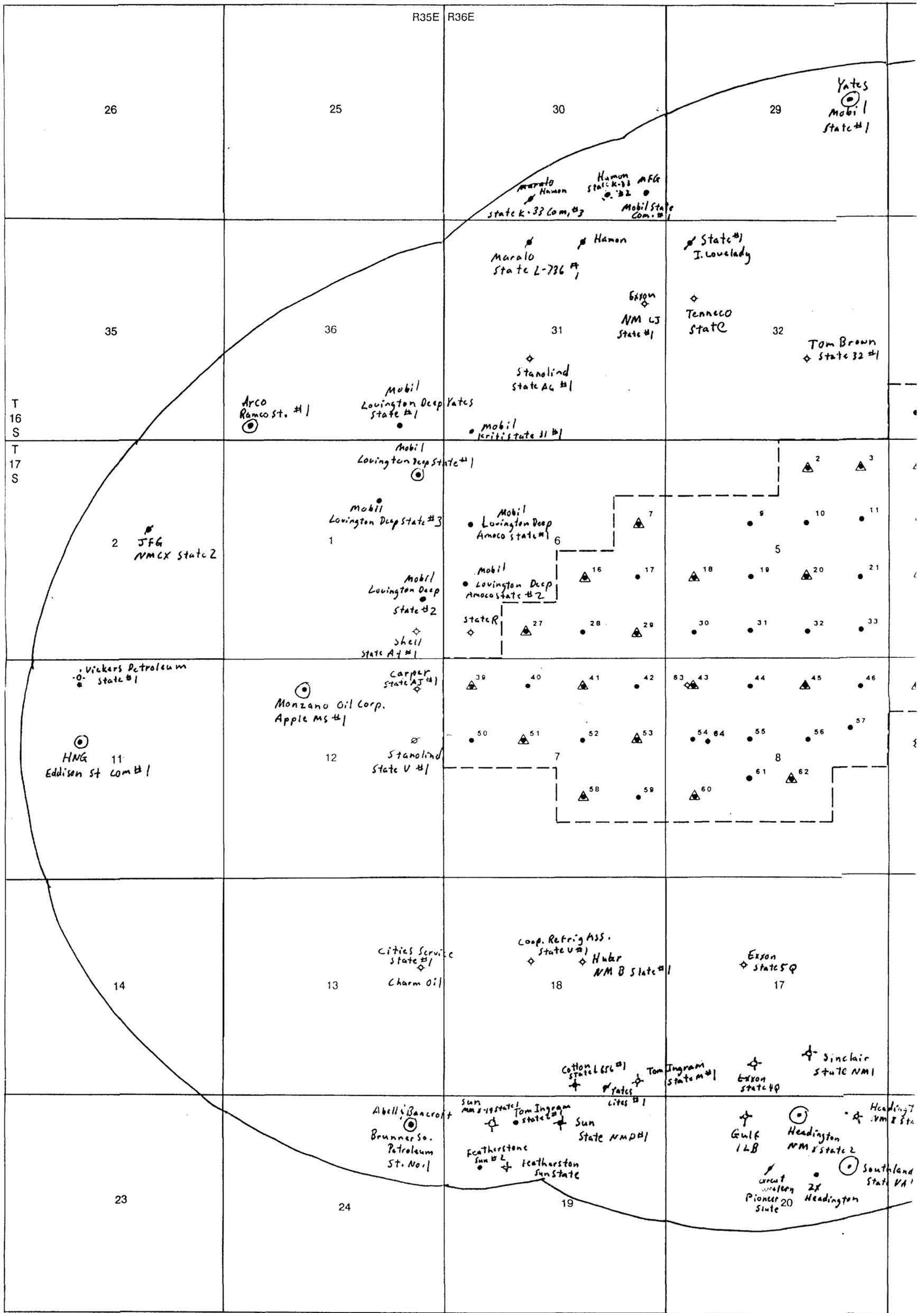
Other Data

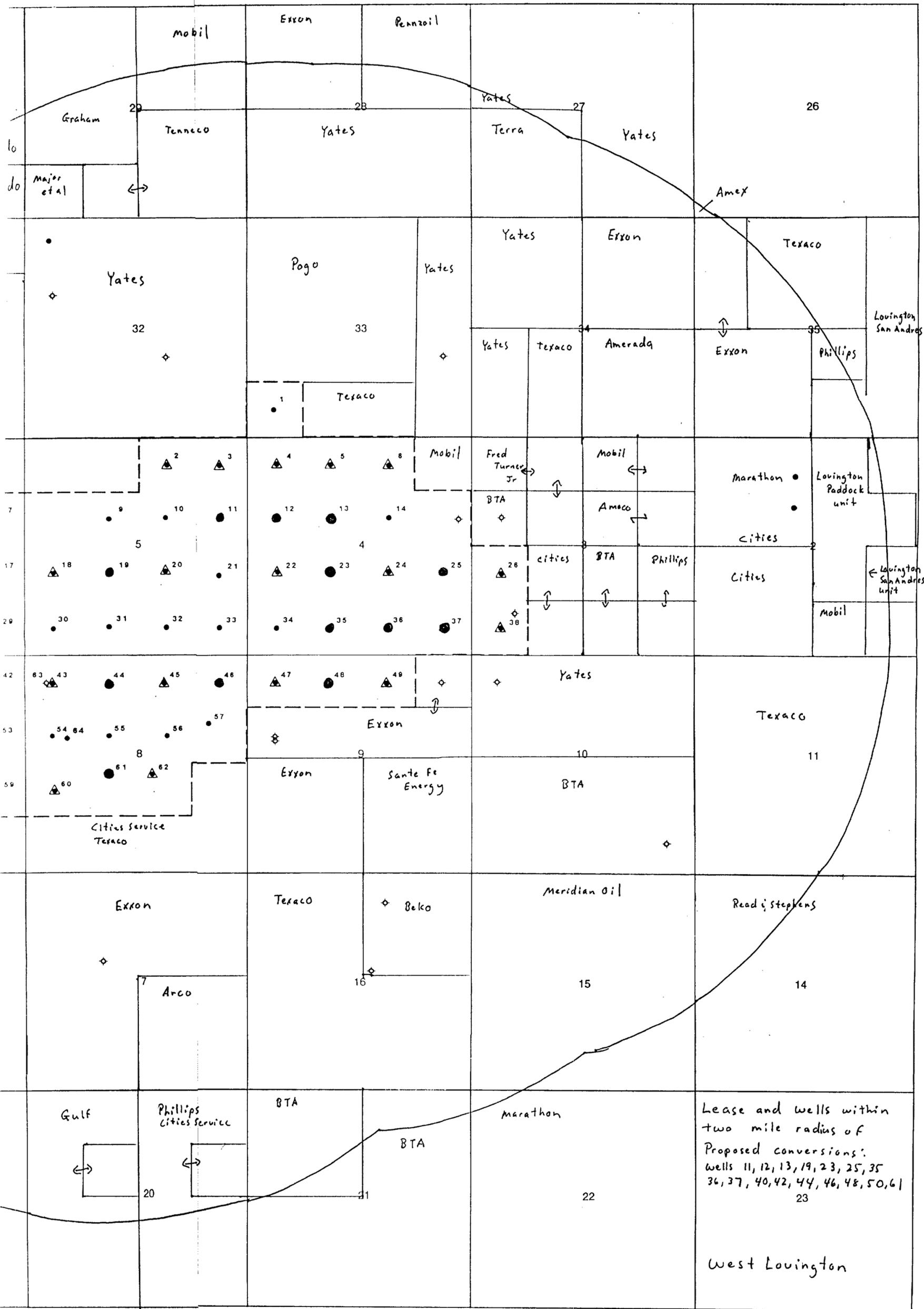
1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING - UNEVALUATED

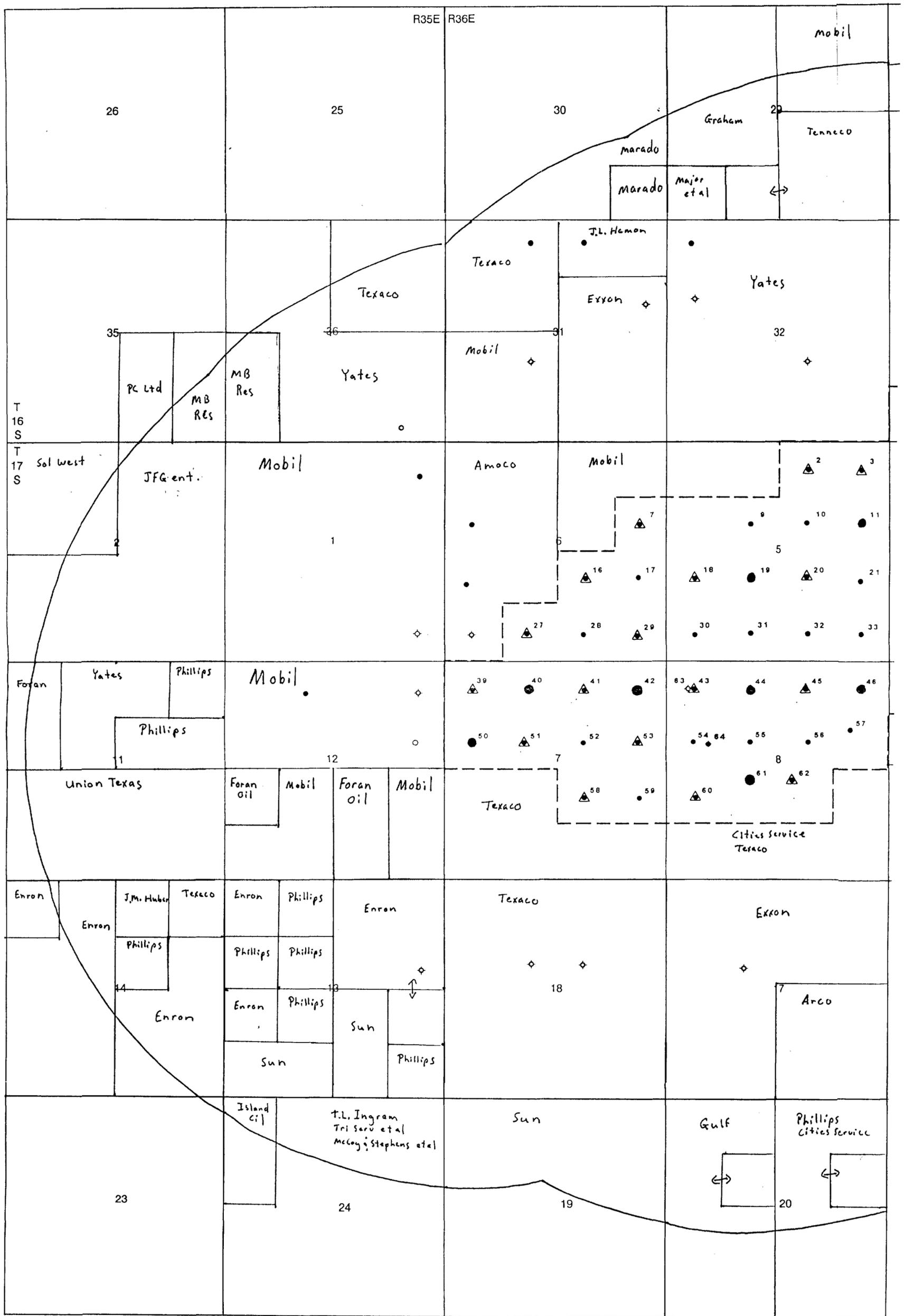


Area of Review
Well # 61









VI. Listed below is a tabulation of all wells which are in the one-half mile area of review.

Greenhill Petroleum Well No's:

- 37 - 24, 25, 26, 36, 37, 38, 49
Exxon New Mexico State 'R' #1, Cities State 'AU' #1, Fasken Exxon State #1, Turner Graham #1
- 25 - 14, 23, 24, 25, 26, 36, 37, 38
Exxon New Mexico State 'R' #1, Turner Graham #1, Fasken Exxon State #1
- 36 - 14, 23, 24, 25, 34, 35, 36, 37, 38, 48, 49
Exxon New Mexico State 'R' #1
- 35 - 13, 22, 23, 24, 33, 34, 35, 36, 37, 47, 48, 49
- 23 - 5, 12, 13, 14, 21, 22, 23, 24, 25, 34, 35, 36, 48
- 13 - 4, 5, 6, 11, 12, 13, 14, 22, 23, 24, 35
- 12 - 1, 3, 4, 5, 10, 11, 12, 13, 14, 21, 22, 23, 34
- 11 - 2, 3, 4, 9, 10, 11, 12, 13, 20, 21, 22, 33
- 46 - 21, 32, 33, 34, 44, 45, 46, 47, 48, 56, 57, 62
Exxon New Mexico State 'P' #1
- 61 - 43, 44, 45, 54, 64, 55, 56, 57, 59, 60, 61, 62
- 42 - 17, 28, 29, 30, 40, 41, 42, 43, 44, 52, 53, 54, 64, 59, 63
- 40 - 27, 28, 39, 40, 41, 42, 50, 51, 52
Exxon New Mexico State 'R' #1, Carpenter State 'AJ' #1
- 50 - 39, 40, 50, 51, 52
Carpenter State 'AJ' #1, Stanolind State 'V' #1, Exxon New Mexico State 'R' #1
- 44 - 19, 30, 31, 32, 42, 63, 43, 44, 45, 46, 54, 64, 55, 56, 57, 61, 62
- 19 - 9, 10, 17, 18, 19, 20, 21, 30, 31, 32, 44
- 48 - 23, 34, 35, 36, 46, 47, 49
Exxon New Mexico State 'P' #1, Exxon New Mexico State 'R' #1

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

OPERATOR

LEASE

1 PA

660 FSL & 660 FWL

33

16S

36E

WELL NO.

FOOTAGE LOCATION

SEC.

TOWNSHIP

RANGE

LEA COUNTY, NEW MEXICO

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC.

Hole size: 15"

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1199 feet determined by 50% calc

Hole Size: 12 1/4

Long String

Size: 5 1/2 " Cemented with 200 SX

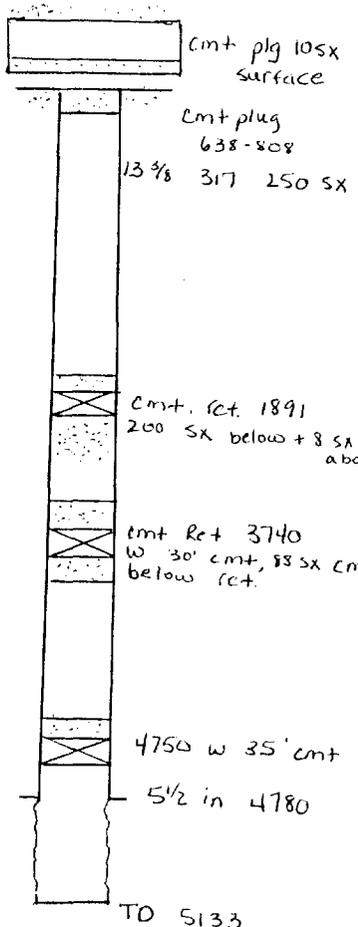
TOC: 3660 feet determined by 80% calc PA

Hole Size: 7 7/8

Total Depth: 5133

Injection Interval

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



PA- 7/5/84
date completed
6/5/84
open hole

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

Other Data

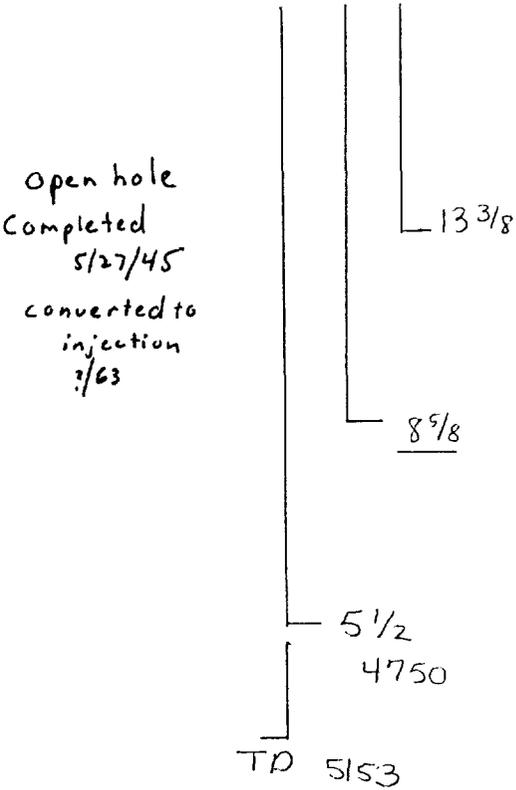
1. Name of the injection formation _____
2. Name of Field or Pool (If applicable) _____
3. Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give 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

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
2	660 FNL & 1980 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 700 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 250 SX

TOC: 3358 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5100

Injection Interval

4820 feet to 5100 feet
(perforated or open-hole, indicate which)

Tubing size 2" lined with IPC set in a
(material)
packer at 4623' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
3	660 FNL & 660 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 12 3/4 " Cemented with 200 SX

TOC: SURFACE feet determined by CAL

Hole size: 14 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1374 feet determined by CALC 50%

Hole Size: 10 3/4

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 2263 feet determined by CALC 80%

Hole Size: 7 5/8

Total Depth: 5125

Injection Interval

4750 feet to 5125 feet
(perforated or open-hole, indicate which)

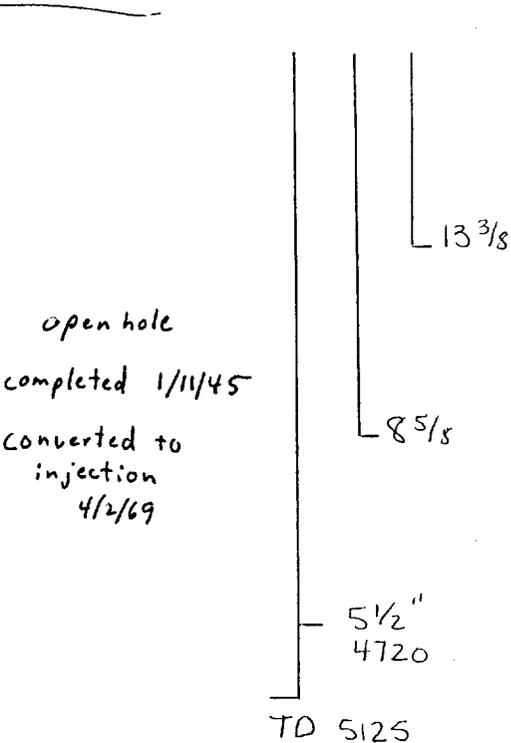
Tubing size 2 3/8" lined with IPC set in a
(material)
packer at 4653" feet.
(brand & model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres Dolomite
2. Name of Field or Pool (If applicable) Lovington (San Andres) West
3. Is this a new well drilled for injection? no
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING



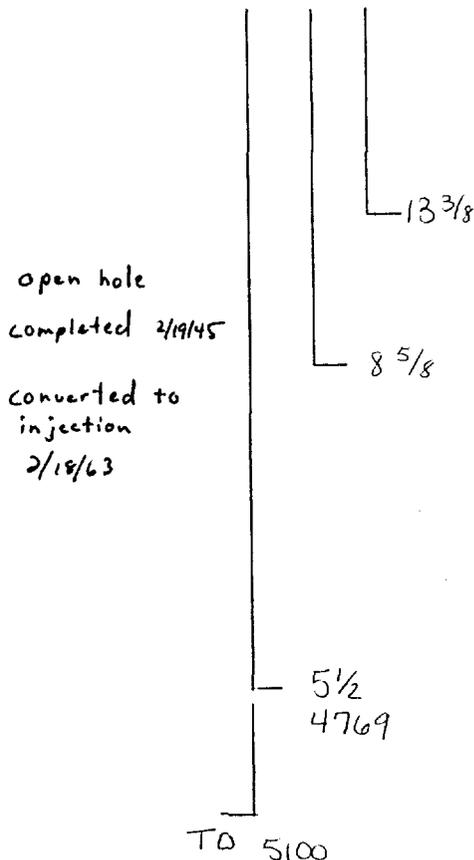
*open hole
completed 1/11/45
converted to
injection
4/2/69*

*5 1/2"
4720
TD 5125*

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
4	660 FNL & 660 FWL	4	17S	36F
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing
 Size: 13 3/8 " Cemented with 200 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17 1/4

Intermediate Casing
 Size: 8 5/8 " Cemented with 200 SX
 TOC: 1398 feet determined by CALC 50%
 Hole Size: 12 1/2

Long String
 Size: 5 1/2 " Cemented with 400 SX
 TOC: 2590 feet determined by CALC 80%
 Hole Size: 7 7/8
 Total Depth: 5100

Injection Interval
4765 feet to 5100 feet
 (perforated or open-hole, indicate which)

Tubing size 2" lined with IPC set in a
 (material)
4712' packer at 4712' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

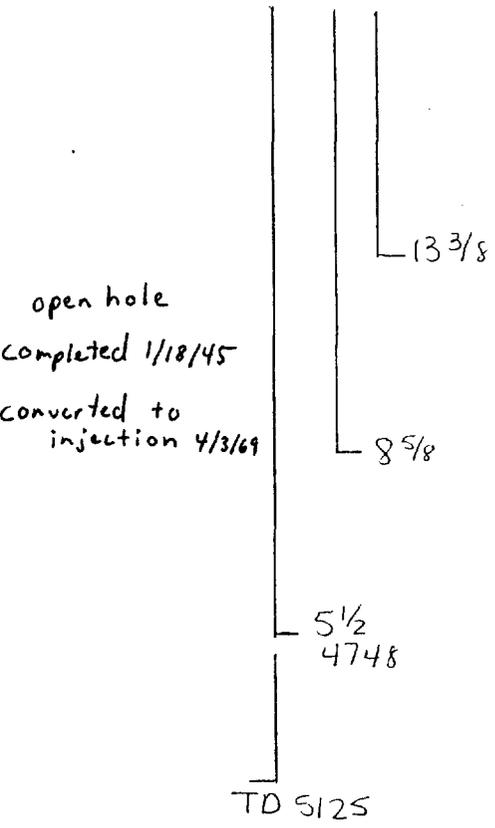
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
5	1980 FWL & 660 FNL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 20 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1361 feet determined by CALC 50%

Hole Size: 12 1/2

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 2569 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5125

Injection Interval

4760 feet to 5125 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
--- packer at 4663' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

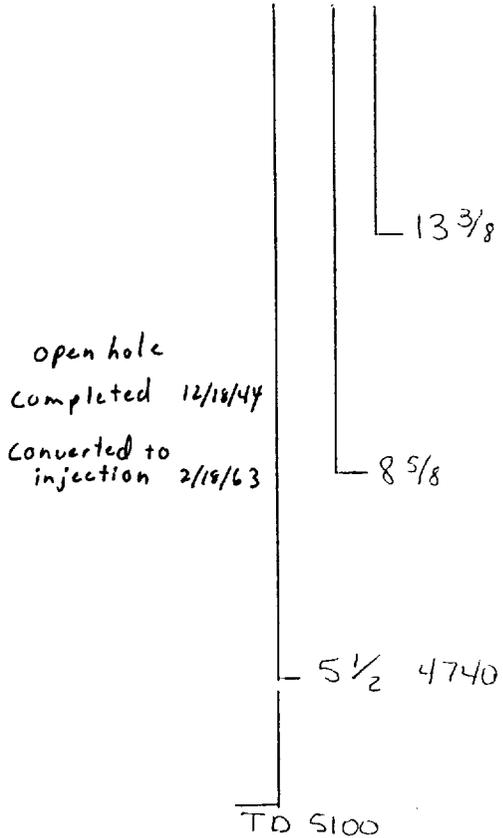
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST "
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
6	660 FNL & 1980 FEL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17"

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX
 TOC: 1249 feet determined by CALC 50%
 Hole Size: 11"

Long String

Size: 5 1/2 " Cemented with 200 SX
 TOC: 2900 feet determined by CALC 80%
 Hole Size: 7 7/8
 Total Depth: 5100

Injection Interval

4755 feet to 5100 feet
 (perforated or open-hole, indicate which)

Tubing size 2" lined with IPC set in a
 (material)
4590' packer at 4590' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

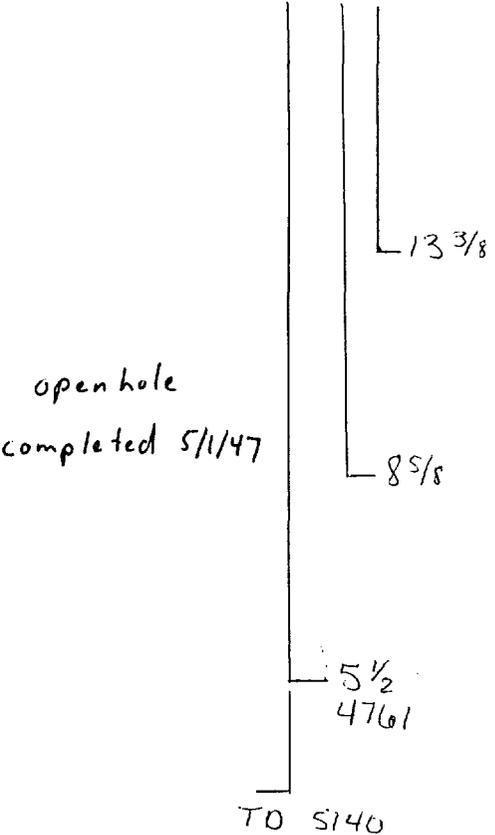
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
9	1980 FWL & 1980 FNL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 180 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 14 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 300 SX
 TOC: 1071 feet determined by CALC 50%
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 2582 feet determined by CALC 80%
 Hole Size: 7 7/8

Total Depth: 5140

Injection Interval

4800 feet to 5140 feet
 (perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

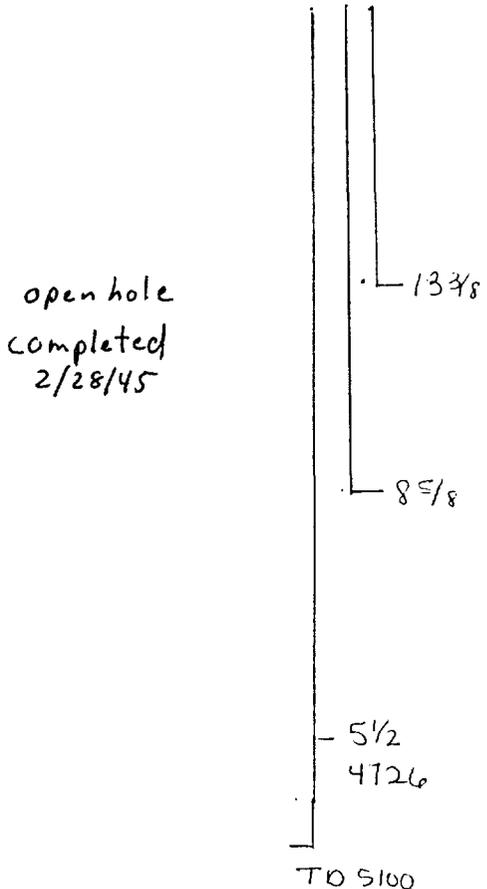
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
10	1982 FNL & 1981 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX

TOC: 119 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 300 SX

TOC: 3091 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5100

Injection Interval

4750 feet to 5100 feet
(perforated or open-hole indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
packer at 4551' feet.
(brand & model)

(or describe any other casing-tubing seal).

Other Data

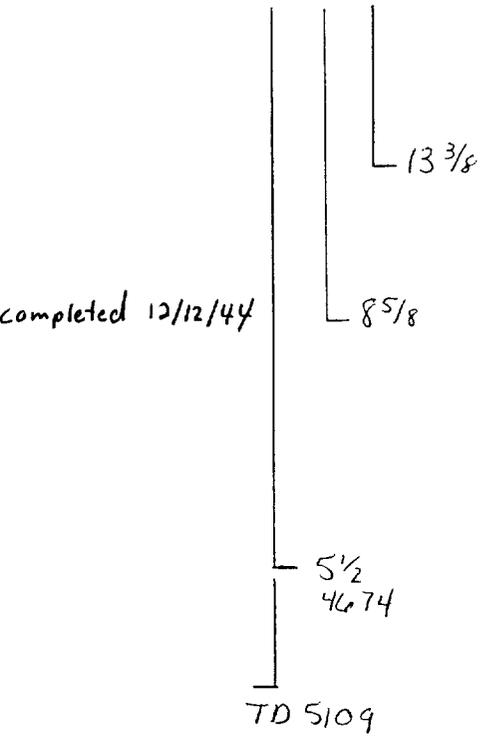
- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
14	1980 FNL 1880 FEL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 235 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX

TOC: 134.6 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 2351 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5109

Injection Interval

4760 feet to 5109 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

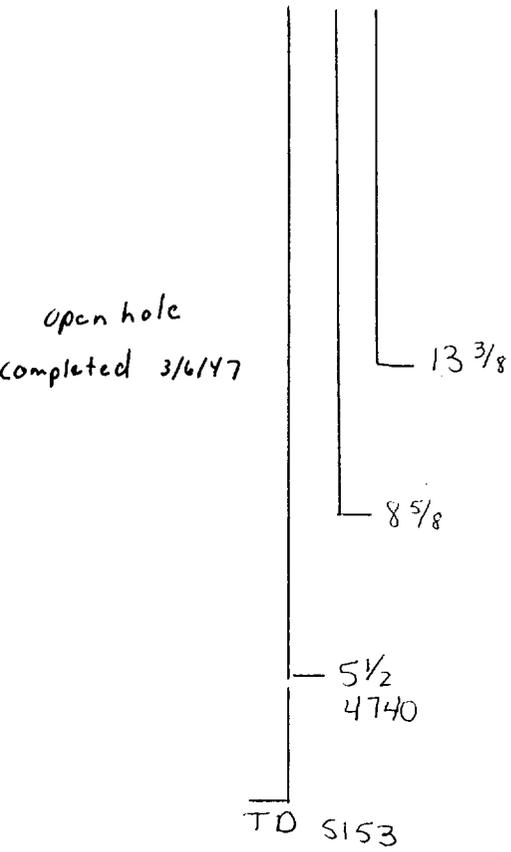
INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

OPERATOR	LEASE			
17	1980 FSL & 660 FEL	6	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1518 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3578 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5153

Injection Interval

4750 feet to 5153 feet
(perforated or open-hole indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

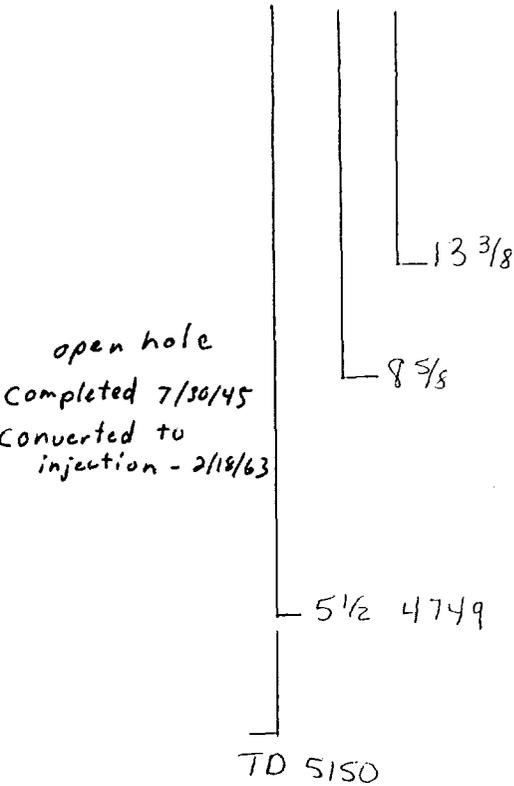
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used). NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
18	1980 FSL & 660 FWL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17 3/4

Intermediate Casing

Size: 8 5/8 " Cemented with 300 SX
 TOC: 1044 feet determined by CALC 50%
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 1881 feet determined by CALC 80%
 Hole Size: 7 3/8

Total Depth: 5150

Injection Interval

4780 feet to 5150 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
 (material)
4627' packer at 4627' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

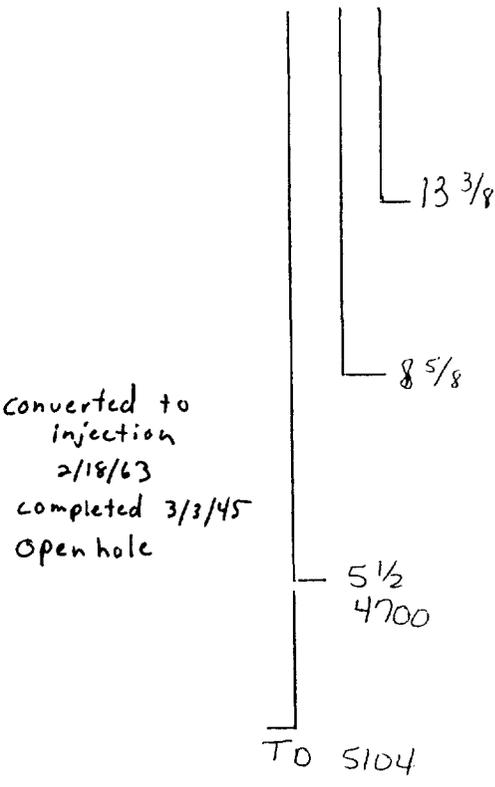
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR	LEASE			
20	1980 FSL & 1980 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 1/4 " Cemented with 200 SX

TOC: 1364 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3610 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5104

Injection Interval

4700 feet to 5104 feet
(perforated or open-hole, indicate which)

Tubing size 2" lined with IPC set in a
 (material)
 packer at 4663' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
21	1980 FSL & 660 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1364 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3266 feet determined by CALC 80%

Hole Size: 7 3/8

Total Depth: 5100

Injection Interval

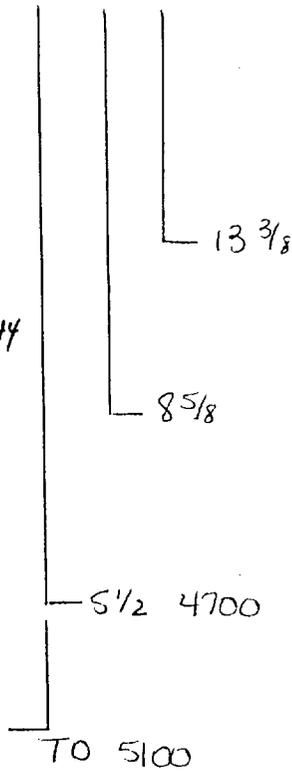
4767 feet to 5100 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

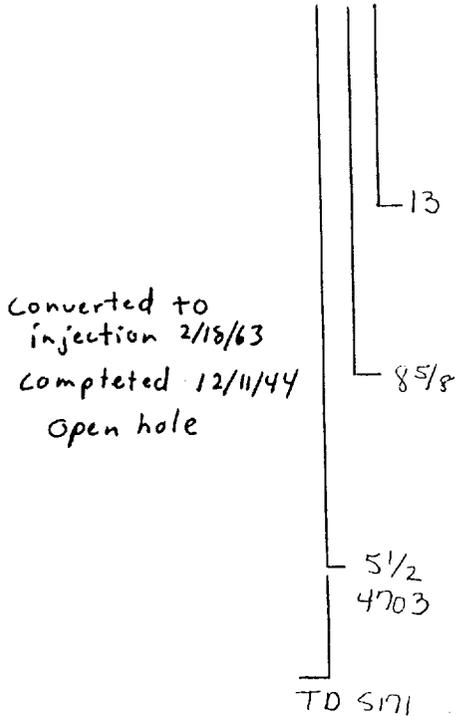
Completed 11/4/44
Open hole



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
22	1980 FSL & 660 FWL	4	17S	36S
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 " Cemented with 190 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1485 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 150 SX

TOC: 3772 feet determined by CALC 80%

Hole Size: 7 5/8

Total Depth: 5171

Injection Interval

4655 feet to 5171 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
BAKER packer at 4760' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

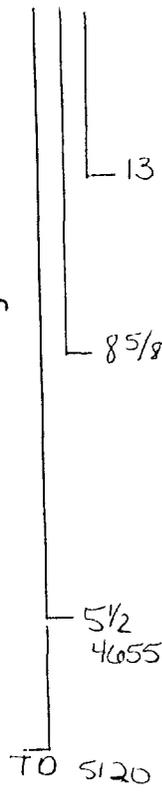
- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
24	1980 FSL & 1980 FEL	4	17S	36S
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

open hole
completed - 2/19/45
converted to injection
2/18/63



Surface Casing

Size: 13 " Cemented with 200 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX
 TOC: 93 feet determined by CALC 50%
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 2332 feet determined by CALC 80%
 Hole Size: 7 3/4

Total Depth: 5120

Injection Interval

4690 feet to 5120 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
 (material)
BAKER packer at 4600' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
26 P&A	1980 FSL & 600 FWL	3	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 190 SX

TOC: SURFACE feet determined by CALC 50%

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1534.16 feet determined by CALC 50%

Hole Size: 11 1/2

Long String

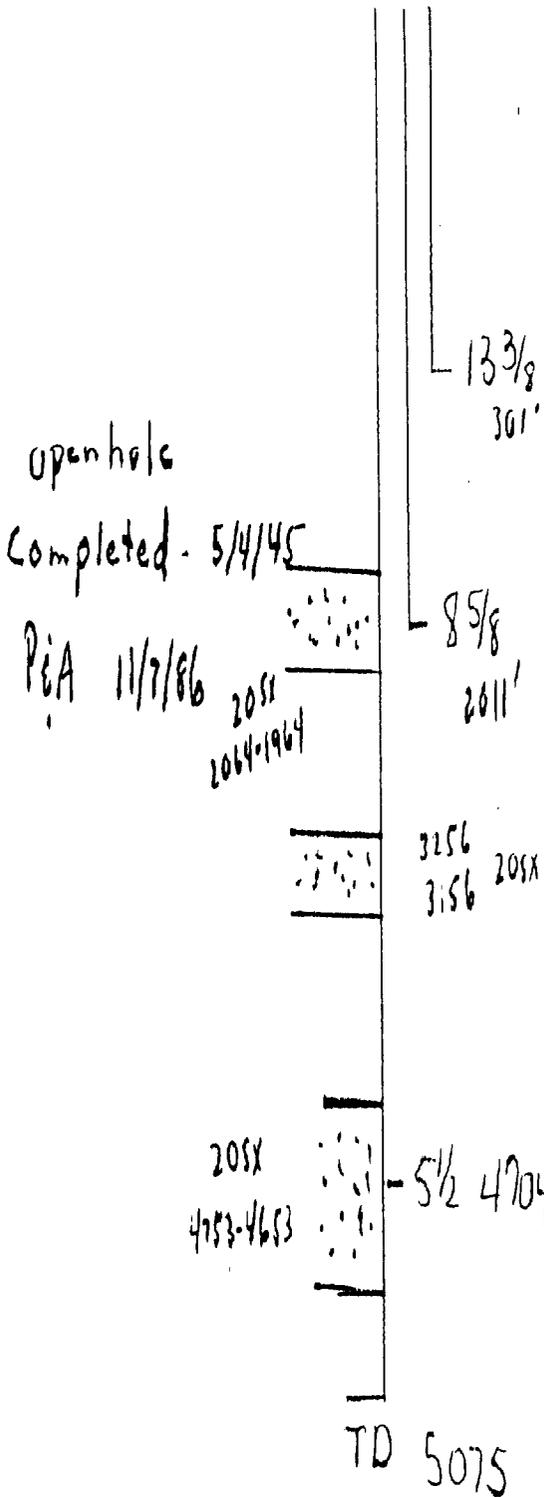
Size: 5 1/2 " Cemented with 150 SX

TOC: 3886.9 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5075

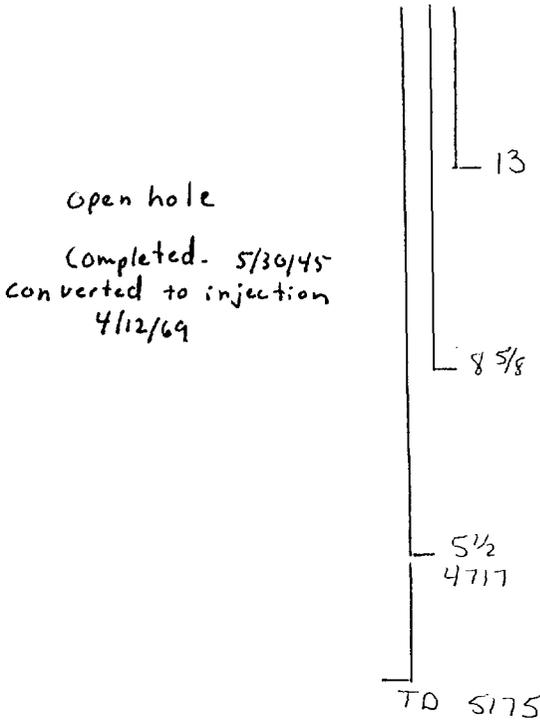
Injection Interval



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
27	660 FSL & 1980 FWL	6	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 600 SX

TOC: 78.67 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 2394 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5175

Injection Interval

4770 feet to 5175 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
packer at 4667' feet.
(brand & model)
(or describe any other casing-tubing seal).

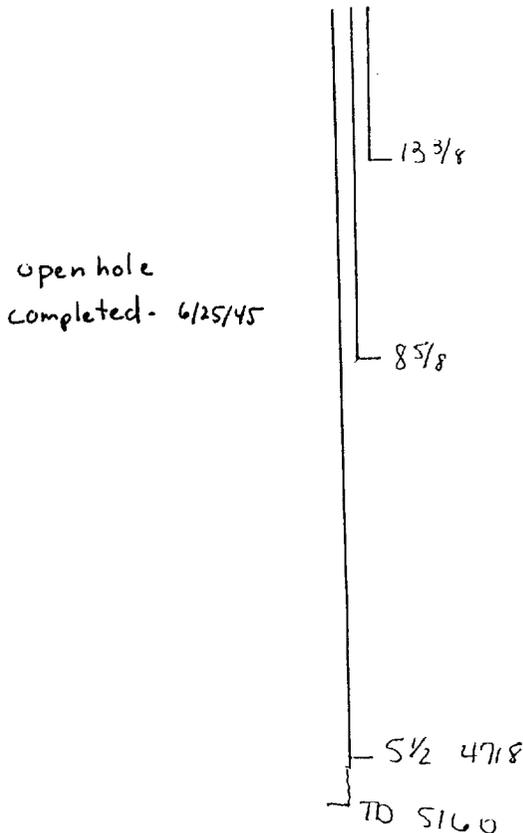
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
28	660 FSL & 1980 FEL	6	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1352 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3556 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5160

Injection Interval

4800 feet to 5160 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

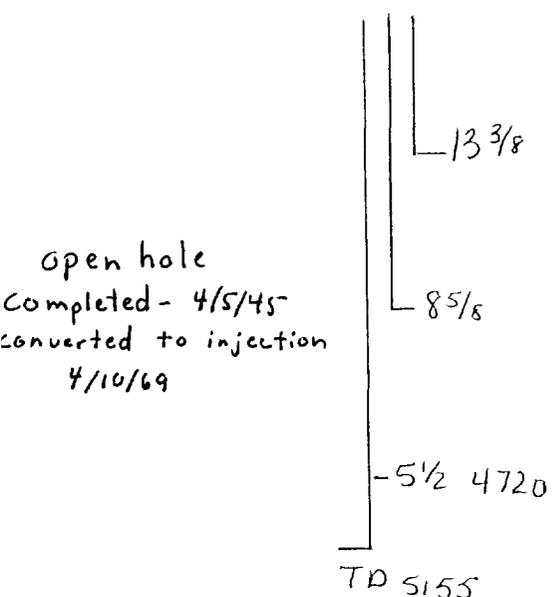
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
29	660 FSL & 660 FEL	6	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1364 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 2874 feet determined by CALC 80%

Hole Size: 7

Total Depth: 5155

Injection Interval

4735 feet to 5155 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
 _____ (material) _____ feet.
 _____ packer at 4610'
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
30	660 FSL & 660 FWL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 15

Intermediate Casing

Size: 8 5/8 " Cemented with 300 SX

TOC: 1044 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: 1861 feet determined by CALC 80%

Hole Size: 7 3/8

Total Depth: 5150

Injection Interval

4790 feet to 5150 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)

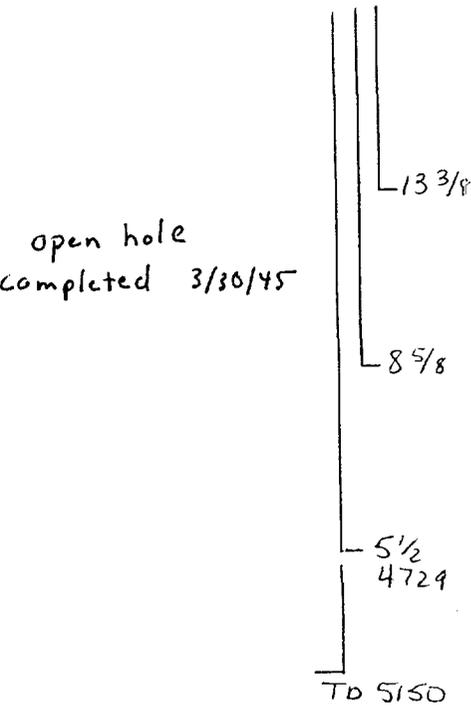
NONE packer at -- feet.
(brand & model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

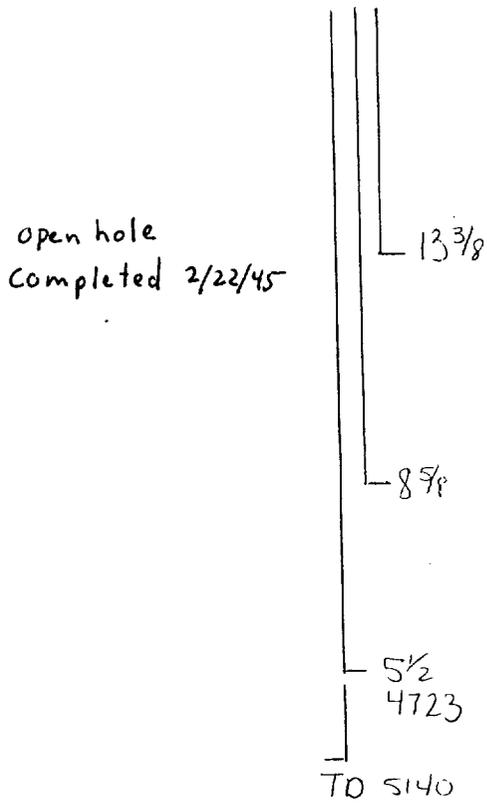
GRAYBURG - OVERLYING



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
31	660 FSL & 1980 FWL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 190 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1478 feet determined by CALC 50%

Hole Size: 11 1/2

Long String

Size: 5 1/2 " Cemented with 150 SX

TOC: 3905 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5140

Injection Interval

4784 feet to 5055 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
32	660 FSL & 1980 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1364 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3241 feet determined by CALC 80%

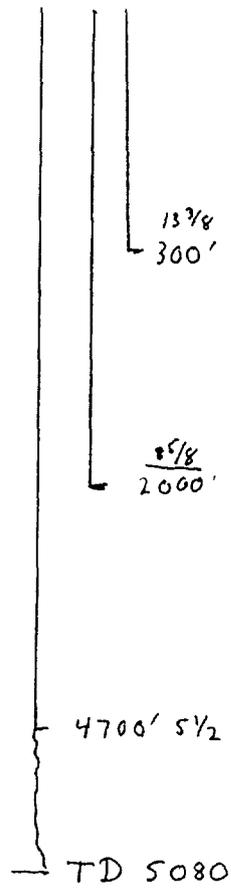
Hole Size: 7 3/8

Total Depth: 5080

Injection Interval

4700 feet to 5080 feet
(perforated or open-hole, indicate which)

open hole
Completed - 2/13/45



Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

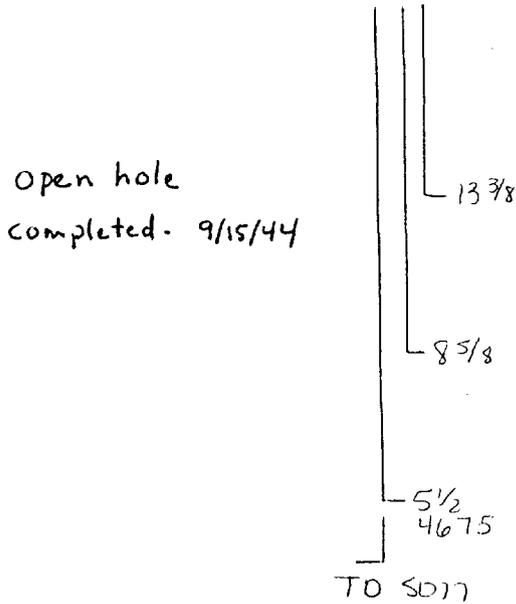
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
33	660 FSL & 660 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 " Cemented with 225 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 250 SX
 TOC: 1327 feet determined by CALC 50%
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX
 TOC: 3585 feet determined by CALC 80%
 Hole Size: 7 7/8
 Total Depth: 5077

Injection Interval

4770 feet to 5077 feet
 (perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

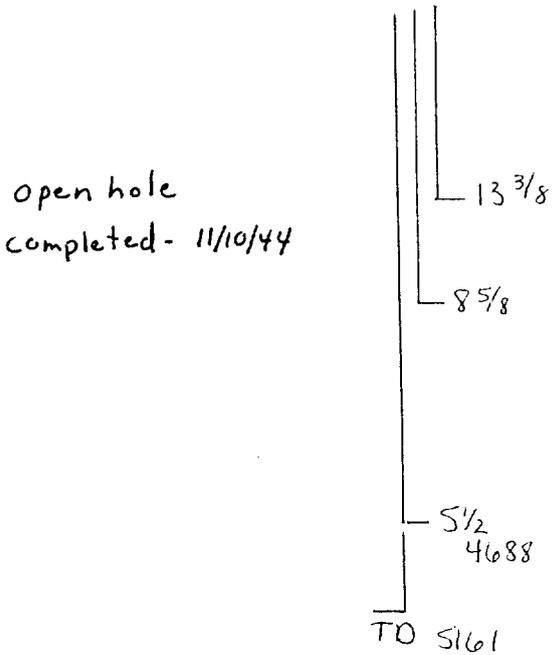
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
34	660 FWL & 660 FSL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1470 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 150 SX

TOC: 3612 feet determined by CALC 80%

Hole Size: 7 3/8

Total Depth: 5161

Injection Interval

4773 feet to 5036 feet
(perforated or open-hole indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

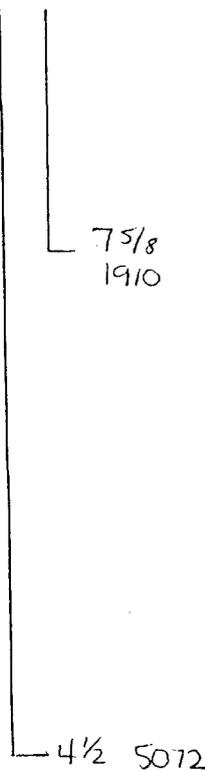
1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
38	660 FSL & 660 FWL	3	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

cased hole
completed 9/21/60
converted to injection
5/25/69



Surface Casing

Size: 7 5/8 " Cemented with 600 SX

TOC: SURFACE feet determined by CALC

Hole size: 9 7/8

Intermediate Casing

Size: -- " Cemented with -- SX

TOC: -- feet determined by --

Hole Size: --

Long String

Size: 4 1/2 " Cemented with 200 SX

TOC: 3704 feet determined by ---

Hole Size: 6 3/4

Total Depth: 5072

Injection Interval

4704 feet to 4774 feet
(perforated) or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
-- packer at 4650' feet.
(brand & model)
(or describe any other casing-tubing seal).

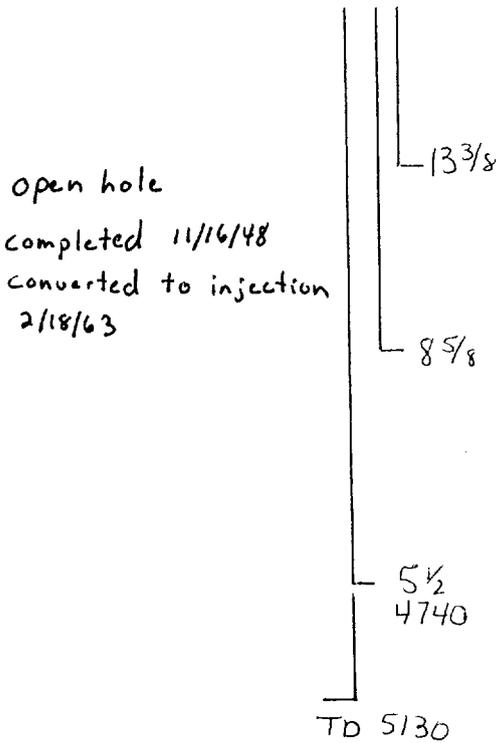
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
39	618 FWL & 660 FNL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing
 Size: 13 3/8 " Cemented with 210 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17 1/4

Intermediate Casing
 Size: 8 5/8 " Cemented with 450 SX
 TOC: 737 feet determined by CALC 50%
 Hole Size: 11

Long String
 Size: 5 1/2 " Cemented with 450 SX
 TOC: 1663 feet determined by CALC 80%
 Hole Size: 6 3/4

Total Depth: 5130

Injection Interval
4770 feet to 5130 feet
 (perforated or open-hole, indicate which)

Tubing size 2" lined with IPC set in a
 (material)
--- packer at 4695' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

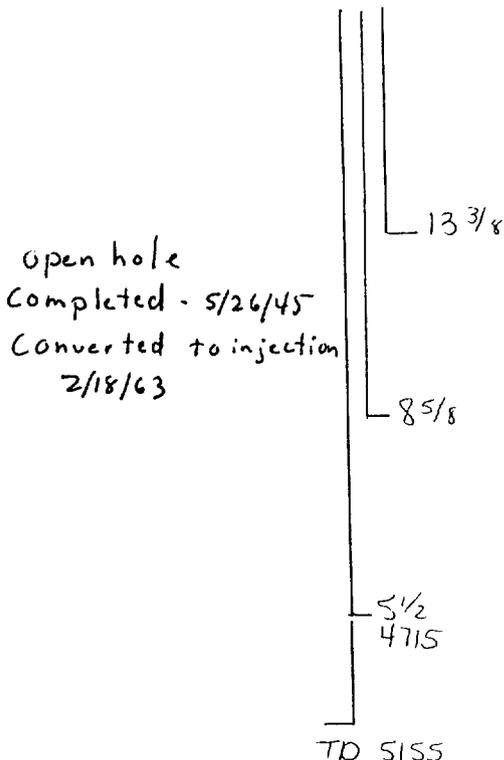
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
41	660 FNL & 1980 FEL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing
 Size: 13 3/8 " Cemented with 220 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 16

Intermediate Casing
 Size: 8 5/8 " Cemented with 150 SX
 TOC: 1505 feet determined by CALC 50%
 Hole Size: 11 1/2

Long String
 Size: 5 1/2 " Cemented with 200 SX
 TOC: 2869 feet determined by CALC 80%
 Hole Size: 7

Total Depth: 5155

Injection Interval
4760 feet to 5155 feet
 (perforated or open-hole indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

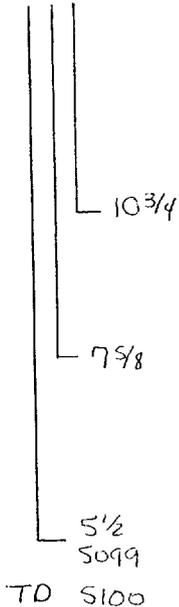
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
45	660 FNL & 1980 FEL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



cased hole
Completed - 1/10/45
converted to injection
2/18/63

Surface Casing

Size: 10 3/4 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 650 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 6 3/4

Total Depth: 5100

Injection Interval

4730 feet to 5060 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
packer at 4681' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

OPERATOR

LEASE

47

660 FWL & 660 FNL

9

17S

36E

WELL NO.

FOOTAGE LOCATION

SEC.

TOWNSHIP

RANGE

LEA COUNTY, NEW MEXICO

Tubular Data

Surface Casing

Size: 10 3/4 " Cemented with 210 SX

TOC: SURFACE feet determined by CALC

Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 600 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 6 3/4

Total Depth: 5100

Injection Interval

4690 feet to 5100 feet
(perforated or open-hole, indicate which)

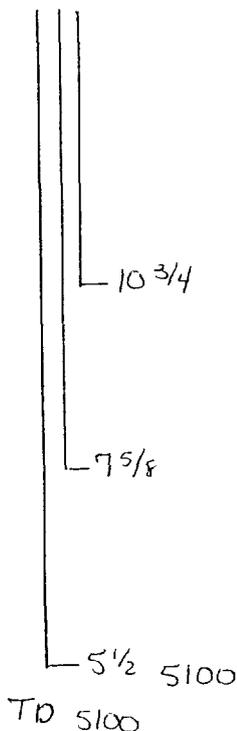
Tubing size 2 3/8" lined with IPC set in a
Baker packer at 4670' feet.
(brand & model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

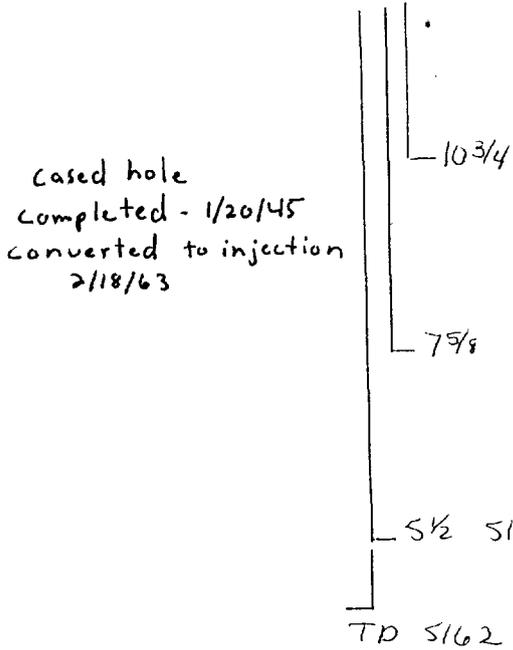
Cased hole
Completed 2/6/45
Converted to injection
2/18/63



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
49	660 FNL & 1980 FEL	9	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 160 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 550 SX
 TOC: CMT CIRC feet determined by CALC
 Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: CMT CIRC feet determined by CIRC
 Hole Size: 6 3/4

Total Depth: 5162

Injection Interval

4867 feet to 5141 feet
 (perforated) or open-hole, indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

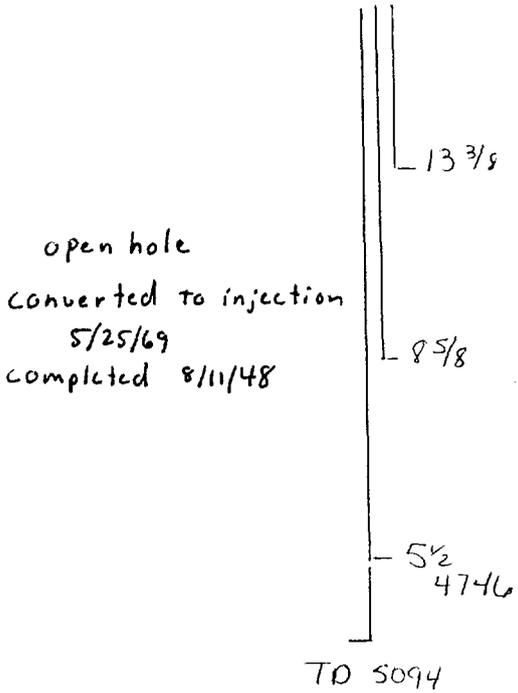
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
51	1980 FNL & 1896 FWL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 200 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 450 SX

TOC: 519 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 450 SX

TOC: 1520 feet determined by CALC 80%

Hole Size: 7 3/8

Total Depth: 5094

Injection Interval

4810 feet to 5094 feet
(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
(material)
packer at 4631' feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

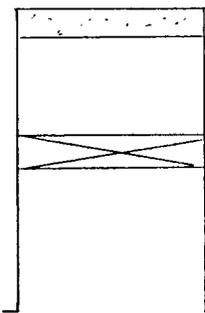
- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
52	1980 FNL & 1980 FEL	7	17S	36F
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing



30 SX cmt surf 100'

cmt retainer 229'

13 3/8 48" @ 249 250 SX

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CIRC

Hole size: 17 1/2

Intermediate Casing

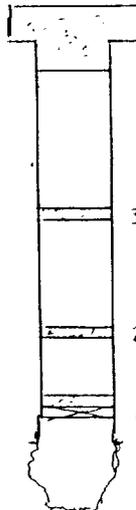
8 5/8" @ 1946 450 SX

Size: 8 5/8 " Cemented with 450 SX

TOC: SURFACE feet determined by CIRC

Hole Size: 11

completed - 6/15/48
P&A - 6/20/43



5 1/2 csg cut 2695 pulled, 65 SX cmt. plug 2514-2739

30 SX cmt plug 1946-2048

25 SX cmt plug 3783-4004

RBPW 40' cmt 4380' 5 1/2" 4737 450 SX

Long String

Size: 5 1/2 " Cemented with 450 SX

TOC: SURFACE feet determined by P&A

Hole Size: 7 7/8

Total Depth: 5110

Injection Interval

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

Tubing size 2" lined with _____ IPC _____ set in a
_____ (material)
_____ packer at 4265' feet.
(brand & model)

(or describe any other casing-tubing seal).

Other Data

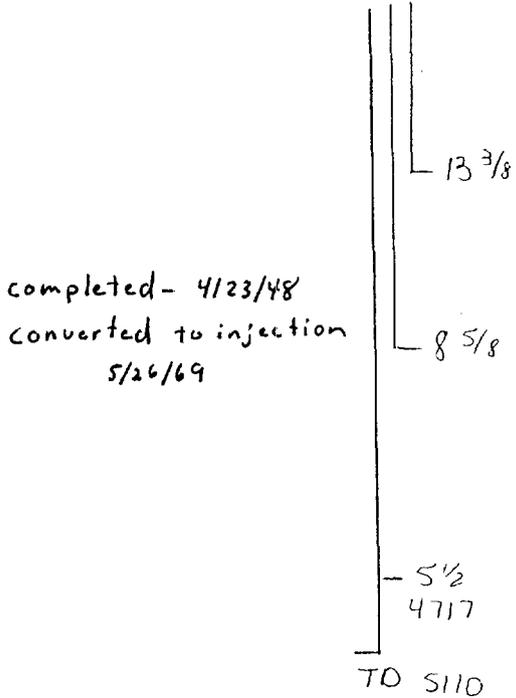
- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

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

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
53	660 FEL & 1980 FNL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 450 SX
 TOC: 505 feet determined by CALC 50%
 Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 450 SX
 TOC: 2265 feet determined by CALC 80%
 Hole Size: 7 7/8

Total Depth: 5110

Injection Interval

4750 feet to 5110 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with IPC set in a
 (material)
--- packer at 4300' feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
54	660 FWL & 1980 FNL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/4

Intermediate Casing

Size: 8 5/8 " Cemented with 400 SX

TOC: 678 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 450 SX

TOC: 2278 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5100

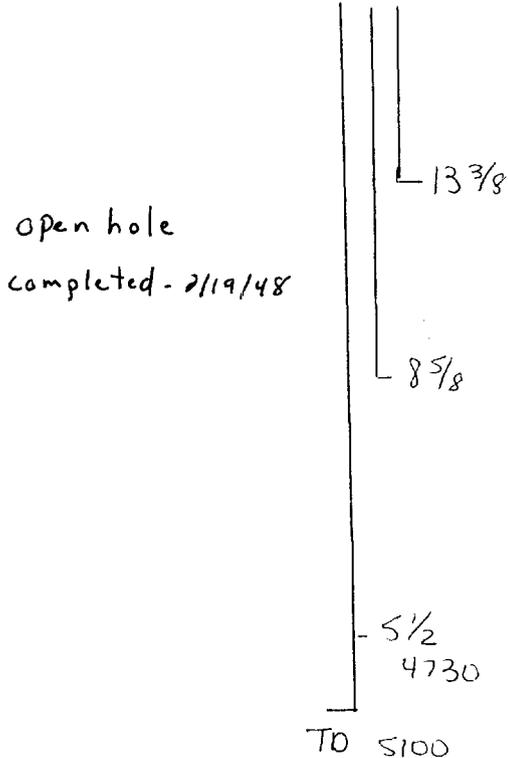
Injection Interval

4760 feet to 5100 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

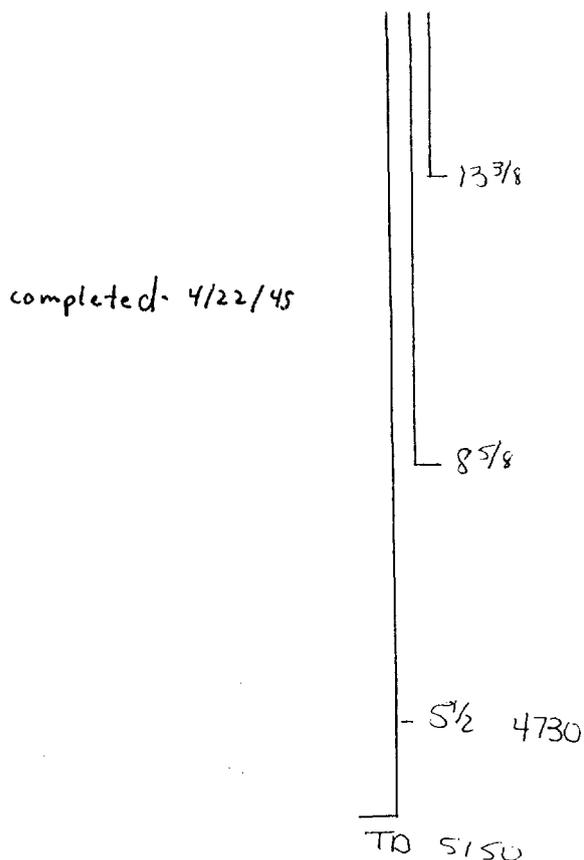
- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING



INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
55	1980 FNL & 1980 FWL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 16

Intermediate Casing

Size: 8 5/8 " Cemented with 200 SX

TOC: 1324 feet determined by CALC 50%

Hole Size: 11 1/2

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 2884 feet determined by CALC 80%

Hole Size: 7

Total Depth: 5150

Injection Interval

4775 feet to 5150 feet
(perforated or open-hole, indicate which)

Tubing size 2 7/8" lined with IPC set in a
(material)
--- packer at 4636' feet.
(brand & model)

(or describe any other casing-tubing seal).

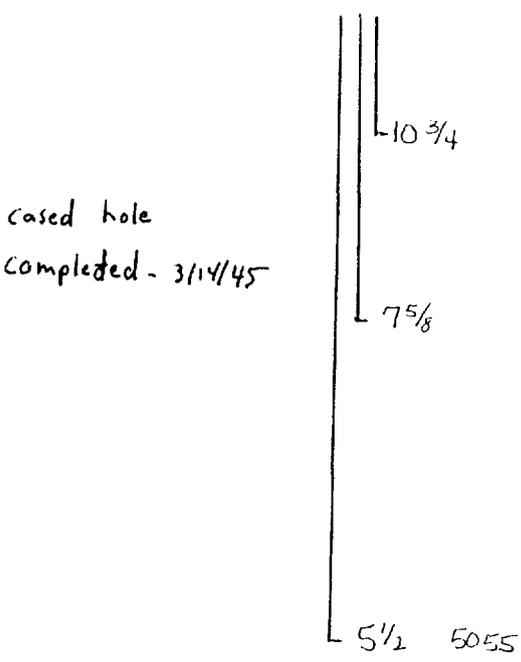
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
56	1980 FNL & 1980 FEL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 213 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 600 SX
 TOC: CMT CIRC feet determined by CALC
 Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 1363 feet determined by CALC 80%
 Hole Size: 6 3/4

Total Depth: 5055

Injection Interval

4720 feet to 5050 feet
 (perforated) or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
57	1650 FNL & 989 FEL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Surface Casing

Size: 7 5/8 " Cemented with _____ SX

TOC: CMT CIRC feet determined by CALC

Hole size: 11

Intermediate Casing

Size: -- " Cemented with -- SX

TOC: -- feet determined by --

Hole Size: --

Long String

Size: 4 1/2 " Cemented with 650 SX

TOC: 676 feet determined by CALC 80%

Hole Size: 6 3/4

Total Depth: 5120

Injection Interval

4682 feet to 5028 feet
(perforated) or open-hole, indicate which

Tubing size NONE lined with -- set in a
 _____ (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

Cased hole
 Completed - 12/21/66

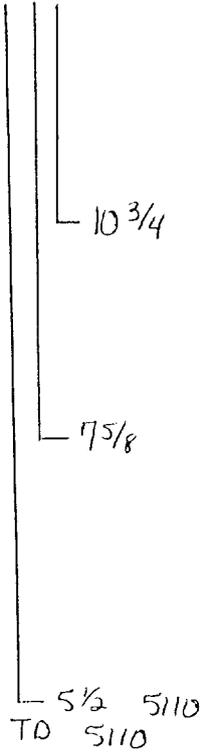


INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
59	1980 FSL & 660 FEL	7	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

Cased hole
Completed 12/13/48



Surface Casing

Size: 10 3/4 " Cemented with 275 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 15

Intermediate Casing

Size: 7 5/8 " Cemented with 650 SX
 TOC: CMT CIRC feet determined by CALC
 Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 650 SX
 TOC: CMT CIRC feet determined by CALC
 Hole Size: 6 3/4

Total Depth: 5110

Injection Interval

5020 feet to 5106 feet
 (perforated) or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

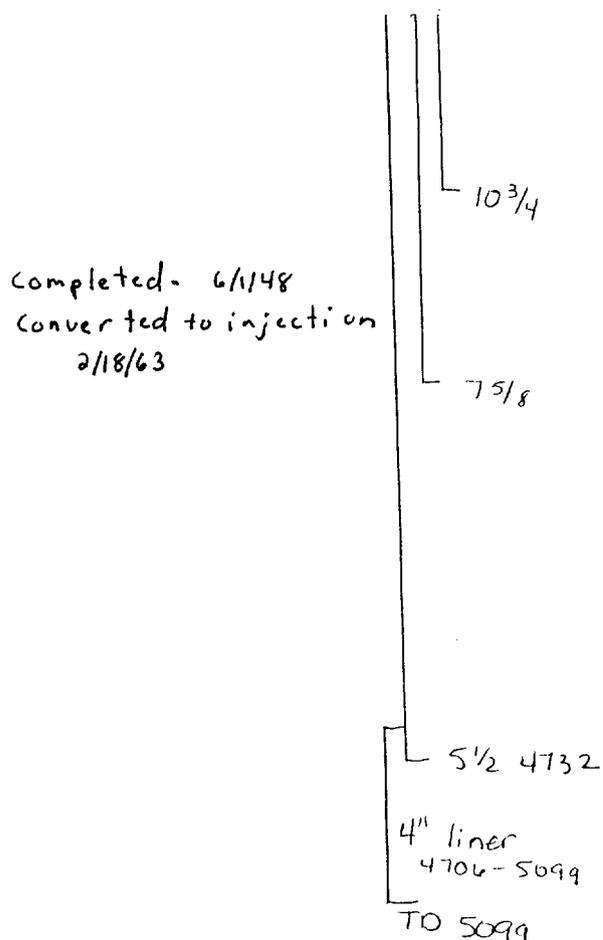
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
60	660 FWL & 1980 FSL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 10 3/4 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 15

Intermediate Casing

Size: 7 5/8 " Cemented with 960 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 1000 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 6 3/4

Total Depth: 5099

Injection Interval

5048 feet to 5098 feet
(perforated or open-hole, indicate which)

Tubing size 2" lined with -- ipc set in a
(material)
packer at -- 4660 feet.
(brand & model)

(or describe any other casing-tubing seal).

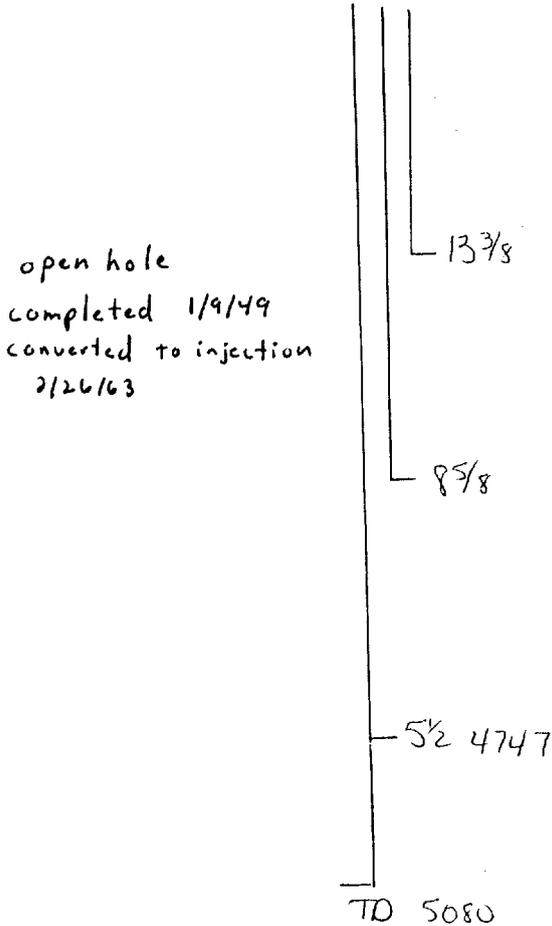
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
62	2970 FNL & 2310 FEL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 250 SX

TOC: SURFACE feet determined by CALC

Hole size: 17

Intermediate Casing

Size: 8 5/8 " Cemented with 150 SX

TOC: 1500 feet determined by CALC 50%

Hole Size: 11

Long String

Size: 5 1/2 " Cemented with 200 SX

TOC: 3585 feet determined by CALC 80%

Hole Size: 7 3/4

Total Depth: 5080

Injection Interval

4770 feet to 5080 feet
(perforated or open-hole indicate which)

Tubing size 2 3/8" lined with -- set in a
(material)
packer at -- 4640 feet.
(brand & model)
(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION

WEST LOVINGTON UNIT

OPERATOR

LEASE

63 PA

660 FNL & 560 FWL

8

17S

36E

WELL NO.

FOOTAGE LOCATION

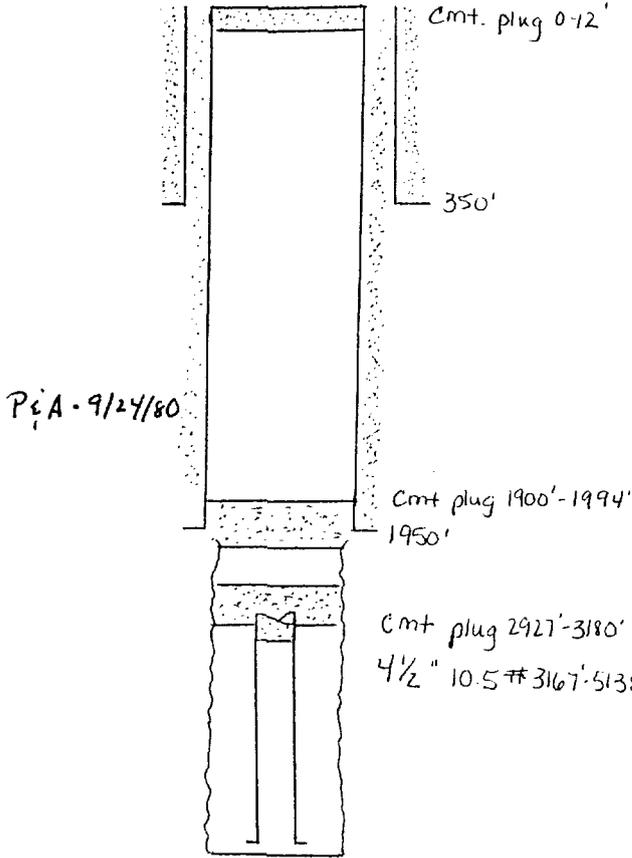
SEC.

TOWNSHIP

RANGE

LEA COUNTY, NEW MEXICO

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 450 SX

TOC: SURFACE feet determined by CIRC

Hole size: 17 1/2"

Intermediate Casing

Size: 8 5/8 " Cemented with 1300 SX

TOC: SURFACE feet determined by CIRC

Hole Size: 12 1/4

Long String

Size: 4 1/2 " Cemented with 560 SX

TOC: SURFACE feet determined by PA

Hole Size: 7 7/8"

Total Depth: 5150

Injection Interval

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

Tubing size _____ lined with _____ set in a
_____ (material)
_____ packer at _____ feet.
(brand & 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? _____
If no, for what purpose was the well originally drilled? _____
4. Has the well ever be 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

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
64	2080 FNL & 989 FWL	8	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data

date spudded - 6/2/83
date completed - 6/9/88

20"

13 3/8"

8 5/8" 5200

3.5 SX 6000-6100

40 SX 8250-8350

40 SX 9400-9500

TD 9500

Surface Casing

Size: 20 " Cemented with 700 SX

TOC: CMT CIRC feet determined by CALC

Hole size: 24

Intermediate Casing

Size: 13 3/8 " Cemented with 2200 SX

TOC: CMT CIRC feet determined by CALC

Hole Size: 17 1/4

Long String

Size: 8 5/8 " Cemented with 2050 SX

TOC: 1300 feet determined by Temp. Survey

Hole Size: 12 1/4

Total Depth: 9500

Injection Interval

4730 feet to 5027 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

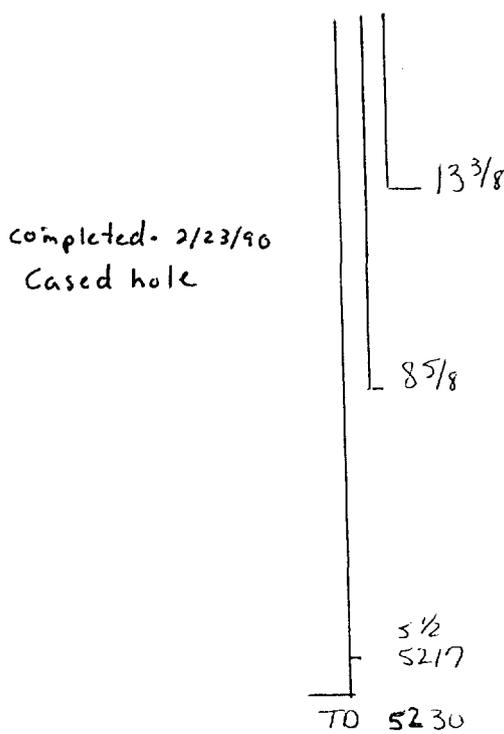
Other Data

1. Name of the injection formation SAN ANDRES DOLOMITE
2. Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
3. Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
4. Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
65	2610 FWL & 1330 FSL	4	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 450 SX

TOC: SURFACE feet determined by CALC

Hole size: 17 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 375 SX

TOC: 1010 feet determined by CALC 50%

Hole Size: 12 1/2

Long String

Size: 5 1/2 " Cemented with 770 SX

TOC: 1022 feet determined by CALC 80%

Hole Size: 7 7/8

Total Depth: 5230

Injection Interval

4706 feet to 5110 feet
(perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
(material)
NONE packer at -- feet.
(brand & model)
(or describe any other casing-tubing seal).

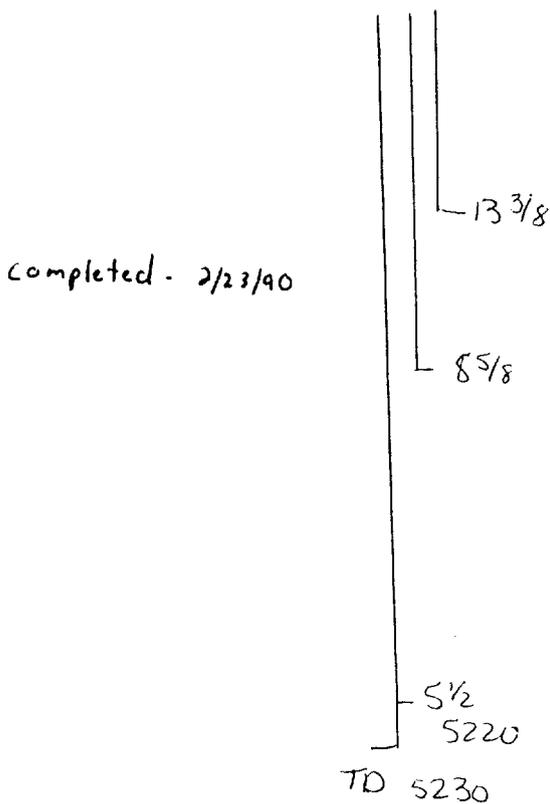
Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

GREENHILL PETROLEUM CORPORATION		WEST LOVINGTON UNIT		
OPERATOR		LEASE		
66	135 FSL & 1300 FEL	5	17S	36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE
LEA COUNTY, NEW MEXICO				

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 450 SX
 TOC: SURFACE feet determined by CALC
 Hole size: 17 1/2

Intermediate Casing

Size: 8 5/8 " Cemented with 380 SX
 TOC: 937 feet determined by CALC 50%
 Hole Size: 12 1/4

Long String

Size: 5 1/2 " Cemented with 1275 SX
 TOC: CMT CIRC feet determined by CALC
 Hole Size: 7 7/8

Total Depth: 5230

Injection Interval

4709 feet to 5062 feet
 (perforated or open-hole, indicate which)

Tubing size NONE lined with -- set in a
 (material)
NONE packer at -- feet.
 (brand & model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES DOLOMITE
- Name of Field or Pool (If applicable) LOVINGTON (SAN ANDRES) WEST
- Is this a new well drilled for injection? NO
 If no, for what purpose was the well originally drilled? PRODUCTION
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
NO
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
GRAYBURG - OVERLYING

INJECTION WELL DATA SHEET

Humble Oil & Refining Company		N. M. State "R"		
OPERATOR		LEASE		
#1	600 FNL & 660 FEL	9	T17S	R36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size: 10 3/4 " Cemented with 210 SX
 TOC: Surface feet determined by calc
 Hole size: 13 3/4

Intermediate Casing

Size: 7 5/8 " Cemented with 600 SX
 TOC: circulated feet determined by calc
 Hole Size: 9 7/8

Long String

Size: 5 1/2 " Cemented with 400 SX
 TOC: 588'
circulated feet determined by calc 80%
 Hole Size: 6 3/4
 Total Depth: 5115

Injection Interval

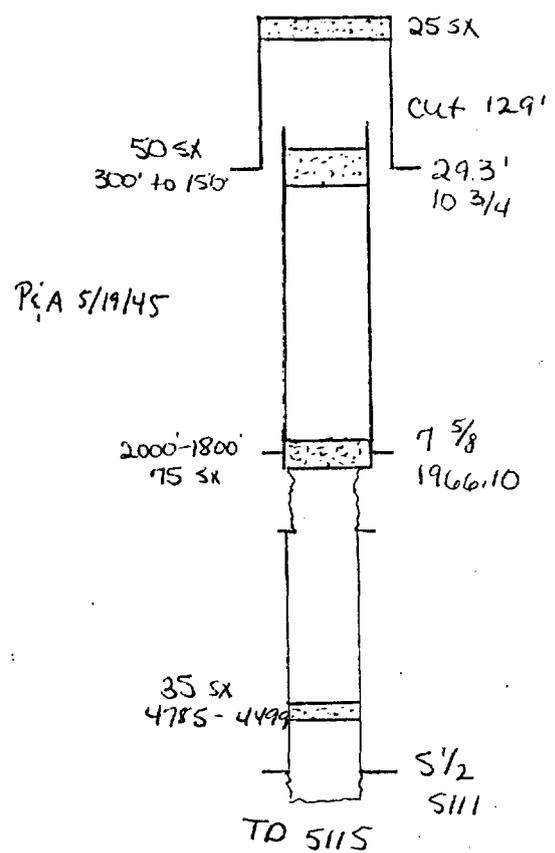
_____ feet to _____ feet
 (perforated or open-hole, indicate which)

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

Other Data

- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
 If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

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



INJECTION WELL DATA SHEET

Cities Service Oil Company		State "AU"		
OPERATOR		LEASE		
#1	660 FNL & 660 FWL	10	T17S	R36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size: 13 3/8 " Cemented with 300 SX

TOC: Surface feet determined by calc

Hole size: 17 1/4

Intermediate Casing

Size: _____ " Cemented with _____ SX

TOC: _____ feet determined by _____

Hole Size: _____

Long String

Size: 8 5/8 " Cemented with 2150 SX

TOC: circulated feet determined by calc

Hole Size: 11 1/4

Total Depth: 8641

Injection Interval

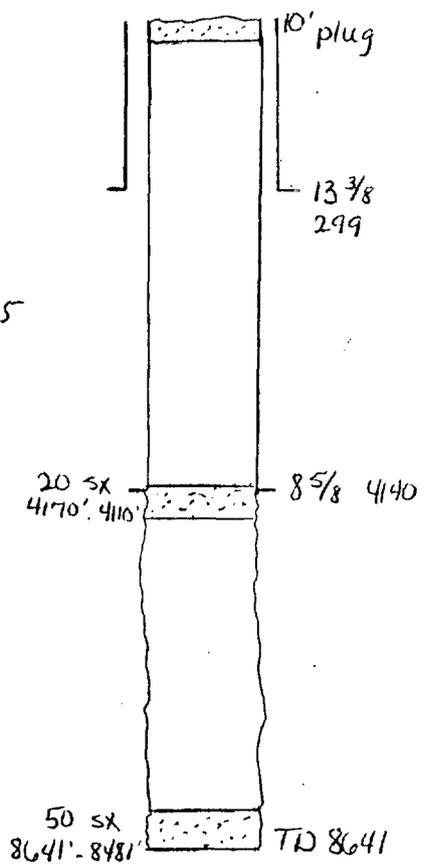
_____ feet to _____ feet
(perforated or open-hole, indicate which)

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

Other Data

- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

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

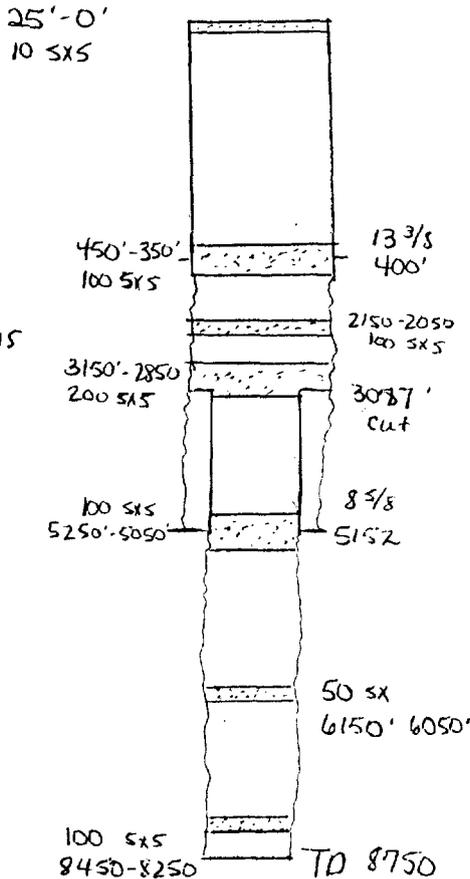


P&A 11/10/55

INJECTION WELL DATA SHEET

David Fasken OPERATOR	Exxon State LEASE			
#1 WELL NO.	1958 FNL & 330 FEL FOOTAGE LOCATION	4 SEC.	T17S TOWNSHIP	R36E RANGE

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with 400 SX
 TOC: Surface feet determined by calc
 Hole size: 17 1/2

Intermediate Casing

Size: _____ " Cemented with _____ SX
 TOC: circulated feet determined by _____
 Hole Size: _____

Long String

Size: 8 5/8 " Cemented with 750 SX
 TOC: 3436 feet determined by calc 80%
 Hole Size: 12 1/4
 Total Depth: 8750'

Injection Interval

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

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

Other Data

- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
 If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

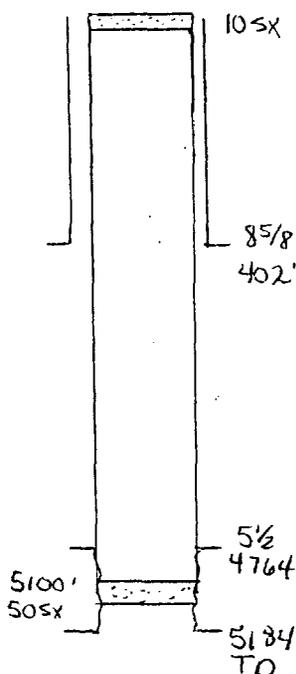
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

INJECTION WELL DATA SHEET

Pan American Petroleum Corporation		State R		
OPERATOR		LEASE		
#2	660 FSL & 660 FWL	6	T17S	R36E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data

PcA 12/18/70



Surface Casing

Size: 8 5/8 " Cemented with 300 SX

TOC: Surface feet determined by calc

Hole size: 12 1/4

Intermediate Casing

Size: _____ " Cemented with _____ SX

TOC: _____ feet determined by _____

Hole Size: _____

Long String

Size: 5 1/2 " Cemented with 500 SX

TOC: 2040' feet determined by calc 2070

Hole Size: 7 7/8

Total Depth: 5184

Injection Interval

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

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

_____ packer at _____ feet.

(brand & model)

(or describe any other casing-tubing seal).

Other Data

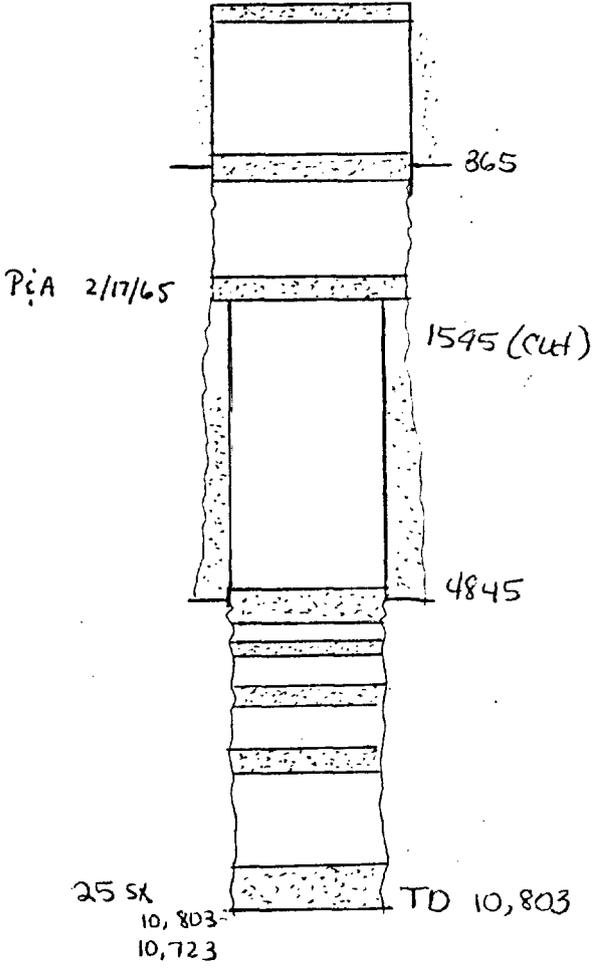
- Name of the injection formation _____
- Name of Field or Pool (if applicable) _____
- Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

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

INJECTION WELL DATA SHEET

Carper Drilling Company		State "AJ"		
OPERATOR		LEASE		
#1	660 FNL & 660 FEL	12	T17S	R35E
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data



Surface Casing

Size: 13 3/8 " Cemented with unk SX
 TOC: unk feet determined by _____
 Hole size: unk

Intermediate Casing

Size: 8 5/8 " Cemented with unk SX
 TOC: unk feet determined by _____
 Hole Size: unk

Long String

Size: _____ " Cemented with _____ SX
 TOC: _____ feet determined by _____
 Hole Size: _____
 Total Depth: 10803

Injection Interval

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

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

Other Data

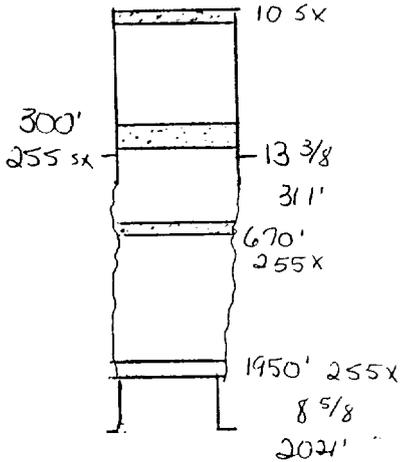
- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
 If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

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

INJECTION WELL DATA SHEET

FRED TURNER JR.		GRAHAM		
OPERATOR		LEASE		
1	1980' FNL & 4620' FEL	3	T17S-R36E	
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data



Surface Casing

Size: 13-3/8 " Cemented with 175 SX

TOC: Surface feet determined by Calc

Hole size: 17-1/4

Intermediate Casing

Size: 8-5/8 " Cemented with 200 SX

TOC: 1194 feet determined by Calc. 50%

Hole Size: 12-1/2

Long String

Size: 5-1/2 " Cemented with 400 SX

TOC: 2546 feet determined by Calc. 80%

Hole Size: 7-7/8

Total Depth: 5057'

Injection Interval

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

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

Other Data

- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

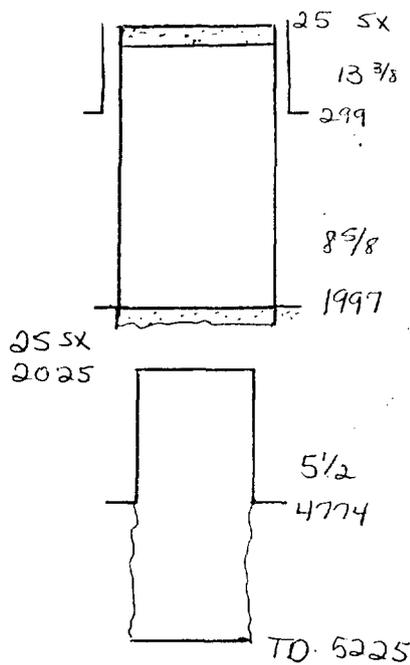
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

3480' cut
4650
255X
4725
P&A
7/13/58
Completed
7/10/45
open hole
TD 5075

INJECTION WELL DATA SHEET

STANOLIND OIL & GAS		STATE "V"		
OPERATOR		LEASE		
1	1980' FNL & 660' FEL	12	T17S-R35E	
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data



Surface Casing

Size: 13-3/8 " Cemented with 300 SX

TOC: Surface feet determined by Calc.

Hole size: 17-1/2

Intermediate Casing

Size: 8-5/8 " Cemented with 1300 SX

TOC: Circulated feet determined by Calc.

Hole Size: 12-1/4

Long String

Size: 5-1/2 " Cemented with 520 SX

TOC: 1046 feet determined by 80% Calc.

Hole Size: 7-3/8

Total Depth: 5225'

Injection Interval

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

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

Other Data

- Name of the injection formation _____
- Name of Field or Pool (If applicable) _____
- Is this a new well drilled for injection? _____
If no, for what purpose was the well originally drilled? _____
- Has the well ever be perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

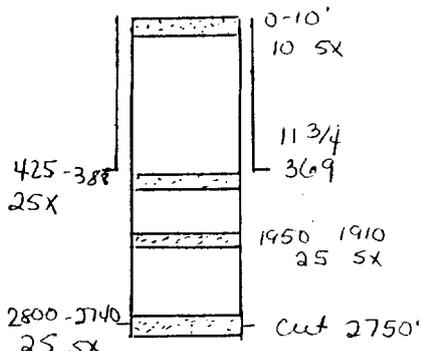
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

PC A 12/21/52
Completed 10/31/49
open hole

INJECTION WELL DATA SHEET

HUMBLE OIL & REFINING COMPANY		NEW MEXICO "P" STATE		
OPERATOR		LEASE		
5	2080' FNL & 660' FWL	9	T17S-R36E	
WELL NO.	FOOTAGE LOCATION	SEC.	TOWNSHIP	RANGE

Tubular Data



Surface Casing

Size: 11-3/4 " Cemented with 375 SX

TOC: Surface feet determined by Calc.

Hole size: 15

Intermediate Casing

Size: _____ " Cemented with _____ SX

TOC: _____ feet determined by _____

Hole Size: _____

Long String

Size: 8-5/8 " Cemented with 450 SX

TOC: 3527' feet determined by 80% calc

Hole Size: 11

Total Depth: 8700'

Injection Interval

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

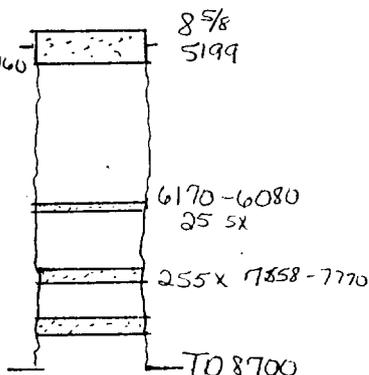
Tubing size _____ lined with _____ set in a _____ (material) packer at _____ feet.
(brand & model)
(or describe any other casing-tubing seal).

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? _____
If no, for what purpose was the well originally drilled? _____
4. Has the well ever be 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.

date completed
4/16/68
4/16/68 P&A



VII

1. The proposed average and maximum daily rate and volume to be injected are 2000 PSI and 1500 BWPD.
2. The system will be a closed system.

4. The sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water is attached hereto as Exhibit "A".

"A"

WATER ANALYSIS REPORT

K-58T175R36E

Company : GREENHILL PETROLEUM
Address : HOBBS, NM
Lease : WEST LOVINGTON UNIT
Well : SOUTHWEST WINDMILL
Sample Pt. : WINDMILL

Date : 7-17-90
Date Sampled : 7-17-90
Analysis No. : 2

Table with 5 columns: Item Number, Description, Unit 1 (mg/L), Unit 2, and Unit 3 (* meq/L). Rows include pH, H2S, Specific Gravity, Total Dissolved Solids, Suspended Solids, Dissolved Oxygen, Dissolved CO2, Oil In Water, Phenolphthalein Alkalinity, Methyl Orange Alkalinity, Bicarbonate, Chloride, Sulfate, Calcium, Magnesium, Sodium (calculated), Iron, Barium, Strontium, and Total Hardness.

PROBABLE MINERAL COMPOSITION

Table showing mineral composition with columns for *milli equivalents per Liter, Compound, Equiv wt X meq/L, and mg/L. Includes a diagram for ion relationships and a list of Saturation Values Dist. Water 20 C for CaCO3, CaSO4 * 2H2O, and BaSO4.

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
R. MATTHEWS

"A"

E- 54 T175R36E

WATER ANALYSIS REPORT

Company : GREENHILL PETROLEUM
 Address : HOBBS, NM
 Lease : WEST LOVINGTON UNIT
 Well : NORTH WINDMILL
 Sample Pt. : WINDMILL

Date : 7-17-90
 Date Sampled : 7-17-90
 Analysis No. : 1

ANALYSIS		mg/L	* meq/L	
-----		----	-----	
1.	pH	7.6		
2.	H2S	NEG.		
3.	Specific Gravity	1.001		
4.	Total Dissolved Solids	724.6		
5.	Suspended Solids			
6.	Dissolved Oxygen			
7.	Dissolved CO2			
8.	Oil In Water			
9.	Phenolphthalein Alkalinity (CaCO3)			
10.	Methyl Orange Alkalinity (CaCO3)			
11.	Bicarbonate	HCO3 2.0	HCO3	0.0
12.	Chloride	Cl 350.0	Cl	9.9
13.	Sulfate	SO4 135.0	SO4	2.8
14.	Calcium	Ca 190.0	Ca	9.5
15.	Magnesium	Mg 30.5	Mg	2.5
16.	Sodium (calculated)	Na 16.7	Na	0.7
17.	Iron	Fe 0.4		
18.	Barium	Ba 0.0		
19.	Strontium	Sr 0.0		
20.	Total Hardness (CaCO3)	600.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter			Compound	Equiv wt X meq/L	=	mg/L
-----+		+-----+	-----	-----	-----	-----
9	*Ca <-----	*HCO3 0	Ca (HCO3)2	81.0	0.0	3
	/----->		CaSO4	68.1	2.8	191
3	*Mg ----->	*SO4 3	CaCl2	55.5	6.6	368
	<-----/		Mg (HCO3)2	73.2		
1	*Na ----->	*Cl 10	MgSO4	60.2		
			MgCl2	47.6	2.5	119
Saturation Values Dist. Water 20 C			NaHCO3	84.0		
	CaCO3	13 mg/L	Na2SO4	71.0		
	CaSO4 * 2H2O	2090 mg/L	NaCl	58.4	0.7	43
	BaSO4	2.4 mg/L				

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
 R. MATTHEWS

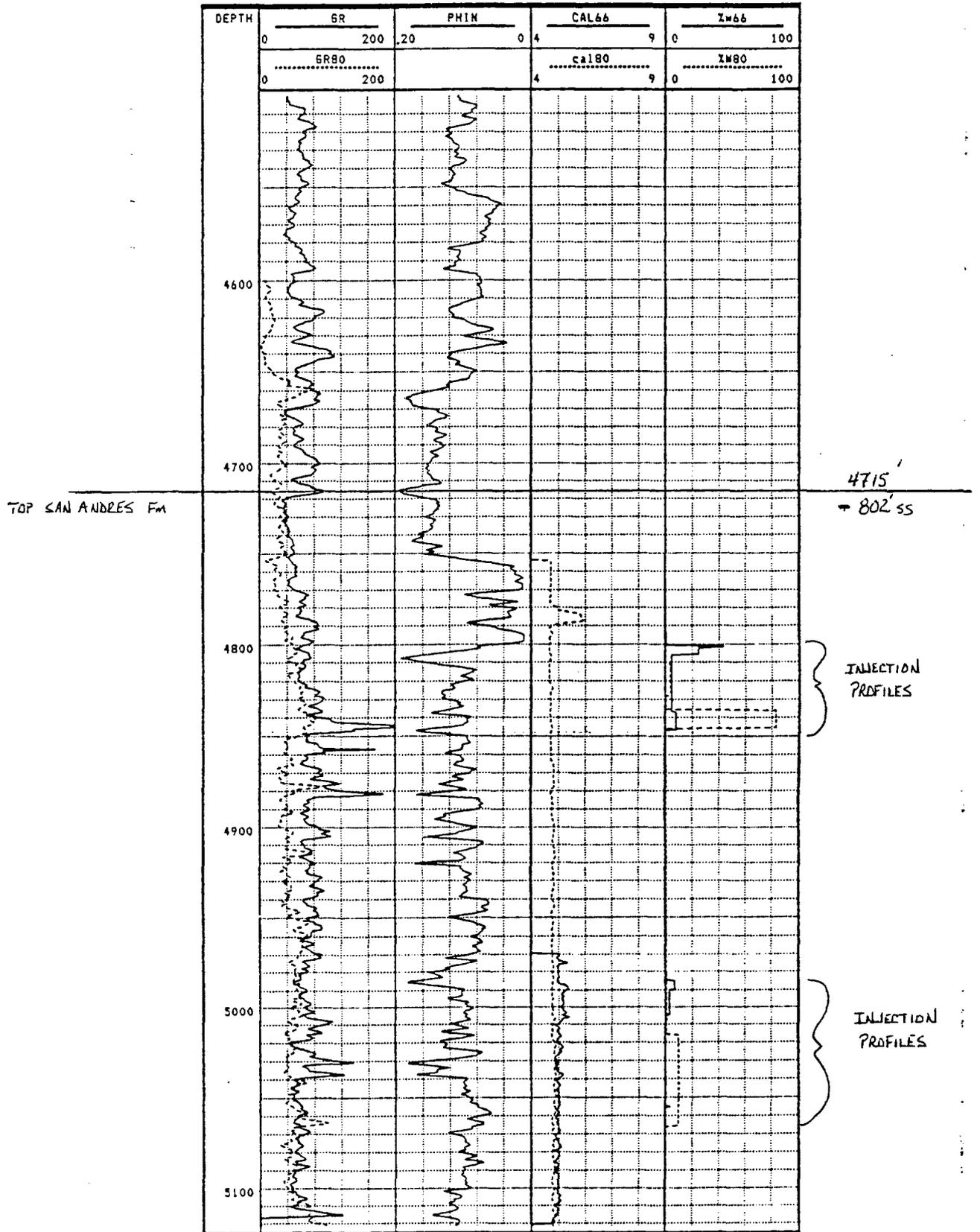
VIII Geologic Data

The zone of interest for this application to inject is the San Andres Formation. In the area of the West Lovington San Andres Field, the San Andres formation is approximately 1350' of dolomite; however, only the upper 400' - 500' is productive. The top of the San Andres formation occurs between 4650' and 5160' (log depth) in the West Lovington San Andres Field. Attached is a type log from the West Lovington San Andres Field. The well log (WLU#18) is an injection well and shows two main zones within the field unit where water has been injected.

The only known underground source of drinking water in the West Lovington Field area is the Ogalalla Formation. The approximate base of the formation is 200'. No source is known to be immediately underlying the proposed injection interval.

VIII

CYPRESS PETROLEUM CONSULTANTS	
WELL NAME	- TEXACO INC. (UNIT 18)
LOCATION	- 660 FNL 660 FEL 5-17S-36E WLU
WELL DATA	- DF 3913 TD 5150.5-172 4746
LOGS	- WORTH GRAN (11-15-62)
LOG PARAMETERS-	
DATA FILE NAME: wlu18.1g1	DATE OF PLOT: 3/23/1980



PROPOSED STIMULATION PROGRAM
FOR CONVERSIONS FROM PRODUCERS TO INJECTION WELLS

WEST LOVINGTON UNIT
LEA COUNTY, NEW MEXICO

1. MIRU pulling unit w/reverse unit. Check and report press. on all csg. strings. Inspect wellhead connections for condition and press. rating. Ensure all csg. valves are at least 2000 psig W.P. Rig up & test BOP.
2. Pull and lay down IPC tbg. string (see note). PU 4 3/4" bit w/csg. scraper on 2 3/8" work string and TIH. [Rotate scraper thru interval of 4050' to 4675'. Do not take scraper below 4675'.] POOH w/tools. Lay down scraper. TIH w/bit on 2 3/8" work string. Clean out from below packer (possibly 4160') to TD @ 5155' w/clean water (fresh or brine). POOH w/tools.
3. PU 5 1/2" pkr on tbg. and TIH. Set pkr. at ±4650'. Open pkr. bypass and spot 2-5 tons of CO2 to 100 ft. above the pkr. Close bypass and displace CO2 into formation under pressure with fresh water. Do not overdisplace. Shut-in overnight.
4. Open well and flowback to recover load. POOH w/tbg. & pkr.
5. Pick up BJ Titan PFT tool and TIH to 5150'±.
6. Pump in 2000 gallons of clean water (fresh or brine) through PFT in circulation mode while moving across interval 5150' to 4780'.

Treat the following intervals:

A. 5150-5100	E 8-10	E. 4850-40	C-7
B. 5070-5030	E 1-4	F. 4820-4780	B-3 to C-2
C. 4990-4970	D 7-9		

NOTE: EXCLUDE 4715-4780

7. Pump 3200 gal of 15% NEFE HCL treated with Iron and Sulfur control agents (to prevent reprecipitation of FeS) through the PFT in injection mode utilizing approximately 20 gal/ft in each interval specified above.
8. Pull up to 4700' - flush with 20 Bbls clean water. SI for 1 hr., then flowback to recover load. POH w/2 3/8" tubing & PFT, laying down tubing. Lay down PFT tools. Release B.J.
9. PU Inj string w/packer. Rerun and try to set packer at 4650'± (records

show packer at 4160'±.

10. Circulate inhibited water into annulus. Set packer w/12M tension. Flange up.
11. Perform leakage test per NMOCD requirements. Release rig.
12. Install cartridge housing and filter.
13. R.T.I. Monitor and report pressures, rates, etc. and pressure on filter.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Don Teer

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

of _____

Two weeks.
Beginning with the issue dated

July 31, 1990
and ending with the issue dated

August 7, 1990

Don Teer

Business Manager

Sworn and subscribed to before

me this 15th day of

August, 1990

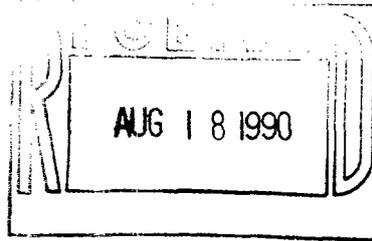
Rhonda Copeland
Notary Public.

My Commission expires _____

July 24, 1991

(Seal)

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



LEGAL NOTICE

July 31,

August 7, 1990

Greenhill Petroleum Corporation
12777 Jones Road
Suite 375
Houston, TX 77070
Phone (713)955 1146
Contact Mike Newport
Greenhill Petroleum Corporation

plans to convert the following producing oil wells to injection wells within the West Lovington Field Area. The purpose of the proposed injection wells is to increase reservoir pressure in order to improve the recovery of hydrocarbons. The location of the proposed injection wells are the following well numbers within Sections 4, 5, 7, 8, 9, T17S R36E, Lea Co. NM.

Well Nos. 11, 12, 13, 19, 23, 25, 35, 36, 37, 40, 42, 44, 46, 48, 50 and 61

The injection intervals are approximately between the depths of 4600' and 5200' in the San Andres formation. The maximum injection rates and pressures are 2000 PSI 1500 BWPD.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501 within 15 days.



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

CERTIFIED MAIL

Surface owner notification

July 23, 1990

U-BAR RANCH
P.O. Box 1471
Midland, TX 79702

Attn: Mr. Clarence Scharbauer III

RE: West Lovington Unit
Lea County, New Mexico

Dear Mr. Scharbauer:

Enclosed please find the copies of the applications for conversions of producers to injection wells within the West Lovington Unit area. Operators are required to furnish the copies of these applications to the surface owners. Listed below are the wells which we plan to convert on your surface acreage:

Well Numbers: 40, 42, 44 46, 48, 50 and 61.

Please call me at (713) 955-1146 in the event you have any questions.

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
Enclosures

WLU025



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

CERTIFIED MAIL

Surface owner notification

July 23, 1990

Ms. Eleanor Graham
P.O. Box 1117
Lovington, New Mexico 88260

RE: West Lovington Unit
Lea County, New Mexico

Dear Ms. Graham:

Enclosed please find the copies of the applications for conversions of producers to injection wells within the West Lovington Unit area on your surface acreage. Operators are required to furnish the copies of these applications to the surface owners. Listed below are the wells which we plan to convert to injection wells on your acreage:

Well Numbers: 11, 12, 13, 19, 23, 25, 35, 36 and 37.

Please call me at (713) 955-1146 in the event you have any questions.

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
Enclosures

WLU024



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certified Mail

July 30, 1990

Yates Energy Corporation
P. O. Box 2323
Sunset Centre, Suite 1010
Roswell, NM 88202-2323

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit.

Well Numbers: 11, 12, 25, 36, 37

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,

Michael J. Newport
Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certified Mail

July 30, 1990

Mobil Exploration & Producing
1250 Poydras Building
New Orleans, LA 70113

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit.

Well Number: 50

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certified Mail

July 30, 1990

Exxon Company U. S. A.
P. O. Box 1600
615 W. Missouri
Midland, TX 79702-1600

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit.

Well Numbers: 25, 13, 19, 40, 61, 35, 36, 37, 48, 46

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,


Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certificate No. 1

July 30, 1990

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit.

Well Numbers: 37, 25

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,


Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certified Mail

July 30, 1990

Texaco Inc.
P. O. Box 52332
Houston, TX 77052

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit.

Well Numbers: 12, 13, 50, 61, 46

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

Certified Mail

July 30, 1990

OXY U.S.A. Inc.
P. O. Box 27570
Houston, TX 77027

Re: West Lovington Unit
Lea County, New Mexico

Dear Sirs:

This letter is to hereby notify you that Greenhill Petroleum Corporation will be converting the following wells to injection within the West Lovington Unit

Well Numbers: 25, 37

We are required to notify offset operators within a one-half mile radius of these conversions.

Very truly yours,


Michael J. Newport
Landman

MJN:ntd
WLU033



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware U.S.A.

August 21, 1997

YATES ENERGY CORPORATION
P. O. Box 2323
Sunset Centre, suite 1010
Roswell, New Mexico 88202-1323

Re: West Lovington Unit
Lea County, New Mexico

Enclosed find the complete application package covering the conversion to injection wells in the West Lovington area. The following wells have been proposed to be converted:

Well Numbers: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40,
41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
Enclosures
WLU047



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

August 21, 1990

TEXACO, INC.
P. O. Box 52332
Houston, Texas 77052

Re: West Lovington Unit
Lea County, New Mexico

Enclosed find the complete application package covering the conversion to injection wells in the West Lovington Area. The following wells have been proposed to be converted:

Well Numbers: 11, 12, 13, 19, 23, 25, 35, 36, 37, 40,
42, 44, 46, 48, 50, 61

Very truly yours,

Michael J. Newport
Landman

MJN:ntd
Enclosures
WLU047



GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375
HOUSTON, TEXAS 77070
TELEPHONE (713) 955-1146
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

EXXON CO., U.S.A.
P. O. Box 1600
Midland, TX 79702-1600

Re: West Lovington Unit
Lea County, New Mexico

Enclosed find the complete application package covering the conversion to injection wells in the West Lovington Area. The following wells have been proposed to be converted:

Well Numbers: 11, 12, 13, 14, 15, 25, 35, 36, 37, 40,
42, 44, 46, 47, 50, 51

Very truly yours

Michael J. Newport
Landman

MJN:ntd
Enclosures
WLU047



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 HOBBS DISTRICT OFFICE

'90 AUG 10 AM 9 09

GARREY CARRUTHERS
 GOVERNOR

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

3 6 90

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

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

- #11-H 5-17-36
- #12-E 4-17-36
- #13-F 4-17-36
- #19-K 5-17-36
- #23-K 4-17-36
- #25-I 4-17-36
- #35-N 4-17-36
- #36-O 4-17-36
- #37-P 4-17-36
- #40-C 7-17-36

Gentlemen:

I have examined the application for the:

Greenhill Pet Co. West Louington Unit
 Operator Lease & Well No. Unit

- S-T-R
- #42-A 8-17-36
- #44-C 8-17-36
- #46-A 8-17-36
- #48-C 9-17-36
- #50-E 7-17-36
- #61-K 8-17-36

and my recommendations are as follows:

Oil - (Now 2 poorly plugged)
wells

Yours very truly,

Jerry Sexton
 Jerry Sexton
 Supervisor, District 1

/ed