



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

BRUCE KING  
GOVERNOR

July 19, 1993

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

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

RE: Proposed:

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

R- 9961

Gentlemen:

I have examined the application for the:

|                       |                  |      |          |
|-----------------------|------------------|------|----------|
| Yates Petroleum Corp. | Hoover ADR State | #2-0 | 1-17-33  |
| Operator              | Billy AES State  | #2-C | 12-17-33 |
|                       | Lease & Well No. | Unit | S-T-R    |

and my recommendations are as follows:

*needs hearing*

Yours very truly,

*Jerry Sexton*  
Jerry Sexton  
Supervisor, District 1

/ed

## APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☒ no
- II. Operator: Yates Petroleum Corporation  
Address: 105 South 4th Street Artesia, New Mexico 88210  
Contact party: Carolyn Bulovas Yates Phone: 505-748-1471
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no  
If yes, give the Division order number authorizing the project \_\_\_\_\_.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Carolyn Bulovas Yates Title Petroleum Engineer  
Signature: Carolyn Bulovas Yates Date: July 14, 1993
- \* 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. \_\_\_\_\_

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

## III. WELL DATA

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

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

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

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

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

## XIV. PROOF OF NOTICE

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

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

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

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

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

C-108  
Application for Authorization to Inject  
Yates Petroleum Corporation  
Lea County, New Mexico

**Billy "AES" State #2**  
**C 12-17S-33E**  
**530'FNL & 1750'FWL**

**Hoover "ADR" State #2**  
**O 1-17S-33E**  
**990'FSL & 2310'FEL**

- I. The purpose of this application is to request authorization to inject Queen produced water and Ogallala fresh water into the Queen formation for secondary recovery.
- II. Operator: Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Carolyn Bulovas Yates (505) 748-1471
- III. Well data: (See Attachment A)
- IV. This is not an expansion of an existing project.
- V. See maps, Attachment B.
- VI. A tabulation of the data on all wells within the area of review which penetrate the Queen formation can be found in Attachment C. Schematics of the three plugged wells within the area of review can be found in Attachment D.
- VII.
  1. Proposed average daily injection volume approximately 500 BWPD per injection well. Maximum daily injection volume approximately 1000 BWPD per injection well.
  2. This will be a closed system.
  3. Proposed average injection pressure: 750 psi  
Proposed maximum injection pressure: 950 psi
  4. Sources of injected water would be Queen produced water and Ogallala fresh water. Attachment E contains water analyses of a produced water sample (Sweet Thing "AEB"#1) and an Ogallala water sample (Williams Ranch overflow). Both show little to no scaling tendencies at 80°F. The produced water is high in chlorides and total dissolved solids. The fresh water will be mixed with the produced water at surface before injection. The compatibility study of a 50/50 mix of the produced water with fresh water is also found in Attachment E. This study shows no scaling tendencies at 80°F.
  5. Not applicable.

- VIII. 1. The proposed injection interval is the Queen formation at approximately 3762' to 3782'. These sands were deposited in a supratidal environment.
2. Fresh water in the Ogallala overlies the Queen to depths of approximately 450'.
- IX. The proposed injection interval will be stimulated with 1000 gallons of 7 1/2% NEFE acid.
- X. Logs were filed at the Oil Conservation Division when the wells were originally drilled.
- XI. The approximate location of the nearest fresh water well is in NW/4 of the SE/4 of Section 12-T17S-R33E. A water analysis of a sample from this well can be found in Attachment F.
- XII. Not applicable.
- XIII. Proof of Notice
1. Copies of certified letters sent to the surface owners and offset operators within the area of review are in Attachment G.
- XIV. Certification is signed.

Yates Petroleum Corporation  
Billy "AES" State #2  
C 12-17S-33E

Attachment A

III. Well Data

A. 1. LEASE NAME/LOCATION:

Billy "AES" State #2  
Unit C Sec. 12-T17S-R33E  
530' FNL & 1750' FWL

2. CASING STRINGS AND HOLE SIZE:

9 5/8" 36# 8rd J-55 ST&C set at 1534' with 450 sacks  
Pacesetter "C" Lite with 1/4# per sack celloseal, 5# per  
sack Gilsonite and 3% CaCl<sub>2</sub>, tailed in with 150 sacks  
Class "C" with 2% CaCl<sub>2</sub>. Circulated 50 sacks. Hole size  
12 1/4". 7" 23# 8rd K-55 LT&C set at 4800' with 750 sacks  
Class "C" with .5% CF-1 and 10% salt. TOC at 2900' as per  
CBL. Hole size 8 3/4".

3. TUBING:

Propose to use 2 7/8" 6.5# J-55 plastic coated tubing set  
at approximately 3716'.

4. PACKER:

Propose to use Guiberson Uni VI or Baker plastic coated or  
nickel plated packer set at approximately 3716'.

B. 1. Injection Formation: Queen  
Field: Sanmal Queen

2. Injection interval will be through perforations from  
3766' to 3782'.

3. Well was originally drilled as a wildcat to test  
the San Andres formation and intermediate zones.

4. Other perforations are:

4585'-88' and 4591'-95' San Andres Vacuum pay with a RBP  
set at 3796'.

5. Next higher (shallower) oil zone is the Seven Rivers.  
The next lower (deeper) oil zone is the Grayburg.

# YATES PETROLEUM CORPORATION

## BILLY "AES" STATE #2

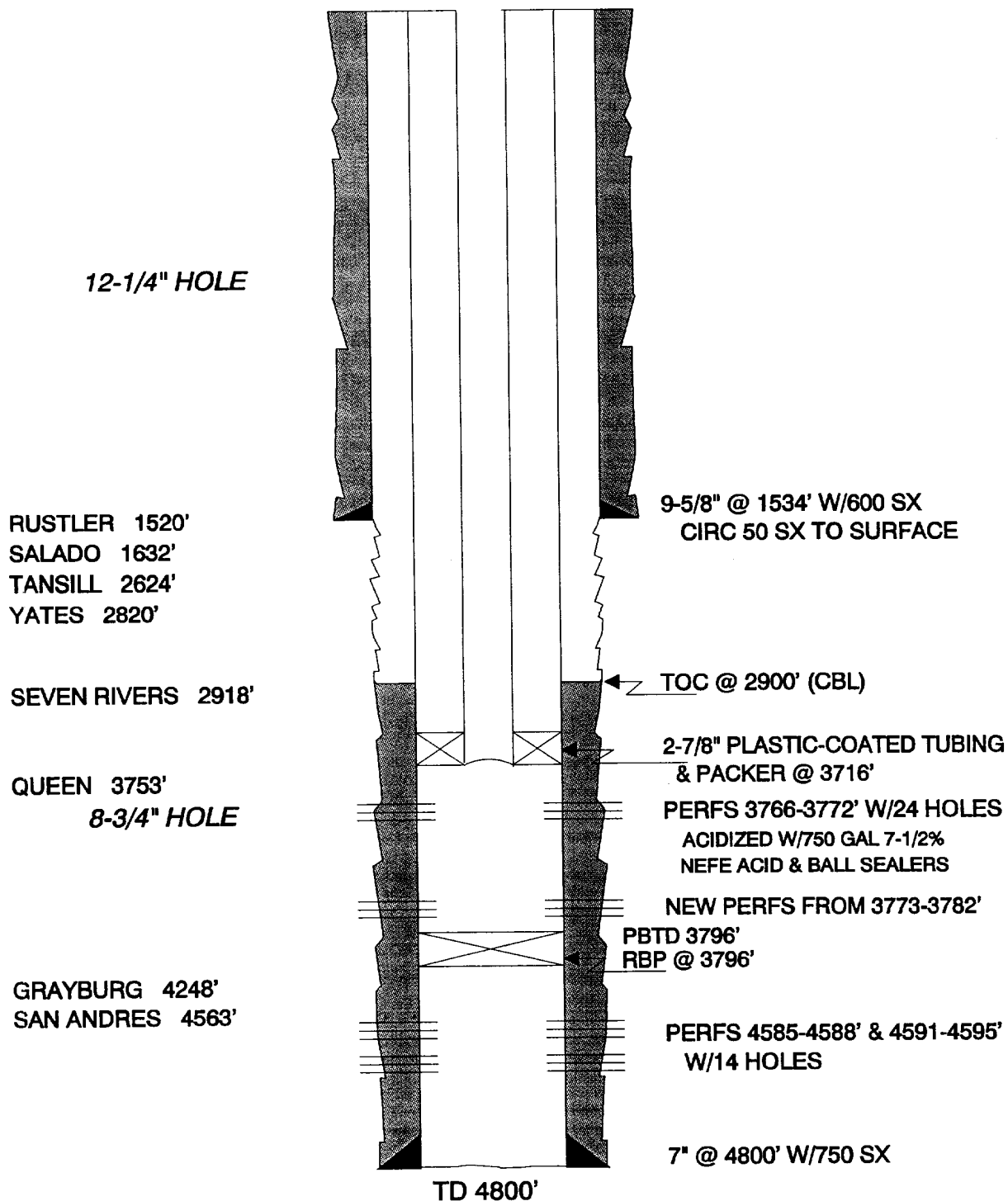
530'FNL & 1750'FWL

SEC. 12-T17S-R33E

QUEEN FORMATION

LEA COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL



Yates Petroleum Corporation  
Hoover "ADR" State #2  
O 1-17S-33E

Attachment A  
Page 3

III. Well Data

A. 1. LEASE NAME/LOCATION:

Hoover "ADR" State #2  
Unit O Sec 1-T17S-R33E  
990'FSL & 2310'FEL

2. CASING STRINGS AND HOLE SIZE:

8 5/8" 24# J-55 set at 1505' with 575 sacks Pacesetter Lite with 1/4# per sack celloseal and 2% CaCl<sub>2</sub>. Tailed in with 200 sacks Class "C" with 2% CaCl<sub>2</sub>. Circulated 10 sacks to pit. Hole size 12 1/4". 5 1/2" 15.5# J-55 set at 3900' with 300 sacks Class C with .5% CF-1. Top of cement at 2740' as per CBL. Hole size 7 7/8".

3. TUBING:

Propose to use 2 7/8" 6.5# J-55 plastic coated tubing set at approximately 3712'.

4. PACKER:

Propose to use Guiberson Uni VI or Baker plastic coated or nickel plated packer set at approximately 3712'.

B. 1. Injection Formation: Queen  
Field: Sanmal Queen

2. Injection interval will be through 2 sand jet holes at 3762' and perfs from 3763'-3778'.

3. Well was originally drilled to test the Queen formation and intermediate zones.

4. No other perforations in this well.

5. Next higher (shallower) oil zone is the Seven Rivers. The next lower (deeper) oil zone is the Grayburg.

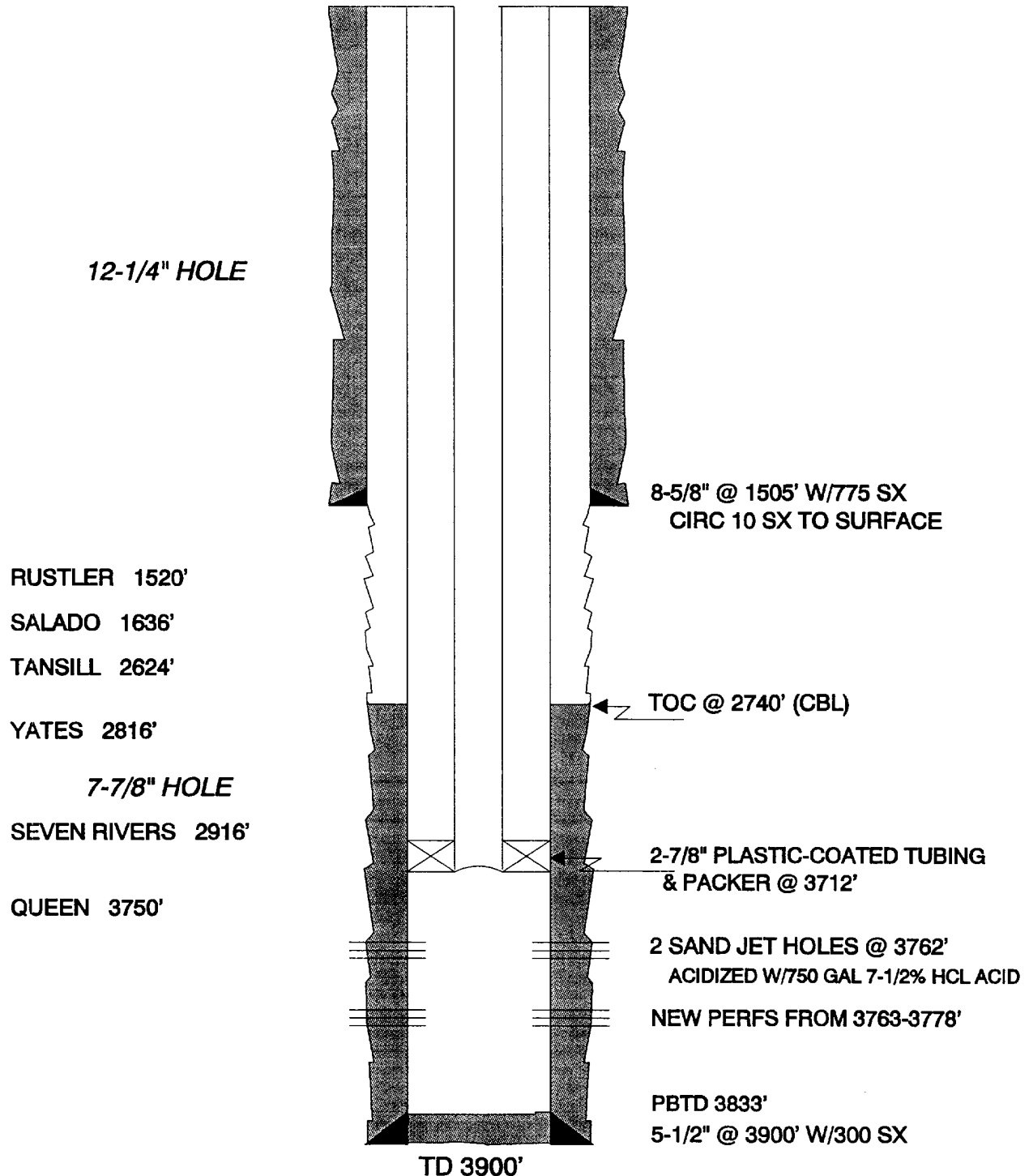
**YATES PETROLEUM CORPORATION****HOOVER "ADR" STATE #2**

990'FSL &amp; 2310'FEL

SEC. 1-T17S-R33E

QUEEN FORMATION

LEA COUNTY, NEW MEXICO

**DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL**



# Yates Petroleum Corporation

Hoover "ADR" State #2

Proposed Injection Well

Sec. 1-T17S-R33E  
990'FSL & 2310'FEL  
Lea County, NM

Attachment B

**Attachment C**  
**Hoover "ADR" State #2 & Billy "AES" State #2**  
**Tabulation of Data on Wells Within Area of Review**

| WELL<br>NAME                                                     | LOCATION    | OPERATOR                                                    | WELL<br>TYPE | SPUD<br>DATE       | COMPLETION<br>DATE   | TD<br>(FT)        | PRODUCTION PERFORATIONS |                        | COMPLETION INFORMATION                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------|-------------|-------------------------------------------------------------|--------------|--------------------|----------------------|-------------------|-------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                  |             |                                                             |              |                    |                      |                   | ZONE                    | (FT)                   |                                                                                                                                                                                                                                                                                                                                                                                    |
| L. C. Harris<br>State #1<br>formerly<br>Tex-Gulf State<br>"K" #1 | F 1-17S-33E | Wilbanks &<br>Rasmussen<br>formerly<br>Texas Gulf Prod. Co. | P & A        | 1/31/65<br>re-spud | 3/15/66              | 11,733            | Seaman                  | 11,634-11,653          | 13 3/8" @ 377' w/400 sx; 9 5/8" @ 4665' w/430 sx; 5 1/2" Liner 4538'-5290' w/200 sx; 2 7/8" tubing @ 11,733' w/400 sx. Acidized 11,634'-11,653' w/1500 gals acid then 10,000 gals acid.<br>Acidized w/1000 gal. Reacidized w/2500 gal; reacidized w/10,000 gal.                                                                                                                    |
| Hoover "ADR"<br>State #1                                         | I 1-17S-33E | Yates Pet. Corp.                                            | SWD          | 12/31/85           | 4/10/86<br>CTI=11/90 | 11,825<br>PB 4352 | Queen                   | 3767-3774              | 20" @ 38'; 13 3/8" @ 448' w/425 sx; 8 5/8" @ 4530' with 1725 sx; 2 7/8" tubing @ 3698'. Acidized 3767'-3774' w/2000 gals 7 1/2% acid + ball sealers. For CTI, acidized w/1500 gals 15% HCL and set 2 7/8" IPC tubing @ 3698' & Guiberson Uni VI packer @ 3700'.                                                                                                                    |
| Sweet Thing<br>"AEB" State #1                                    | J 1-17S-33E | Yates Pet. Corp.                                            | Oil          | 5/22/86            | 7/4/86               | 3,900<br>PB 3850  | Queen                   | 3744-3761              | 20" @ 40'; 8 5/8" @ 406' w/275 sx; 5 1/2" @ 3900' w/1030 sx; 2 7/8" tubing @ 3685'. Acidized 3744'-3761' w/4000 gals 7 1/2% acid; Frac w/10,000 gals gel KCL + 20,000 # sand.                                                                                                                                                                                                      |
| Hoover "ADR"<br>State #3                                         | K 1-17S-33E | Yates Pet. Corp.                                            | Oil          | 2/6/87             | 2/26/87              | 3900<br>PB 3840   | Queen                   | 3745-3762              | 8 5/8" @ 1515' w/775 sx; 5 1/2" @ 3900' w/325 sx; 2 7/8" tubing @ 3364'. Acidized 3745'-3762' w/2500 gals 7 1/2% HCL. Frac w/15,000 gals gel KCL + 26,000 # sand.                                                                                                                                                                                                                  |
| Hoover "ADR"<br>State #5                                         | L 1-17S-33E | Yates Pet. Corp.                                            | Oil          | 1/16/88            | 3/15/88              | 4750<br>PB 4692   | Queen                   | 3752-3764              | 8 5/8" @ 1520' with 775 sx; 5 1/2" @ 4750' w/700 sx; 2 7/8" tubing @ 3681'. Acidized 3752'-3764' w/1500 gals 7 1/2% acid. Frac w/60,000 gals gel KCL + 100,000 # sand.                                                                                                                                                                                                             |
| Hoover "ADR"<br>State #6                                         | M 1-17S-33E | Yates Pet. Corp.                                            | Oil          | 6/22/87            | 12/10/87             | 4750<br>PB 3950   | Queen                   | 3757-3767<br>3771-3775 | 8 5/8" @ 1535' w/775 sx; 5 1/2" @ 4750' w/515 sx; 2 7/8" @ 3667'. Acidized w/1500 gals 7 1/2% NEFE plus ball sealers. Frac 3757'-3775' w/40,000 gals gelled 2% KCL + 60,000# sand; Frac 3757'-3775' w/120,000 gals gel + 192,500# sand.<br>Perfed 4661'-65' and AT w/1000 gals 7 1/2% NEFE; Perfed 4596'-4600' and AT w/5000 gals gelled 2% KCL+ 10,000 gals 20% NEFE gelled acid; |

**Attachment C**  
**Hoover "ADR" State #2 & Billy "AES" State #2**  
**Tabulation of Data on Wells Within Area of Review**

| WELL NAME                                                    | LOCATION     | OPERATOR                                             | WELL TYPE          | SPUD DATE                     | COMPLETION DATE        | ID (FT)                                | PRODUCTION ZONE                              | PERFORATIONS (FT)                                    | COMPLETION INFORMATION                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|--------------|------------------------------------------------------|--------------------|-------------------------------|------------------------|----------------------------------------|----------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hoover "ADR" State #6<br>cont'd                              |              |                                                      |                    |                               |                        |                                        |                                              |                                                      | Acidized 4470'-74' w/1000 gals 7 1/2% NEFE. Acidized 4521'-26' w/1000 gals 7 1/2% NEFE; SF 4470'-4600' w/52,000 gals 40# gel + 90,000 # sand.                                                                                                                                                                                                                                                                  |
| Hoover "ADR" State #4                                        | N 1-17S-33E  | Yates Pet. Corp.                                     | Oil                | 2/16/87                       | 3/24/87                | 3900<br>PB 3853                        | Queen                                        | 3753-3763                                            | 8 5/8" @ 1537' w/775 sx; 5 1/2" @ 3900' w/225 sx; 2 7/8" tubing @ 3677'. Acidized 3753'-3763' w/2000 gals 7 1/2% NEFE plus ball sealers.                                                                                                                                                                                                                                                                       |
| Hoover "ADR" State #2                                        | O 1-17S-33E  | Yates Pet. Corp.                                     | Oil                | 1/8/87                        | 2/23/87                | 3900<br>PB 3833                        | Queen                                        | 3762<br>(2 JS holes)                                 | 8 5/8" @ 1505' w/775 sx; 5 1/2" @ 3900' w/300 sx; 2 7/8" tubing @ 3763'. Acidized 3762' w/750 gals 7 1/2% acid.                                                                                                                                                                                                                                                                                                |
| Tex -Gulf "AEN" State #1-Y                                   | P 2-17S-33E  | Yates Pet. Corp.                                     | Oil                | 4/9/87                        | 5/13/87                | 3900<br>PB 3820                        | Queen                                        | 3768-3773                                            | 8 5/8" @ 1547 w/700 sx; 5 1/2" @ 3900' w/250 sx; 2 7/8" tubing @ 3467'. Acidized 3768'-3773' w/2500 gals 7 1/2% NEFE plus ball sealers. Frac w/20,000 gals gel + 36,000# sand.                                                                                                                                                                                                                                 |
| Tex-Gulf "AEN" State #1<br>formerly<br>Tex-Gulf State "L" #1 | P 2-17S-33E  | Yates Pet. Corp.<br>formerly<br>Texas Gulf Prod. Co. | J & A<br><br>D & A | 3/31/87<br>re spud<br>1/10/58 | 4/5/87<br><br>3/24/58  | 5270<br><br>5270                       | ---<br><br>---                               | ---<br><br>---                                       | 13 3/8" @ 388' w/450 sx.                                                                                                                                                                                                                                                                                                                                                                                       |
| Petrus D State #5                                            | A 11-17S-33E | Mack Energy<br>formerly Marbob & Petrus Oil          | Oil                | 2/9/88                        | 2/26/88                | 3840<br>PB 3803                        | Queen                                        | 3767-3786                                            | 8 5/8" @ 1496' w/800 sx; 5 1/2" @ 3840' w/903 sx; 2 3/8" tubing @ 3682'. Acidized 3767'-3786' w/2000 gals 7 1/2% NEFE ; Frac w/24,650 gals gel + 45,000# sand + 15% CO2.                                                                                                                                                                                                                                       |
| Petrus D State #4<br><br>formerly<br>Petrus "11" State #1    | H 11-17S-33E | Mack Energy<br><br>formerly<br>Petrus Oil            | Oil<br><br>Oil     | 8/20/90<br>recomp.<br>1/17/88 | 8/30/90<br><br>2/14/88 | 4700<br>PB 4673<br><br>4700<br>PB 4550 | Queen<br>Grayburg<br>San Andres<br><br>Queen | 3760-4402<br>4428-4485<br>4584-4596<br><br>3760-3780 | 8 5/8" @ 1496' w/800 sx; 5 1/2" @ 4700' w/1215 sx.<br>2 3/8" tubing @ 4628'. Acidized 4400'-4485' w/1000 gals 15% NEFE. Frac 4584'-4596' w/20,000 gals gel 1% KCL + 18,000# sand.<br>Frac 4400'-4485' w/20,000 gals gel + 22,500# sand.<br>Perfed 4592'-4596' and acidized w/1000 gals 15% NEFE; set BP at 4550'. Acidized 3760'-3780' w/2000 gals 7 1/2% NEFE; Frac 3760'-3780' w/24,000 gals + 90,000# sand. |

**Attachment C**  
**Hoover "ADR" State #2 & Billy "AES" State #2**  
**Tabulation of Data on Wells Within Area of Review**

| WELL<br>NAME            | LOCATION     | OPERATOR                       | WELL<br>TYPE | SPUD<br>DATE | COMPLETION<br>DATE | ID<br>(FT)      | PRODUCTION PERFORATIONS |           | COMPLETION INFORMATION                                                                                                                                                                                                                                 |
|-------------------------|--------------|--------------------------------|--------------|--------------|--------------------|-----------------|-------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         |              |                                |              |              |                    |                 | ZONE                    | (FT)      |                                                                                                                                                                                                                                                        |
| Petrus D<br>State #8    | H 11-17S-33E | Mack Energy<br>formerly Marbob | T/A          | 10/27/90     | 12/16/90           | 6895<br>PB 4200 | Queen                   | 3775-3795 | 8 5/8" @ 1424' w/1000 sx; 5 1/2" @ 5114' w/2400 sx; 2 7/8" tubing @ 3844'. Acidized 3775'-3795' w/500 gals 15% NEFE. Frac w/20,000 gals gel + 24,000# sand. Perfed 4340'-4561' + 4674'-4889' and acidized all with 3500 gals 15% NEFE; set BP @ 4200'. |
| Billy "AES"<br>State #2 | C 12-17S-33E | Yates Pet. Corp.               | Oil<br>S/I   | 8/14/87      | 10/7/87            | 4800<br>PB 3796 | Queen                   | 3766-3772 | 9 5/8" @ 1534' w/600 sx; 7" @ 4800' w/750 sx; 2 3/8" tubing @ 3800'. Acidized 3766'-3772' with 750 gal 7 1/2% NEFE.                                                                                                                                    |
| Billy "AES"<br>State #1 | D 12-17S-33E | Yates Pet. Corp.               | Oil          | 7/12/87      | 8/15/87            | 4800<br>PB 4750 | Queen                   | 3767-3784 | 8 5/8" @ 1550' w/725 sx; 5 1/2" @ 4800' w/515 sx; 2 7/8" tubing @ 3721'. Acidized 3767'-3784' with 1500 gals 7 1/2% acid. Frac w/30,000 gals gel KCL + 50,000# sand.                                                                                   |
| State B #2              | M 6-17S-34E  | H. L. Brown, Jr.               | P & A        | 9/20/73      | 12/27/73           | 11,120          | ---                     | ---       | 11 3/4" @ 387' w/400 sx; 8 5/8" @ 4700' w/250 sx;                                                                                                                                                                                                      |

**WILBANKS & RASMUSSEN**

L. C. HARRIS STATE #1

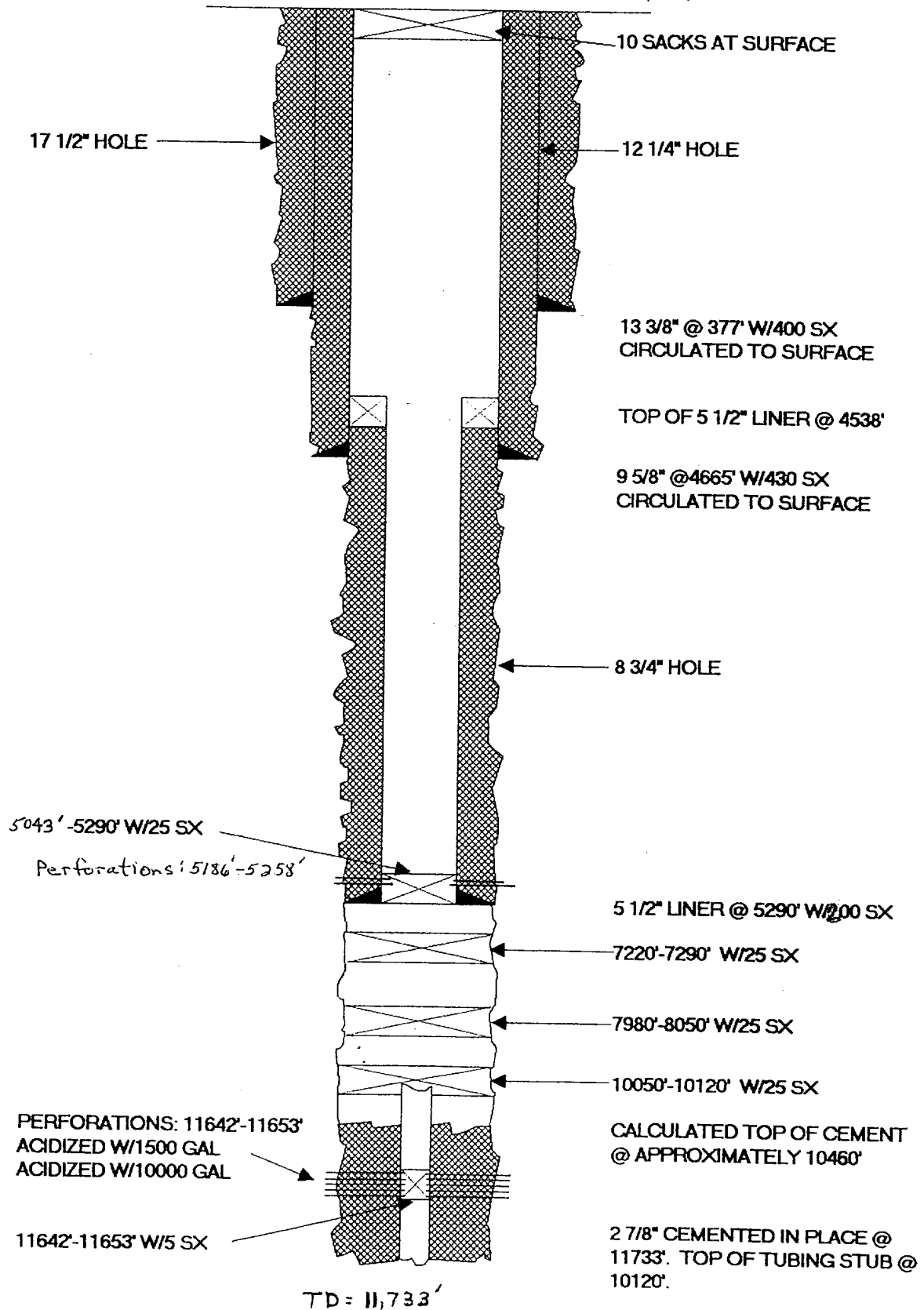
SEC. 1 - 17S - 33E

UNIT F

1980' FNL &amp; 1980' FWL

RE - SPUD : 01 - 31 - 65 COMPL. : 03 - 15 - 66

PLUGGED &amp; ABANDONED 6-21-66



# YATES PETROLEUM CORPORATION

## TEX-GULF "AEN" STATE #1

660'FSL & 660'FEL

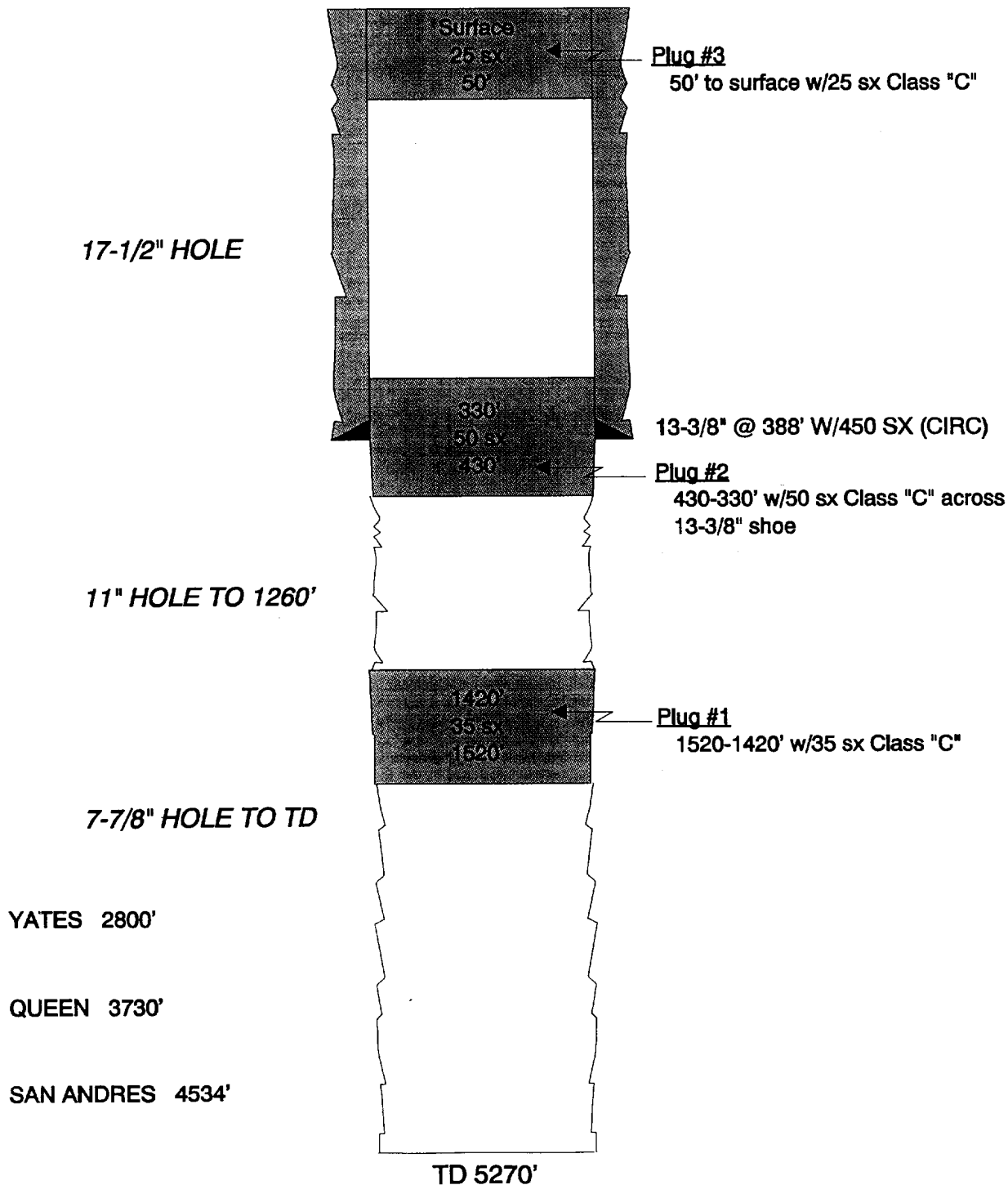
UNIT P SEC. 2-T17S-R33E

QUEEN FORMATION

LEA COUNTY, NEW MEXICO

RE-SPUD: 3/31/87

P&A: 4/5/87

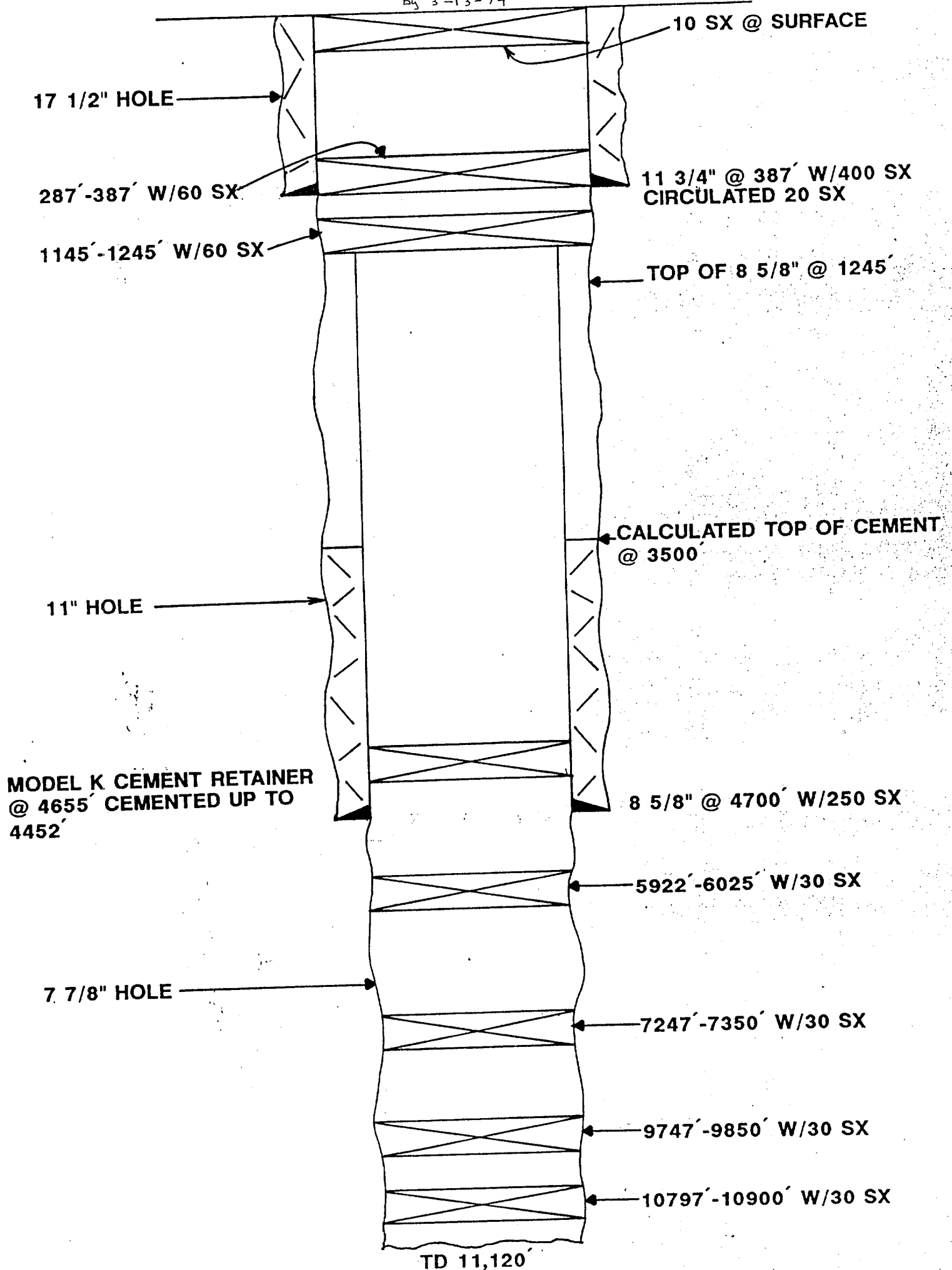


-3-  
**H. L. BROWN JR.**

STATE "B" #2  
SEC. 6-T17S-R34E  
UNIT M  
990' FSL & 330' FWL  
LEA COUNTY, NEW MEXICO  
SPUD: 9-20-73  
COMPLETION: 12-27-73

P & A

by 3-13-74



PETROLITE

16010 Barker's Point Lane • Houston, Texas 77079  
713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF  
Artesia, New Mexico 88210  
(505) 746-3588 Phone  
(505) 746-3580 Fax

WATER ANALYSIS REPORT

Company : YATES PETROLEUM  
Address : ARTESIA, NM  
Lease : SWEETTHING "AEB" STA  
Well : #1  
Sample Pt. : WELLHEAD

Date : 07/09/92  
Date Sampled : 07/08/92  
Analysis No. : 574

| ANALYSIS |                                                 | mg/L                   | * meq/L              |
|----------|-------------------------------------------------|------------------------|----------------------|
|          |                                                 | ----                   | -----                |
| 1.       | pH                                              | 5.6                    |                      |
| 2.       | H <sub>2</sub> S                                | 3 PPM                  |                      |
| 3.       | Specific Gravity                                | 1.205                  |                      |
| 4.       | Total Dissolved Solids                          | 339140.9               |                      |
| 5.       | Suspended Solids                                | NR                     |                      |
| 6.       | Dissolved Oxygen                                | NR                     |                      |
| 7.       | Dissolved CO <sub>2</sub>                       | 440 PPM                |                      |
| 8.       | Oil In Water                                    | NR                     |                      |
| 9.       | Phenolphthalein Alkalinity (CaCO <sub>3</sub> ) |                        |                      |
| 10.      | Methyl Orange Alkalinity (CaCO <sub>3</sub> )   | 100.0                  |                      |
| 11.      | Bicarbonate                                     | HCO <sub>3</sub> 122.0 | HCO <sub>3</sub> 2.0 |
| 12.      | Chloride                                        | Cl 208375.3            | Cl 5878.0            |
| 13.      | Sulfate                                         | SO <sub>4</sub> 2100.0 | SO <sub>4</sub> 43.7 |
| 14.      | Calcium                                         | Ca 3262.5              | Ca 162.8             |
| 15.      | Magnesium                                       | Mg 8066.1              | Mg 663.6             |
| 16.      | Sodium (calculated)                             | Na 117187.8            | Na 5097.3            |
| 17.      | Iron                                            | Fe 27.2                |                      |
| 18.      | Barium                                          | Ba 0.0                 |                      |
| 19.      | Strontium                                       | Sr 0.0                 |                      |
| 20.      | Total Hardness (CaCO <sub>3</sub> )             | 41357.2                |                      |

PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter                    | Compound                           | Equiv wt | X meq/L | = mg/L |
|-------------------------------------------------|------------------------------------|----------|---------|--------|
| 163 *Ca <----- *HCO <sub>3</sub>                | Ca(HCO <sub>3</sub> ) <sub>2</sub> | 81.0     | 2.0     | 162    |
| ----- /----->                                   | CaSO <sub>4</sub>                  | 68.1     | 43.7    | 2976   |
| 664 *Mg -----> *SO <sub>4</sub>                 | CaCl <sub>2</sub>                  | 55.5     | 117.1   | 6496   |
| ----- <----- /                                  | Mg(HCO <sub>3</sub> ) <sub>2</sub> | 73.2     |         |        |
| 5097 *Na -----> *Cl                             | MgSO <sub>4</sub>                  | 60.2     |         |        |
|                                                 | MgCl <sub>2</sub>                  | 47.6     | 663.6   | 31591  |
| Saturation Values Dist. Water 20 C              | NaHCO <sub>3</sub>                 | 84.0     |         |        |
| CaCO <sub>3</sub> 13 mg/L                       | Na <sub>2</sub> SO <sub>4</sub>    | 71.0     |         |        |
| CaSO <sub>4</sub> * 2H <sub>2</sub> O 2090 mg/L | NaCl                               | 58.4     | 5097.3  | 297888 |
| BaSO <sub>4</sub> 2.4 mg/L                      |                                    |          |         |        |

REMARKS:

L. MALLET / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
ROZANNE JOHNSON

# SCALE TENDENCY REPORT

|            |                        |              |                   |
|------------|------------------------|--------------|-------------------|
| Company    | : YATES PETROLEUM      | Date         | : 07/09/92        |
| Address    | : ARTESIA, NM          | Date Sampled | : 07/08/92        |
| Lease      | : SWEETTHING "AEB" STA | Analysis No. | : 574             |
| Well       | : #1                   | Analyst      | : ROZANNE JOHNSON |
| Sample Pt. | : WELLHEAD             |              |                   |

## STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

|        |      |    |          |      |         |   |
|--------|------|----|----------|------|---------|---|
| S.I. = | -0.7 | at | 80 deg.  | F or | 27 deg. | C |
| S.I. = | -0.8 | at | 100 deg. | F or | 38 deg. | C |
| S.I. = | -0.8 | at | 120 deg. | F or | 49 deg. | C |
| S.I. = | -0.8 | at | 140 deg. | F or | 60 deg. | C |
| S.I. = | -0.7 | at | 160 deg. | F or | 71 deg. | C |

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## CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

|     |      |    |          |      |        |   |
|-----|------|----|----------|------|--------|---|
| S = | 3616 | at | 80 deg.  | F or | 27 deg | C |
| S = | 3786 | at | 100 deg. | F or | 38 deg | C |
| S = | 3857 | at | 120 deg. | F or | 49 deg | C |
| S = | 3903 | at | 140 deg. | F or | 60 deg | C |
| S = | 3849 | at | 160 deg. | F or | 71 deg | C |

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
ROZANNE JOHNSON

# WATER ANALYSIS REPORT

Company : YATES PET.  
 Address : ARTESIA  
 Lease : WINDMILL  
 Well : WILLIAMS RANCH  
 Sample Pt. : OVERFLOW

Date : 10-25-90  
 Date Sampled : 10-23-90  
 Analysis No. : 1

| ANALYSIS                              | mg/L       | * meq/L  |
|---------------------------------------|------------|----------|
| 1. pH                                 | 7.5        |          |
| 2. H2S                                | NO         |          |
| 3. Specific Gravity                   | 1.0        |          |
| 4. Total Dissolved Solids             | 1334.2     |          |
| 5. Suspended Solids                   | NR         |          |
| 6. Dissolved Oxygen                   | NR         |          |
| 7. Dissolved CO2                      | NR         |          |
| 8. Oil In Water                       | NR         |          |
| 9. Phenolphthalein Alkalinity (CaCO3) |            |          |
| 10. Methyl Orange Alkalinity (CaCO3)  |            |          |
| 11. Bicarbonate                       | HCO3 207.0 | HCO3 3.4 |
| 12. Chloride                          | Cl 511.0   | Cl 14.4  |
| 13. Sulfate                           | SO4 150.0  | SO4 3.1  |
| 14. Calcium                           | Ca 72.0    | Ca 3.6   |
| 15. Magnesium                         | Mg 4.9     | Mg 0.4   |
| 16. Sodium (calculated)               | Na 389.3   | Na 16.9  |
| 17. Iron                              | Fe 0.0     |          |
| 18. Barium                            | Ba 0.0     |          |
| 19. Strontium                         | Sr 0.0     |          |
| 20. Total Hardness (CaCO3)            | 200.0      |          |

## PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter | Compound   | Equiv wt | X meq/L | = mg/L |
|------------------------------|------------|----------|---------|--------|
| 4 *Ca <----- *HCO3           | Ca (HCO3)2 | 81.0     | 3.4     | 275    |
| 0 *Mg -----> *SO4            | CaSO4      | 68.1     | 0.2     | 14     |
| 17 *Na -----> *Cl            | CaCl2      | 55.5     |         |        |
|                              | Mg (HCO3)2 | 73.2     |         |        |
|                              | MgSO4      | 60.2     | 0.4     | 24     |
|                              | MgCl2      | 47.6     |         |        |
|                              | NaHCO3     | 84.0     |         |        |
|                              | Na2SO4     | 71.0     | 2.5     | 179    |
|                              | NaCl       | 58.4     | 14.4    | 842    |

Saturation Values Dist. Water 20 C  
 CaCO3 13 mg/L  
 CaSO4 \* 2H2O 2090 mg/L  
 BaSO4 2.4 mg/L

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
LEE MALLET

-3-  
SCALE TENDENCY REPORT  
-----

Company : YATES PET.  
Address : ARTESIA  
Lease : WINDMILL  
Well : WILLIAMS RANCH  
Sample Pt. : OVERFLOW

Date : 10-25-90  
Date Sampled : 10-23-90  
Analysis No. : 1  
Analyst : LEE MALLETT

STABILITY INDEX CALCULATIONS  
(Stiff-Davis Method)  
CaCO<sub>3</sub> Scaling Tendency

|        |     |    |          |      |         |   |
|--------|-----|----|----------|------|---------|---|
| S.I. = | 0.0 | at | 60 deg.  | F or | 16 deg. | C |
| S.I. = | 0.1 | at | 80 deg.  | F or | 27 deg. | C |
| S.I. = | 0.2 | at | 100 deg. | F or | 38 deg. | C |
| S.I. = | 0.2 | at | 120 deg. | F or | 49 deg. | C |
| S.I. = | 0.3 | at | 140 deg. | F or | 60 deg. | C |

\*\*\*\*\*

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS  
(Skillman-McDonald-Stiff Method)  
Calcium Sulfate

|     |      |    |          |      |        |   |
|-----|------|----|----------|------|--------|---|
| S = | 1215 | at | 60 deg.  | F or | 16 deg | C |
| S = | 1228 | at | 80 deg.  | F or | 27 deg | C |
| S = | 1216 | at | 100 deg. | F or | 38 deg | C |
| S = | 1207 | at | 120 deg. | F or | 49 deg | C |
| S = | 1199 | at | 140 deg. | F or | 60 deg | C |

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
LEE MALLETT

# WATER ANALYSIS REPORT

Company : YATES PET.  
 Address : ARTESIA  
 Lease : FRESH-SWEETTHING  
 Well : 1  
 Sample Pt. : 50-50

Date : 10-25-90  
 Date Sampled : 10-23-90  
 Analysis No. : 1

| ANALYSIS |                                    | mg/L       | * meq/L   |
|----------|------------------------------------|------------|-----------|
| -----    |                                    | ----       | -----     |
| 1.       | pH                                 | 7.0        |           |
| 2.       | H2S                                | NO         |           |
| 3.       | Specific Gravity                   | 1.080      |           |
| 4.       | Total Dissolved Solids             | 128209.8   |           |
| 5.       | Suspended Solids                   | NR         |           |
| 6.       | Dissolved Oxygen                   | NR         |           |
| 7.       | Dissolved CO2                      | NR         |           |
| 8.       | Oil In Water                       | NR         |           |
| 9.       | Phenolphthalein Alkalinity (CaCO3) |            |           |
| 10.      | Methyl Orange Alkalinity (CaCO3)   |            |           |
| 11.      | Bicarbonate                        | HCO3 134.0 | HCO3 2.2  |
| 12.      | Chloride                           | Cl 78810.0 | Cl 2223.1 |
| 13.      | Sulfate                            | SO4 625.0  | SO4 13.0  |
| 14.      | Calcium                            | Ca 1200.0  | Ca 59.9   |
| 15.      | Magnesium                          | Mg 2964.0  | Mg 243.8  |
| 16.      | Sodium (calculated)                | Na 44476.8 | Na 1934.6 |
| 17.      | Iron                               | Fe 0.0     |           |
| 18.      | Barium                             | Ba 0.0     |           |
| 19.      | Strontium                          | Sr 0.0     |           |
| 20.      | Total Hardness (CaCO3)             | 15200.0    |           |

## PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter       |                             | Compound      Equiv wt X meq/L      =      mg/L |           |                            |
|------------------------------------|-----------------------------|-------------------------------------------------|-----------|----------------------------|
| +-----+                            |                             | -----                                           |           |                            |
| 60                                 | *Ca <----- *HCO3            | 2                                               | Ca(HCO3)2 | 81.0      2.2      178     |
|                                    | /----->                     |                                                 | CaSO4     | 68.1      13.0      886    |
| 244                                | *Mg -----> *SO4             | 13                                              | CaCl2     | 55.5      44.7      2479   |
|                                    | <-----/                     |                                                 | Mg(HCO3)2 | 73.2                       |
| 1935                               | *Na -----> *Cl              | 2223                                            | MgSO4     | 60.2                       |
|                                    |                             |                                                 | MgCl2     | 47.6      243.8      11608 |
| +-----+                            |                             | -----                                           |           |                            |
| Saturation Values Dist. Water 20 C |                             |                                                 |           |                            |
|                                    | CaCO3      13 mg/L          | NaHCO3      84.0                                |           |                            |
|                                    | CaSO4 * 2H2O      2090 mg/L | Na2SO4      71.0                                |           |                            |
|                                    | BaSO4      2.4 mg/L         | NaCl      58.4      1934.6      113059          |           |                            |

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
 LEE MALLET

Attachment 2  
SCALE TENDENCY REPORT  
-----

|            |                    |              |               |
|------------|--------------------|--------------|---------------|
| Company    | : YATES PET.       | Date         | : 10-25-90    |
| Address    | : ARTESIA          | Date Sampled | : 10-23-90    |
| Lease      | : FRESH-SWEETTHING | Analysis No. | : 1           |
| Well       | : 1                | Analyst      | : LEE MALLETT |
| Sample Pt. | : 50-50            |              |               |

STABILITY INDEX CALCULATIONS  
(Stiff-Davis Method)  
CaCO<sub>3</sub> Scaling Tendency

|        |      |    |          |      |         |   |
|--------|------|----|----------|------|---------|---|
| S.I. = | -0.1 | at | 60 deg.  | F or | 16 deg. | C |
| S.I. = | -0.1 | at | 80 deg.  | F or | 27 deg. | C |
| S.I. = | 0.0  | at | 100 deg. | F or | 38 deg. | C |
| S.I. = | 0.1  | at | 120 deg. | F or | 49 deg. | C |
| S.I. = | 0.2  | at | 140 deg. | F or | 60 deg. | C |

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS  
(Skillman-McDonald-Stiff Method)  
Calcium Sulfate

|     |      |    |          |      |        |   |
|-----|------|----|----------|------|--------|---|
| S = | 5673 | at | 60 deg.  | F or | 16 deg | C |
| S = | 6050 | at | 80 deg.  | F or | 27 deg | C |
| S = | 6290 | at | 100 deg. | F or | 38 deg | C |
| S = | 6403 | at | 120 deg. | F or | 49 deg | C |
| S = | 6485 | at | 140 deg. | F or | 60 deg | C |

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
LEE MALLETT

WATER ANALYSIS REPORT  
furnished by TRETOLITE CHEMICALS

COMPANY: YATES PETROLEUM  
LEASE: WILLIAMS WIND MILL  
SAMPLE POINT: WATER TANK  
SAMPLE DATE: 7-18-90  
SAMPLE TEMP.: N/A

APPROXIMATE LOCATION:  
NW/4 of SE/4 of  
Sec 12-T17S-R33E

pH: 8.0  
H<sub>2</sub>S: NO  
SPECIFIC GRAVITY: 1

TITRATED AND CALCULATED IONS

|                  | MILLIGRAMS<br>PER LITER | MILLIEQUIVALENTS<br>PER LITER |
|------------------|-------------------------|-------------------------------|
| HCO <sub>3</sub> | 122.00                  | 2.00                          |
| Cl               | 3621.00                 | 102.00                        |
| SO <sub>4</sub>  | 50.00                   | 1.04                          |
| Ca               | 320.00                  | 16.00                         |
| Mg               | 72.90                   | 5.98                          |
| Na               | 1910.52                 | 83.07                         |

IONIC STRENGTH = 0.12  
TOTAL HARDNESS = 1100.0 mg/ltr.  
TOTAL DISSOLVED SOLIDS = 6092.8 mg/ltr.

PROBABLE MINERAL COMPOSITION AND ION PAIRING

|                                     | MILLIEQUIVALENTS<br>PER LITER | MILLIGRAMS<br>PER LITER |
|-------------------------------------|-------------------------------|-------------------------|
| Ca (HCO <sub>3</sub> ) <sub>2</sub> | 2.00                          | 162.08                  |
| CaSO <sub>4</sub>                   | 1.04                          | 70.91                   |
| CaCl <sub>2</sub>                   | 12.96                         | 719.19                  |
| Mg (HCO <sub>3</sub> ) <sub>2</sub> | 0.00                          | 0.00                    |
| MgSO <sub>4</sub>                   | 0.00                          | 0.00                    |
| MgCl <sub>2</sub>                   | 5.98                          | 284.55                  |
| NaHCO <sub>3</sub>                  | 0.00                          | 0.00                    |
| Na <sub>2</sub> SO <sub>4</sub>     | 0.00                          | 0.00                    |
| NaCl                                | 83.07                         | 4856.05                 |

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO<sub>3</sub> @ 80 DEG F. = 0.8  
CaCO<sub>3</sub> @ 120 DEG F. = 1.2

SATURATION POINT

CaSO<sub>4</sub> @ 70 DEG F. = 2607.2 MG/LTR.  
CaSO<sub>4</sub> @ 110 DEG F. = 2654.4 MG/LTR.

(THIS SAMPLE CONTAINED 70.9 MG/LTR. CaSO<sub>4</sub>)

Attachment G

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

Penroc Oil Corporation  
P. O. Box 5970  
5014 Carlsbad Hwy  
Hobbs, NM 88241

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

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EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

**CERTIFIED RETURN RECEIPT**

Fina Oil & Chemical Company  
P. O. Box 2990  
6 Desta Drive  
Suite 4400  
Midland, Texas 79702

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

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Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

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1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
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EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

**CERTIFIED RETURN RECEIPT**

Elk Oil Company  
P. O. Box 310  
Sunwest Bank Building  
Suite 814  
Roswell, NM 88202

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2                      C 12-17S-33E

Hoover "ADR" State #2                      O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
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PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

H. L. Brown, Jr.  
P. O. Box 2237  
300 West Louisiana Street  
Midland, Texas 79702

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
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EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

JFG Enterprises  
P. O. Box 100  
Artesia, NM 88210

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
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EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

Lynx Petroleum Consultants, Inc.  
P. O. Box 1979  
Hobbs, New Mexico 88241

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1985



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
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RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

Eddy Potash, Inc.  
P. O. Box 31  
Carlsbad, New Mexico 88220

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



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ARTESIA, NEW MEXICO 88210  
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RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

Commissioner of Public Lands  
State Land Office  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the following Yates Petroleum wells in Lea County, New Mexico:

Billy "AES" State #2

C 12-17S-33E

Hoover "ADR" State #2

O 1-17S-33E

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Carolyn Bulovas Yates  
Petroleum Engineer

CBY/cvg

Enclosures

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

July 14, 1993

CERTIFIED RETURN RECEIPT

Mobil Oil Corporation  
12450 Greenspoint Drive  
Houston, Texas 77060-1991

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Petroleum Engineer

CBY/cvg

Enclosures

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

### REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

|                                                                                                                                                                                      |  |                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------|
| Operator<br>YATES PETROLEUM CORPORATION                                                                                                                                              |  | Well API No.                                                                       |
| Address<br>105 South 4th St., Artesia, NM 88210                                                                                                                                      |  |                                                                                    |
| Reason(s) for Filing (Check proper box)<br>New Well <input type="checkbox"/><br>Recompletion <input type="checkbox"/><br>Change in Operator <input type="checkbox"/>                 |  | <input type="checkbox"/> Other (Please explain)<br>EFFECTIVE DATE: January 1, 1991 |
| Change in Transporter of:<br>Oil <input type="checkbox"/> Dry Gas <input checked="" type="checkbox"/><br>Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/> |  |                                                                                    |
| If change of operator give name and address of previous operator                                                                                                                     |  |                                                                                    |

### II. DESCRIPTION OF WELL AND LEASE

|                                                                                                                                                  |               |                                                 |                                        |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|----------------------------------------|----------------------|
| Lease Name<br>Hoover ADR State                                                                                                                   | Well No.<br>2 | Pool Name, Including Formation<br>Sanmal- Queen | Kind of Lease<br>State, Federal or Fee | Lease No.<br>LG-3345 |
| Location<br>Unit Letter O : 990 Feet From The South Line and 2310 Feet From The East Line<br>Section 1 Township 17S Range 33E , NMPM, Lea County |               |                                                 |                                        |                      |

### III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

|                                                                                                                                                          |                                                                                                             |           |             |             |                                   |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|-------------|-------------|-----------------------------------|-------------------|
| Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/><br>Navajo Refining Co.                  | Address (Give address to which approved copy of this form is to be sent)<br>PO Box 159, Artesia, NM 88210   |           |             |             |                                   |                   |
| Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/><br>Warren Petroleum Corporation | Address (Give address to which approved copy of this form is to be sent)<br>P.O. Box 1589 - Tulsa, OK 74101 |           |             |             |                                   |                   |
| If well produces oil or liquids, give location of tanks.                                                                                                 | Unit<br>I                                                                                                   | Sec.<br>1 | Twp.<br>17S | Rge.<br>33E | Is gas actually connected?<br>Yes | When ?<br>2-14-87 |

If this production is commingled with that from any other lease or pool, give commingling order number:

### IV. COMPLETION DATA

|                                     |                             |          |                 |          |                   |           |            |            |
|-------------------------------------|-----------------------------|----------|-----------------|----------|-------------------|-----------|------------|------------|
| Designate Type of Completion - (X)  | Oil Well                    | Gas Well | New Well        | Workover | Deepen            | Plug Back | Same Res'v | Diff Res'v |
| Date Spudded                        | Date Compl. Ready to Prod.  |          | Total Depth     |          | P.B.T.D.          |           |            |            |
| Elevations (DF, RKB, RT, GR, etc.)  | Name of Producing Formation |          | Top Oil/Gas Pay |          | Tubing Depth      |           |            |            |
| Perforations                        |                             |          |                 |          | Depth Casing Shoe |           |            |            |
| TUBING, CASING AND CEMENTING RECORD |                             |          |                 |          |                   |           |            |            |
| HOLE SIZE                           | CASING & TUBING SIZE        |          | DEPTH SET       |          | SACKS CEMENT      |           |            |            |
|                                     |                             |          |                 |          |                   |           |            |            |
|                                     |                             |          |                 |          |                   |           |            |            |
|                                     |                             |          |                 |          |                   |           |            |            |

### V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

|                                |                 |                                               |            |
|--------------------------------|-----------------|-----------------------------------------------|------------|
| Date First New Oil Run To Tank | Date of Test    | Producing Method (Flow, pump, gas lift, etc.) |            |
| Length of Test                 | Tubing Pressure | Casing Pressure                               | Choke Size |
| Actual Prod. During Test       | Oil - Bbls.     | Water - Bbls.                                 | Gas- MCF   |

### GAS WELL

|                                  |                           |                           |                       |
|----------------------------------|---------------------------|---------------------------|-----------------------|
| Actual Prod. Test - MCF/D        | Length of Test            | Bbls. Condensate/MMCF     | Gravity of Condensate |
| Testing Method (pilot, back pr.) | Tubing Pressure (Shut-in) | Casing Pressure (Shut-in) | Choke Size            |

### VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature  
Juanita Goodlett - Production Supvr.  
Printed Name  
12-14-90  
Date  
Title  
(505) 748-1471  
Telephone No.

### OIL CONSERVATION DIVISION

Date Approved 12-17-1990  
By ORIGINAL SIGNED BY JERRY SEXTON  
DISTRICT I SUPERVISOR  
Title

### INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.