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**COG Operating, LLC**

**Application for Waterflood in the Yeso pool.**

**Mesquite State #15**

**API# 30-015-34496**

**Section 20, Township 17S, Range 29E, Unit L**

**1750' FSL & 990' FWL**

**Eddy County, New Mexico**

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: COG Operating, LLC      OGRID 229137

ADDRESS: 500 W Texas Ave, Suite 100, Midland, TX 79701

CONTACT PARTY: Kanicia Carrillo, Regulatory Analyst      PHONE: 432-685-4332

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 geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

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 sources 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: Kanicia Carrillo      TITLE: Regulatory Analyst

SIGNATURE: [Signature]      DATE: 01/13/10

E-MAIL ADDRESS: kcarillo@conchoresources.com

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

## 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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

CE: 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.

DATE IN 1-22-10

SUSPENSE

ENGINEER Warren

LOGGED IN 1-22-10

TYPE

APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION****- Engineering Bureau -****1220 South St. Francis Drive, Santa Fe, NM 87505****ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Mesquite State #15

API# 30-015-34496

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

- [D] Other: Specify Secondary Recovery ✓

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or  Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.****[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kanicia Carrillo  
Print or Type Name

Signature

Regulatory Analyst

01/13/10

Title

Date

kcarillo@conchoresources.com  
e-mail Address

432-685-4332

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Waterflood in the Yeso pool

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Statement

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## **Justification for Conversion to Injection**

### **Concho Resources**

Continental A State #11 (Sec 30 F, T-17S R-29E), Empire Field

Continental A State #12 (Sec 30 D, T-17S R-29E), Empire Field

✓ Mesquite State #15 (Sec 20 L, T-17S R-29E), Empire East Field ✓

Texaco BE #8 (Sec 16 B, T-17S, R-30E), Loco Hills Field

Eddy County, New Mexico

The purpose of converting each of these wells is to test the feasibility of secondary recovery operations in the Glorieta/Paddock and Blinebry intervals of the Yeso formation. The information obtained from these conversions may impact the potential recovery of secondary reserves in the Empire, Empire East, and Loco Hills fields in Eddy County, New Mexico. Data such as reservoir preferential permeability trends, injectivities into each interval, injection conformances, sweep efficiencies, and operating pressures may be incorporated into future studies concerning the feasibility of water flooding operations in the area.

Also attached are production plots of each proposed conversion with cumulative production listed from the Paddock interval.

### **OOIP & Recoverable Reserves**

Original oil in place (OOIP) estimates have been made for each lease based on core and log based volumetric calculations. The local impact or sweep from each proposed conversion is estimated below:

#### **Continental A State #11**

- Paddock OOIP/acre 42 MBO
- Blinebry OOIP/acre 54 MBO
- Total OOIP/acre 96 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 24 MBO

Continental A State #12

- Paddock OOIP/acre 42 MBO
- Blinebry OOIP/acre 54 MBO
- Total OOIP/acre 96 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 24 MBO

Mesquite State #15

- Paddock OOIP/acre 53 MBO
- Blinebry OOIP/acre 58 MBO
- Total OOIP/acre 111 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 28 MBO

Texaco BE #8

- Paddock OOIP/acre 37 MBO
- Blinebry OOIP/acre 75 MBO
- Total OOIP/acre 112 MBO
- Estimated impacted area 5 acres
- Estimated recovery 5% of OOIP
- Total estimated oil recovery 28 MBO

**Mobility Ratio Data**

Core data is available from several sources in the Empire and Loco Hills fields. Most of the core data includes porosity, permeability, and saturation data from mainly the Paddock interval. The nearest known relative permeability data in the Paddock is from Concho operated Skelly Unit #971 in the Fren Field, Section 14 K, T-17S, R-31E. A plot of Kro & Krw data from six Paddock core samples is attached. The data indicates a mobility ratio (Krw/Kro) of 1 is reached at water saturations exceeding 43%. Favorable mobility ratios are expected if the Sw's are less than 43%. No known relative permeability data exists for the Blinebry.

Calculated water saturations are generally less than 40% in the Paddock and Blinebry. It is expected that injection into this interval will sweep oil and not cause a harmful effect on surrounding production.

Successful secondary recovery will prevent waste of New Mexico's natural resources and contribute to local, state, and federal budget incomes.

### **Other Productive Zones**

Productive intervals exist both above and below the Yeso formation. Attached is a tabulation of nearby wells and their completion zones. Below is a summary of shallow and deep wells around the proposed conversion:

#### **Mesquite State #15**

- Shallow productive horizons include the Grayburg (2,200'-2,400').
- Deep productive horizons include the Morrow (10,600'-10,800').

### **Reservoir Bottom Hole Pressure Data**

In December, 2009, each well was shut in for 24 hours and the fluid level was shot with a sonic gun. Shut in bottom hole pressure data is attached and summarized below:

#### **Continental A State #11**

- 24 Hr SIBHP=273 PSIG

#### **Continental A State #12**

- 24 Hr SIBHP=498 PSIG

#### **Mesquite State #15**

- 24 Hr SIBHP=601 PSIG

#### **Texaco BE #8**

- 24 Hr SIBHP=388 PSIG

### **Maximum Permitted Injection Pressure**

Concho is asking for a maximum injection permit higher than the normal 0.2 PSI/Ft gradient because the Blinebry is usually tighter than the Paddock. Very little history of injection exists in the Blinebry. A well chronology listing the acid and frac treatments for the completion is attached. For the Mesquite 15, the 15 min after frac ISIP varied from 960 PSIG in the upper Blinebry to 1,218 PSIG in the Middle Blinebry.

## **Notifications**

In addition to publication in the Artesia Daily Press, notifications were sent to the following:

- Offset Operators—Cimarex, Clayton Williams, Legacy, & Mewbourne
- WIO in COG's offsetting tracts—Chevron & Fasken Oil and Ranch
- Leasehold—BLM and State Land Office

## Rate/Time Graph

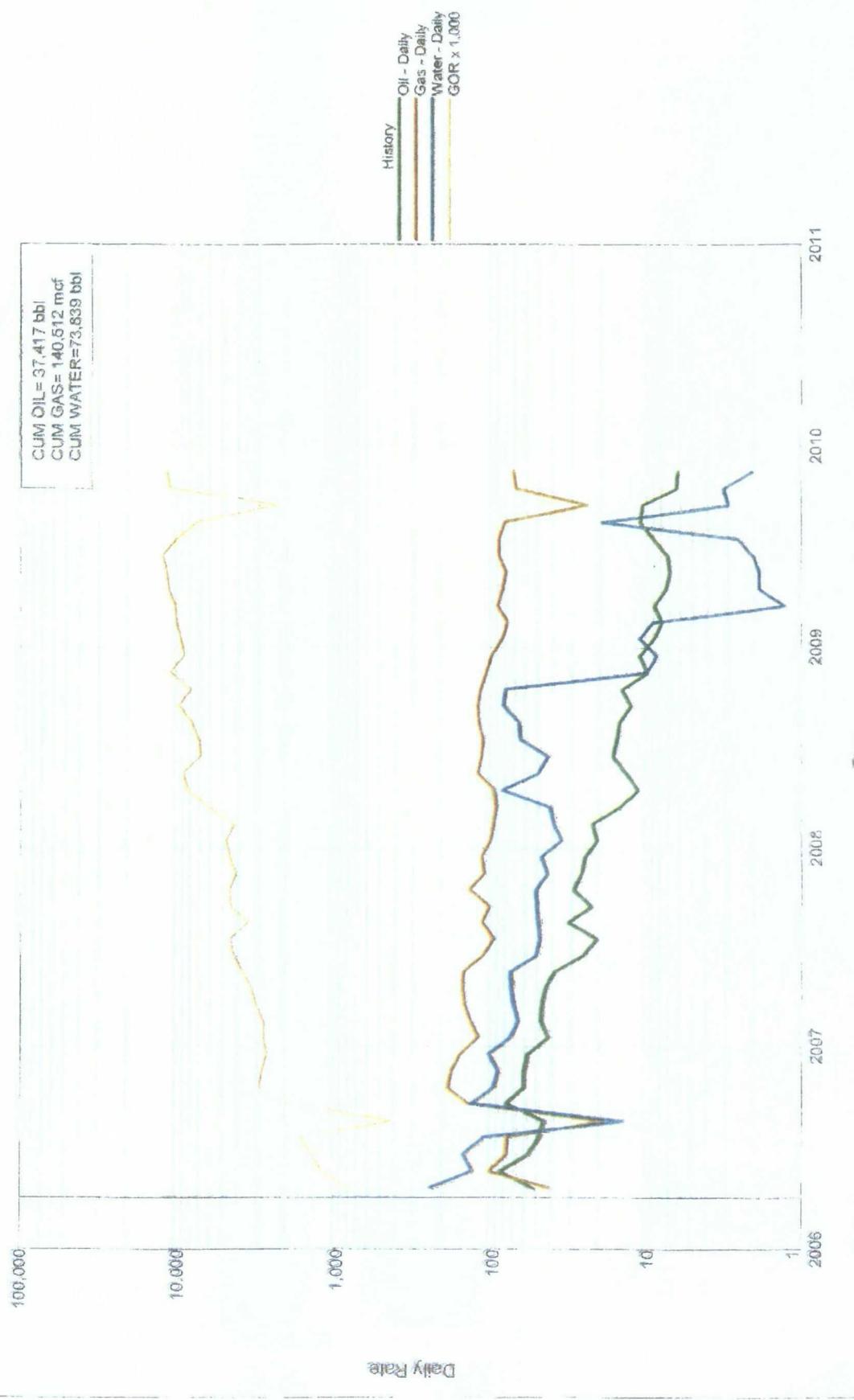
Project: u:\power tools\projects\dicke\empire area 1.mdb

Date: 12/16/2009  
Time: 9:43 AM

Lease Name: MESQUITE STATE (15)  
County, St: EDDY, NM  
Location: 20L 17S 29E SE NW SW

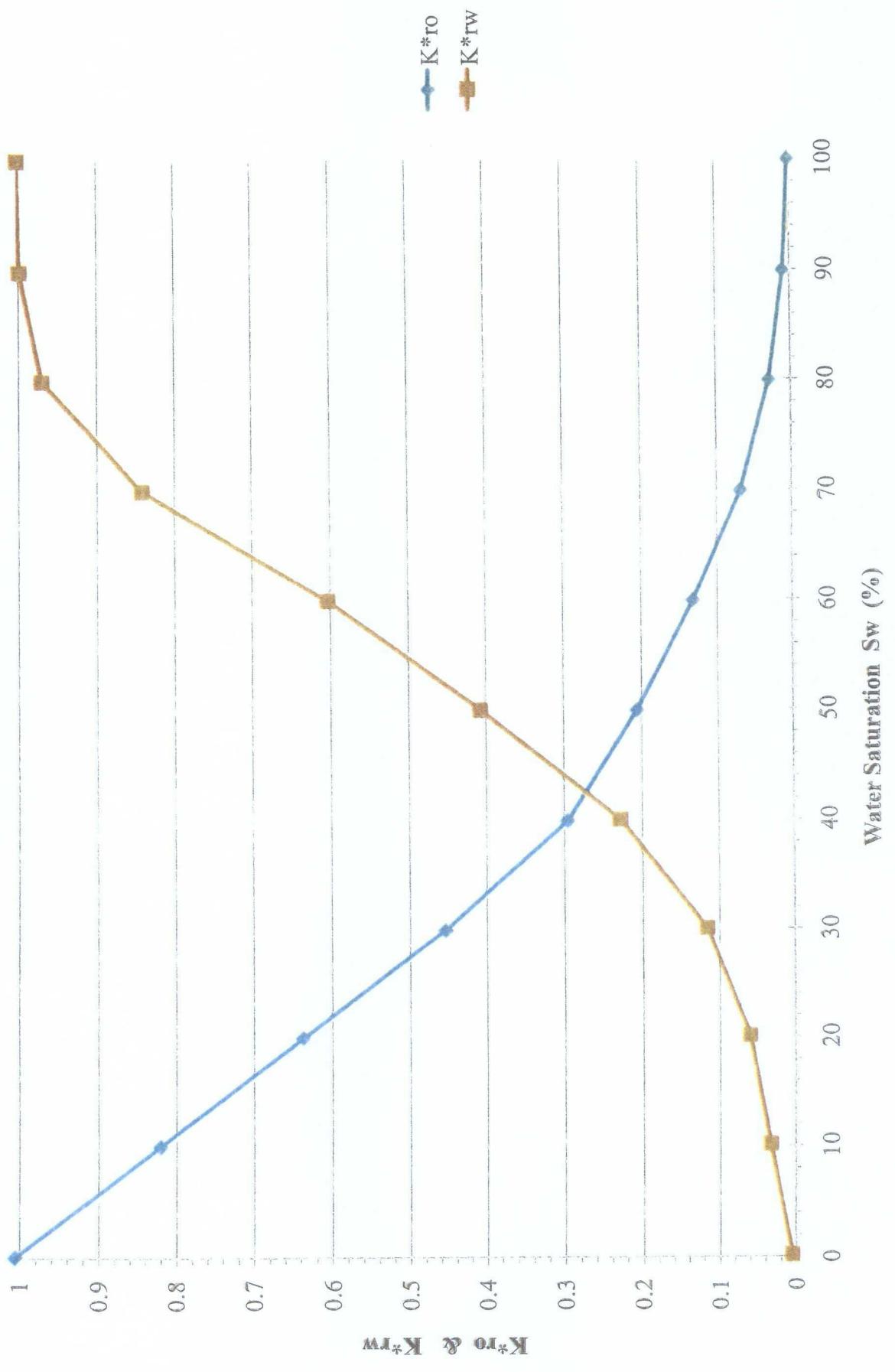
Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: EMPIRE EAST

OG OPERATING LIMITED LIABILITY CORP MESQUITE STATE (15) EMPIRE EAST EDDY NM GLORIETA YESO 20L 17S 29E SE NW SW



## Skelly 971 R Core Perm Plot

6 CORE PADDOCK AVG. NORMALIZED REL. PERM.  
COG SKELLY 971, SEC 14-K, T 17S R-31-E  
EDDY COUNTY, NM



# COG Mesquite 15 SIBHP Data

|                         |                        |
|-------------------------|------------------------|
| <b>WELL NAME:</b>       | Mesquite#15            |
| <b>CSG PRESSURE:</b>    | 73                     |
| <b>FEET TO FLUID:</b>   | 4186                   |
| <b>JTS TO FLUID:</b>    |                        |
| <b>GAS FREE LIQUID:</b> |                        |
| <b>COMMENTS:</b>        | SBHP 601               |
| <b>REMARKS:</b>         | 24 Hr SIBHP 12/17/2009 |

### III. Well Data

COG Operating, LLC  
Mesquite State #15  
API# 30-015-34496  
Sec 20, T17S, R29E, Unit L  
1750' FSL & 990' FWL  
Eddy County, NM

Tubing Size: 2-7/8" Lining Material: IPC

Type of Packer: Down Hole Flow Regulator—Tandem Packers

Packer Setting Depth: 3773' & 4300'

Other Type of Tubing/Casing Seal (if applicable): N/A

#### Additional Data

1. Is this a new well drilled for injection? \_\_\_\_\_ Yes  No

If no, for what purpose was the well originally drilled? Producing oil well.

2. Name of the Injection Formation: Paddock 3873.5 - 4214.5, Blinebry 4336.5 - 5289

3. Name of Field or Pool (if applicable): Empire; Yeso, East 96610

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Grayburg 2200' – 2300', Morrow 10,600' – 10,800'

### III. Well Data

#### COG Operating LLC

Mesquite State #15

API# 30-015-34496

Sec 20, T17S, R29E, Unit L

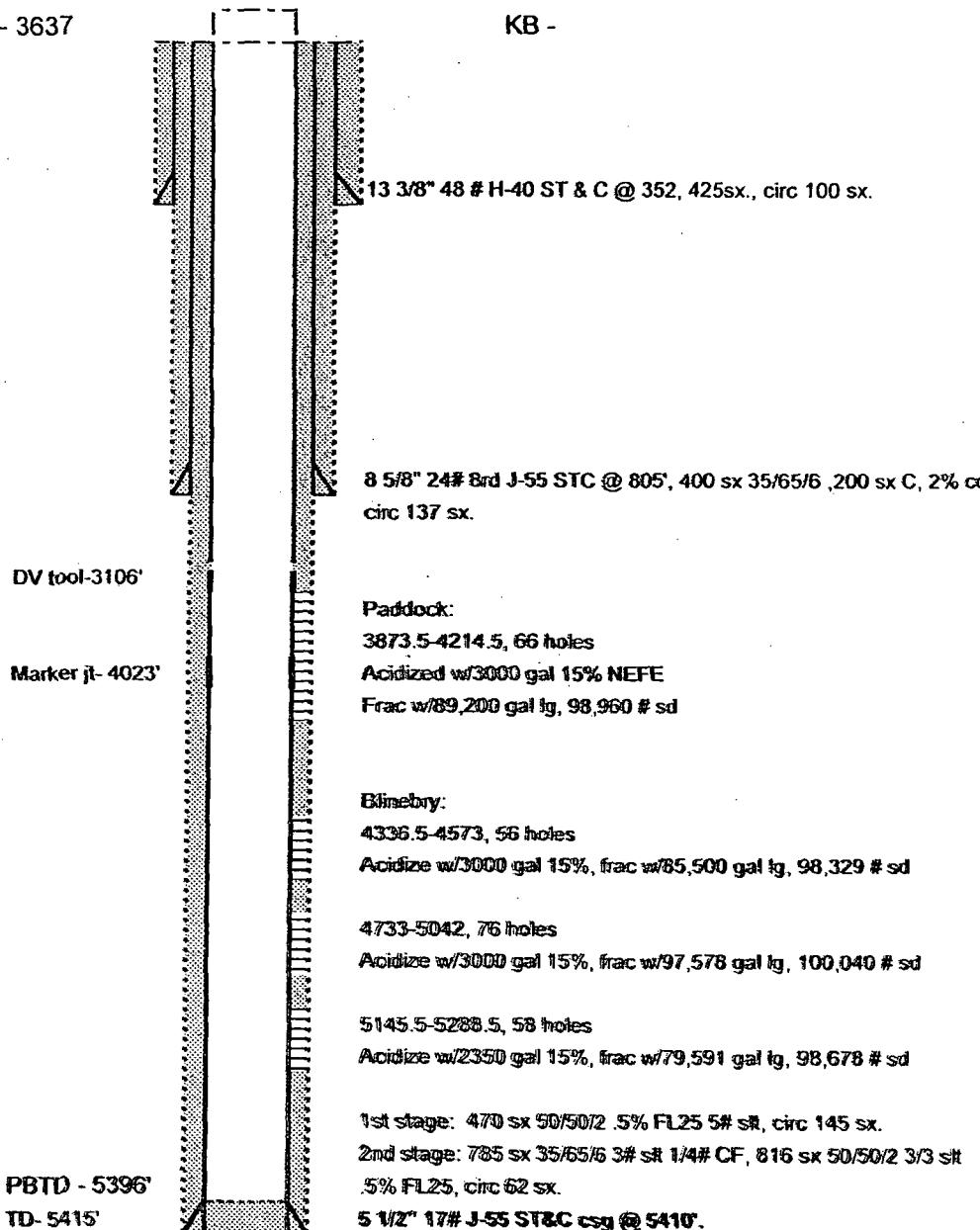
1750' FSL & 990' FWL

Eddy County, New Mexico

Spudded 3/12/06

Elevation - 3637

KB -



III. Well Data

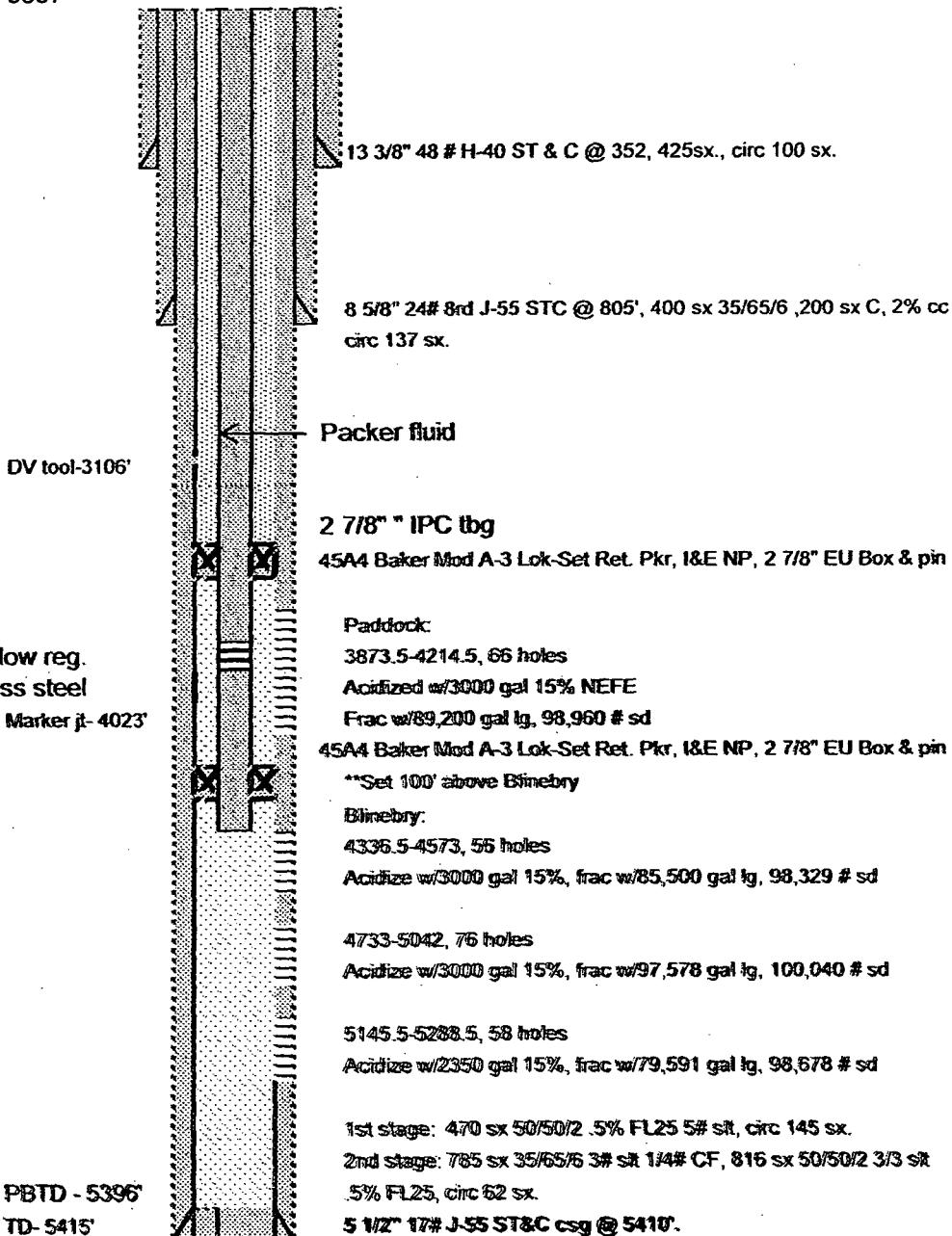
**COG Operating LLC**  
**Mesquite State #15—Proposed Conversion**  
 API# 30-015-34496  
 Sec 20, T17S, R29E, Unit L  
 1750' FSL & 990' FWL  
 Eddy County, New Mexico

Spudded 3/12/06

ACTIVE

Elevation - 3637

KB -



Normal Illustration  
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| MAX. O.D. | MIN. I.D. | WELL SCHEMATIC | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | LENGTH | DEPTH |
|-----------|-----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|
|           |           |                | <p>① TUBING HANGER<br/>SIZE:<br/>THREADS:<br/>MATERIAL:<br/>PRODUCT FAMILY:</p> <p>② INTERNALLY PLASTIC COATED INJECTION 1. TU RING<br/>SIZE: 2-7/8" G.F. LIGHT<br/>THREADS: 2-7/8" G.F. LIGHT EUE<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>③ MODEL C-1 TANDEM TENSION PACKER, WITH UNBALANCE<br/>SIZE: ASMA<br/>THREADS: 2-3/8" G.F. LIGHT EUE<br/>MATERIAL: 316 STAINLESS STEEL<br/>PRODUCT FAMILY:</p> <p>④ TUBING<br/>SIZE: 2-7/8" G.F. LIGHT<br/>THREADS: 2-7/8" G.F. LIGHT EUE<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>⑤ 8.5" SINGLE A.S. OVAL SEAT REGULATOR,<br/>FOR 8.5" "BET" FLUID REGULATOR, 8.5" ID EUE, 12A ST. RELATION AND IN REGULATOR.<br/>SIZE: 8.5"<br/>THREADS: 8.5" G.F. LIGHT EUE BACK TO PULL<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>⑥ TUBING<br/>SIZE: 8.5" G.F. LIGHT<br/>THREADS: 8.5" G.F. LIGHT EUE<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>⑦ MODEL N-2 UNBALANCE TENSION VALVE, CANAL, INC.<br/>SIZE: ASMA<br/>THREADS: 8.5" G.F. LIGHT EUE<br/>MATERIAL: 316<br/>PRODUCT FAMILY:</p> <p>⑧ TUBING<br/>SIZE: 8.5" G.F. LIGHT<br/>THREADS: 8.5" G.F. LIGHT EUE<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>⑨ 8.5" SINGLE A.S. OVAL SEAT REGULATOR,<br/>FOR 8.5" "BET" FLUID REGULATOR, 8.5" ID EUE, 12A ST. RELATION AND IN REGULATOR.<br/>SIZE: 8.5"<br/>THREADS: 8.5" G.F. LIGHT EUE BACK TO PULL<br/>MATERIAL: J-45<br/>PRODUCT FAMILY:</p> <p>⑩ TUBING HANGER<br/>SIZE: 2-7/8"<br/>THREADS:<br/>MATERIAL:<br/>PRODUCT FAMILY:</p> |        |       |



## WELL CHRONOLOGY REPORT

|                                |                      |                        |
|--------------------------------|----------------------|------------------------|
| WELL NAME : MESQUITE STATE #15 | DIVISION: NEW MEXICO | EVENT: 50              |
| FIELD : EMPIRE EAST            | LOCATION:            |                        |
| COUNTY & STATE : EDDY          | CONTRACTOR:          |                        |
| WI % : AFE #: NM               | API #: 30-015-34496  | PLAN DEPTH :           |
| DHC : CWC :                    | AFE TOTAL:           | SPUD DATE : 03/12/2006 |

|                                                                                                                                            |         |       |         |       |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|---------|-------|
| REPORT DATE: 04/06/2005 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>WOC                                                                                                                      |         |       |         |       |
| MIRU Rig #3, Spud 17 1/2" hole at 8:00pm, 03/12/2006.                                                                                      |         |       |         |       |
| REPORT DATE: 03/12/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>Drig 17 1/2" hole at 273', Ftg made 233', MW 8.3, Vis 29,                                                                |         |       |         |       |
| REPORT DATE: 03/13/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>TD 17 1/2", Ran 13 3/8", 48#, H-40, ST&C, 352', Cmt/w 425sx "C"+2%CaCl2.<br>Plug down at 4:30pm. Circulate 100sx to pit. |         |       |         |       |
| REPORT DATE: 03/14/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>Drig 7 7/8 hole @1694'. Made 889'. MW 9.2 Vis 29 pH 10. Survey 1217 3/4 Deg.                                             |         |       |         |       |
| REPORT DATE: 03/18/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>TOH for bit @ 2371'. Made 677'.                                                                                          |         |       |         |       |
| REPORT DATE: 03/19/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>Drig 7 7/8 hole @ 2980' Made 609' MW 9.3 Vis 29 pH 10. Survey 2835' 1 3/4 Deg..                                          |         |       |         |       |
| REPORT DATE: 03/20/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>Drig 7 7/8 hole @3620' Made 669' MW 9.3 Vis 29 pH 10.                                                                    |         |       |         |       |
| REPORT DATE: 03/21/2006 MD:                                                                                                                | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC: \$0                                                                                                                            | CC: \$0 |       | TC: \$0 |       |
| CUM : DC: \$0                                                                                                                              | CC: \$0 |       | TC: \$0 |       |
| DAILY DETAILS:<br>Drig 7 7/8 hole @ 4290' Made 669' MW 9.3 Vis 29 pH 10. Survey @ 4071' 1 Deg                                              |         |       |         |       |



# WELL CHRONOLOGY REPORT

|                                       |                             |                               |
|---------------------------------------|-----------------------------|-------------------------------|
| WELL NAME : <u>MESQUITE STATE #15</u> | DIVISION: <u>NEW MEXICO</u> | EVENT: <u>50</u>              |
| FIELD : <u>EMPIRE EAST</u>            | LOCATION :                  |                               |
| COUNTY & STATE : <u>EDDY</u>          | CONTRACTOR :                |                               |
| WI % : <u>A</u>                       | API # : <u>30-015-34496</u> | PLAN DEPTH : <u></u>          |
| DHC : <u></u>                         | CWC : <u></u>               | SPUD DATE : <u>03/12/2006</u> |
|                                       | AFE TOTAL : <u></u>         | FORMATION: <u>YESO</u>        |

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 03/22/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

Drlg 7 7/8 hole @ 4735'. Made 445'. Survey @ 4360 1 Deg

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 03/23/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

Loggers T.D. 5415 @ 12:15pm

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 03/24/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

Nipple down. Loggers TD at 5415'

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 03/25/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

Ran 5 1/2 " 17# J-55 ST&C @ 5410'. C/w 1st stage 50/50/ 2% C+ 3/10 % fl52 + 5% Salt + 1% fl25 + 1% BA58. Bump Plug @ 2:00pm Circulated 145 sx.2nd Stage 50/50/2 C+ 3/10 % Fl52 + 5% Salt + 1% Fl25 + 1% Ba58 + 5/10% SMS. Bump plug @ 9:00 pm Circulate 62sx  
03/2606WOC

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 04/04/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

WOC

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 04/05/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

WOC

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 04/07/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

RU unit #85 RIH w/ 4 3/4" tooth bit drill collars on 2 7/8" J-55. Drill out DV tool and RIH circ @ PBTD POH laydown drill collars.

|              |            |     |         |       |         |       |
|--------------|------------|-----|---------|-------|---------|-------|
| REPORT DATE: | 04/08/2006 | MD: | TVD:    | DAYS: | MW:     | VISC: |
| DAILY : DC:  | \$0        |     | CC: \$0 |       | TC: \$0 |       |
| CUM : DC:    | \$0        |     | CC: \$0 |       | TC: \$0 |       |

**DAILY DETAILS:**

Rig up Schlumberger and ran PDC and perforated Blinbry 5145.5-5288.5" 29 setting 29 setting 2/spf 58 holes.



# WELL CHRONOLOGY REPORT

**WELL NAME : MESQUITE STATE #15**
**DIVISION: NEW MEXICO**
**EVENT: 50**
**ELD: EMPIRE EAST**
**LOCATION:**
**COUNTY & STATE : EDDY**
**CONTRACTOR:**
**WI %: AFE #:** 
**NM  
API #: 30-015-34496**
**PLAN DEPTH:**
**SPUD DATE : 03/12/2006**
**DHC : CWC :**
**AFE TOTAL :**
**FORMATION: YES**
**REPORT DATE: 04/09/2006 MD:**
**TVB:**
 **DAYS:**
**MW:**
**VISC:**
**DAILY : DC: \$0**
**CC: \$0**
**TC: \$0**
**CUM : DC: \$0**
**CC: \$0**
**TC: \$0**
**DAILY DETAILS:**

RIH PPI & acidize perfs 5145.5-5288.5 w/2500 gals.

**REPORT DATE: 04/10/2006 MD:**
**TVB:**
 **DAYS:**
**MW:**
**VISC:**
**DAILY : DC: \$0**
**CC: \$0**
**TC: \$0**
**CUM : DC: \$0**
**CC: \$0**
**TC: \$0**
**DAILY DETAILS:**

RIH w/ 5 1/2" Ppi tool & PPI w/ 15 bbls 15% NEFE fish valves set PKR @ 5069'  
 open bypass & spot acid and balls to PKR close bypass & acidize w/ 2350 gals  
 15% NEFE acid & 175 balls. Balled off 5270# w/120 ball. Avg rate 6.5 bpm Avg  
 PSI 2200# ISIP 1250# 5 min 1083# 10min 1010# 15min. 965# flow back capacity of fbg. & RU swab IFL @ surf FFI @ surf  
 4600' swab dry on 7th run w/2% oil cut. Leave open to pit

**REPORT DATE: 04/11/2006 MD:**
**TVB:**
 **DAYS:**
**MW:**
**VISC:**
**DAILY : DC: \$0**
**CC: \$0**
**TC: \$0**
**CUM : DC: \$0**
**CC: \$0**
**TC: \$0**
**DAILY DETAILS:**

Swab tag fluid @ 2000' from surf. Pull 1500' fluid w/25% oil cut. POH RU BJ  
 and frac w/ Stank hybrid 500 gals techni hib ahead 6000 gals 30# linear gel pad  
 start 1/4# 16/30 white sand in 4000 gals 30# linear gel. Pump 8018# lite prop  
 125 14/30, 15# - .35# in 26544 gals 30# linear gel. Pump 79520# 16/30 white  
 sand 1/2# to 33 in 44,066 gals 40# linear gel tail in w/15,160# siber prop 16/30  
 resin coated sand @ 3# Flush w/ 4981 gals 40# linear gel.

**REPORT DATE: 04/12/2006 MD:**
**TVB:**
 **DAYS:**
**MW:**
**VISC:**
**DAILY : DC: \$0**
**CC: \$0**
**TC: \$0**
**CUM : DC: \$0**
**CC: \$0**
**TC: \$0**
**DAILY DETAILS:**

SICP-845 psi bled off to pit, ND frac valve and NU wellhead and BOP. Rig up  
 Schlumberger and perforate Blinney 4733-5042' 38 setting 2 SPF 76 holes. Rig whipline  
 down and RIH with PPI tool and RSP PPI/acidize with 3000 gals. 15% NEFE  
 and 208 ball sealers. All perfs open ball out to 5000 psi avg. psi-2100 avg. rate -  
 6.2 bpm ISIP- 1130, 5 min-897 10min 652 15min-542. Open to pit made 1 swab  
 run, FL @ surf pulled 1500' flowed acid for 10 minutes SDFD.

**REPORT DATE: 04/13/2006 MD:**
**TVB:**
 **DAYS:**
**MW:**
**VISC:**
**DAILY : DC: \$0**
**CC: \$0**
**TC: \$0**
**CUM : DC: \$0**
**CC: \$0**
**TC: \$0**
**DAILY DETAILS:**

Made 10 swab runs, IFL @ 100' from surf, FFL @ 1200' from surf, rec. 80 Bbls  
 fluid last run had 1% oil and some good gas. Unset pkr and POH. NU frac valve  
 and pump 5 tank hybrid frac. 40,000 gals. 30# linear gel, 57,578 gals. 40# linear  
 gel, 8,000 lbs. LiteProp 125 14/30, 76,680 lbs. White 16/30 and 15,300 lbs.  
 SiberProp 16/30. Min psi-2055, avg psi-2180, max psi-3100, avg rate-84 BPM.  
 ISIP-1411, 5 min.-1296 10 min.-1249 15 min.-1218.

CONCHO

## WELL CHRONOLOGY REPORT

|                                       |        |                                  |                             |                               |
|---------------------------------------|--------|----------------------------------|-----------------------------|-------------------------------|
| <b>WELL NAME : MESQUITE STATE #15</b> |        |                                  | DIVISION: <u>NEW MEXICO</u> | EVENT: <u>50</u>              |
| ELD : <u>EMPIRE EAST</u>              |        |                                  | LOCATION :                  |                               |
| COUNTY & STATE : <u>EDDY</u>          |        |                                  | CONTRACTOR :                |                               |
| WI %:                                 | AFE #: | NM<br>API #: <u>30-015-34496</u> | PLAN DEPTH :                | SPUD DATE : <u>03/12/2006</u> |
| DHC :                                 | CWC :  | AFE TOTAL :                      | FORMATION: <u>YESO</u>      |                               |

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/14/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

SICP-750 psi, bled off and ND frac valve and NU wellhead and BOP. RIH w/retieving head and wash 65' sand, unset RBP and POH. Rig up Schlumberger and perforate Blinbry 4336.5-4573' 28 settings 2/SPF 56 holes. Rig wireline down and RIH with PPI tool and RBP. PPI/acidize with 3000 gals. 15% NEFE and 168 ball sealers. Ball out to 5000 psi, avg. psi-2000, avg. rate-6.4 BPM. ISIP-1200, 5 min.-1165, 10 min.-1157, 15 min.-1153. Made 1 swab run, well flowed backacid for 30 min. SDFD.

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/15/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

1st swab tag 300' from surface pulled 1700' with 100' free oil good gas burn and 5% cut on rest of run. Unset PKR POH ND BOP NU 5MFrac head. Rig up BJ HYBYRD FRAC HYBYRD FRAC 5-Tanks 8009# Liteprop, 75,030# White Ottawa 16/30, 15,240# SiberProp 16/30 (TOTAL 98,329#) using 91,482gals 30# & 40# Linear Gel, Avg rate 82 BPM Avg Press 2275PSI, ISIP 1425PSI, 5m-1280PSI, 10m-1080PSI, 15m-960PSI. Shut well in rig BJ down.

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/17/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

Well on vaccum RIH wash 70' sand off PTBP & POH. RIH clean out to PBTD @ 5396' land SN @ 5308' w/171 jts NO ANCHOR. RIH w/2 1/2x2x24" trash pump 125 new T-66 3/4" rods & 74 new T-66 7/8" rods, 2x7/8 & 2x3/4" ponyes.

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/18/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

No report.

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/19/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

water dry gas

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/20/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

stain

|                                |     |                |       |                |       |
|--------------------------------|-----|----------------|-------|----------------|-------|
| REPORT DATE: <u>04/21/2006</u> | MD: | TVD:           | DAYS: | MW:            | VISC: |
| DAILY : DC: <u>\$0</u>         |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |
| CUM : DC: <u>\$0</u>           |     | CC: <u>\$0</u> |       | TC: <u>\$0</u> |       |

## DAILY DETAILS:

193

# FOLK FED / STATE

Mewbourne Oil  
Empire 18 St. Com.

Clayton Williams  
Phillips 19 Federal

STATE S-19

CONTINENTAL

COLD STAR

30

WESTERN

MIMOSA

NAVAHO

CONTINENTAL

Mesquite State #15

Clayton  
Williams  
STATE 20E

Mewbourne  
NM EC 1st Com  
SWD 1

Humble  
State 15

EMPIRE 20  
STATE

Humble  
State 15

Clayton Williams  
STATE 20B

MESQUITE

TENNECO

RINCON

Marbeck  
MUSKEGON  
SOUTH STATE

Clayton Williams

RINCON

Legacy  
Empire Deep 29 Fed 1

WHITE

STAR

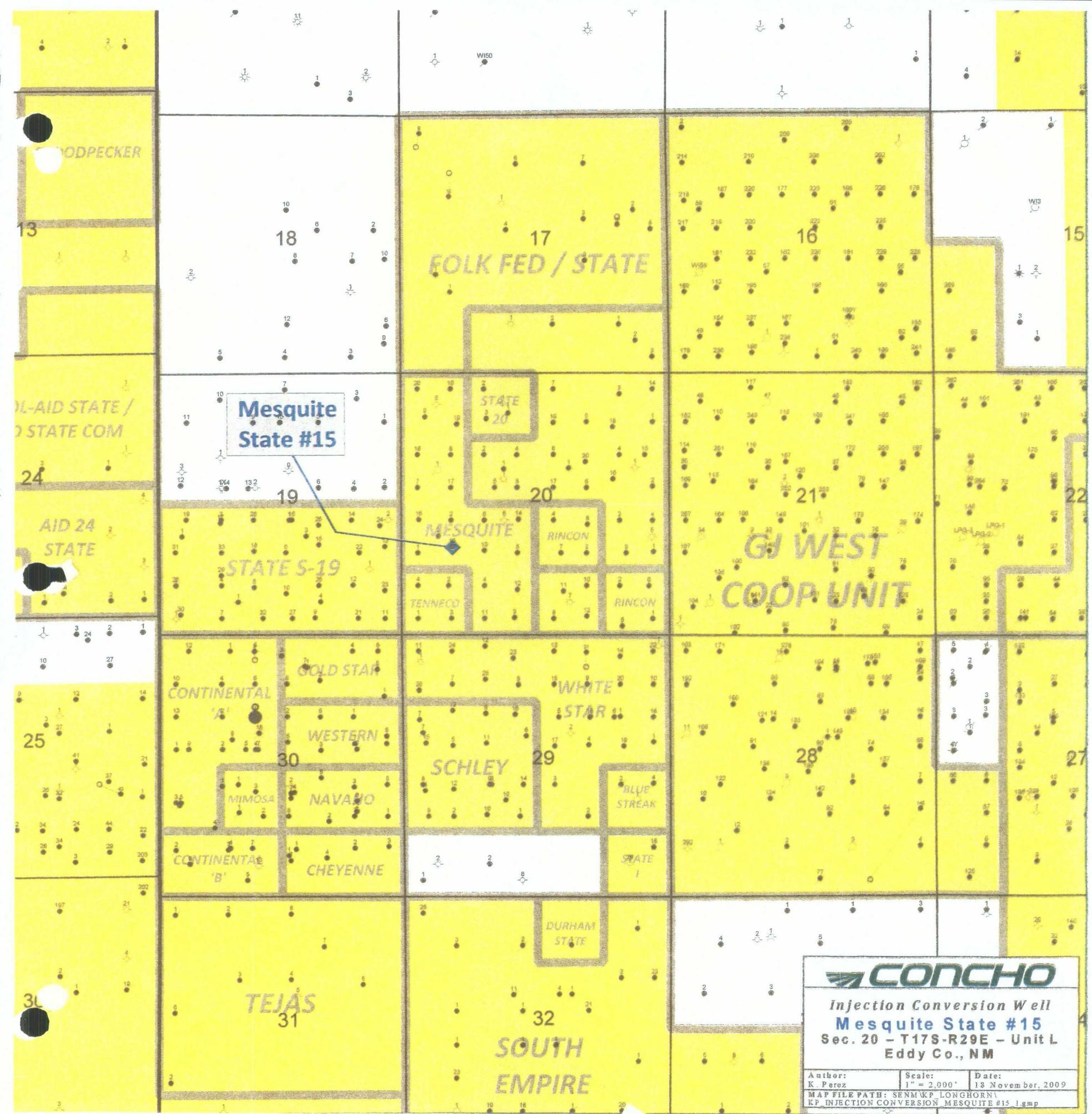
29

**CONCHO**

Injection Conversion Well  
Mesquite State #15  
Sec. 20 - T17S-R29E - Unit L  
Eddy Co., NM

Author: K. Perez  
Scale: 1" = 1,900' 18 November, 2009  
MAP FILE PATH: SENMKP LONGHORN\\  
KP\_INJECTION CONVERSION\_MESQUITE #15\_2.gwp

COG Leasehold



## Mesquite 15. Wells by Sec

| Total Wells Penetrating the<br>Injection Interval            | 66                    |                  |                      |      |      |          |                    |    |                           |                           |                           |                         |                          |                           |       |
|--------------------------------------------------------------|-----------------------|------------------|----------------------|------|------|----------|--------------------|----|---------------------------|---------------------------|---------------------------|-------------------------|--------------------------|---------------------------|-------|
| Total P & A'd Wells<br>Penetrating the Injection<br>Interval | 0                     |                  |                      |      |      |          |                    |    |                           |                           |                           |                         |                          |                           |       |
| API Number                                                   | Operator Current Name | Lease Name       | Well #               | Seat | Unit | Township | Range<br>Direction | T  | Footage<br>North<br>South | Footage<br>North<br>South | Footage<br>North<br>South | Footage<br>East<br>West | Footage<br>Start<br>Line | Depth<br>Total<br>Driller |       |
| 30015312250000                                               | ENR                   | CLAYTON WILLIAMS | PHILLIPS '19 FEDERAL | 2    | 19   | H        | S                  | 17 | E                         | 29                        | 2310                      | FNL                     | 330                      | FEL                       | 4,556 |
| 30015334020000                                               | ENR                   | CLAYTON WILLIAMS | PHILLIPS '19 FEDERAL | 4    | 19   | H        | S                  | 17 | E                         | 29                        | 2310                      | FNL                     | 990                      | FEL                       | 4,200 |
| 30015309150000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 11   | 19   | P        | S                  | 17 | E                         | 29                        | 230                       | FSL                     | 330                      | FEL                       | 4,221 |
| 30015307290000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 12   | 19   | P        | S                  | 17 | E                         | 29                        | 990                       | FSL                     | 990                      | FEL                       | 4,223 |
| 30015309160000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 13   | 19   | I        | S                  | 17 | E                         | 29                        | 1775                      | FSL                     | 330                      | FEL                       | 4,467 |
| 30015308240000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 14   | 19   | I        | S                  | 17 | E                         | 29                        | 2310                      | FSL                     | 990                      | FEL                       | 4,411 |
| 30015309170000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 15   | 19   | I        | S                  | 17 | E                         | 29                        | 1815                      | FSL                     | 1650                     | FEL                       | 4,402 |
| 30015320620000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 21   | 19   | P        | S                  | 17 | E                         | 29                        | 330                       | FSL                     | 865                      | FEL                       | 4,375 |
| 30015322260000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 22   | 19   | I        | S                  | 17 | E                         | 29                        | 1650                      | FSL                     | 840                      | FEL                       | 4,430 |
| 30015348250000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 23   | 19   | P        | S                  | 17 | E                         | 29                        | 890                       | FSL                     | 330                      | FEL                       | 5,410 |
| 30015348260000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 24   | 19   | I        | S                  | 17 | E                         | 29                        | 2195                      | FSL                     | 430                      | FEL                       | 5,475 |
| 30015348270000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 25   | 19   | O        | S                  | 17 | E                         | 29                        | 990                       | FSL                     | 1650                     | FEL                       | 5,460 |
| 30015348280000                                               | COG OPERATING LLC     | STATE '\$19'     | STATE '\$19'         | 26   | 19   | J        | S                  | 17 | E                         | 29                        | 2210                      | FSL                     | 1650                     | FEL                       | 5,435 |
| 30015036010000                                               | CONTINENTAL OIL CO    | STATE '\$19'     | STATE '\$19'         | 2    | 19   | I        | S                  | 17 | E                         | 29                        | 2310                      | FSL                     | 330                      | FEL                       | 2,450 |
| 30015310530000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 8    | 20   | G        | S                  | 17 | E                         | 29                        | 1650                      | FNL                     | 2310                     | FEL                       | 5,000 |
| 30015309710000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 9    | 20   | O        | S                  | 17 | E                         | 29                        | 330                       | FSL                     | 2310                     | FEL                       | 4,732 |
| 30015310340000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 10   | 20   | O        | S                  | 17 | E                         | 29                        | 990                       | FSL                     | 1650                     | FEL                       | 5,000 |
| 30015326950000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 11   | 20   | O        | S                  | 17 | E                         | 29                        | 880                       | FSL                     | 2115                     | FEL                       | 4,487 |
| 30015326870000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 12   | 20   | O        | S                  | 17 | E                         | 29                        | 380                       | FSL                     | 1650                     | FEL                       | 4,506 |
| 30015330760000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 17   | 20   | G        | S                  | 17 | E                         | 29                        | 2310                      | FNL                     | 2310                     | FEL                       | 4,315 |
| 30015320700000                                               | ENR                   | CLAYTON WILLIAMS | STATE '20B'          | 3    | 20   | C        | S                  | 17 | E                         | 29                        | 925                       | FNL                     | 1700                     | FVL                       | 4,328 |
| 30015306370000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 1    | 20   | L        | S                  | 17 | E                         | 29                        | 1650                      | FSL                     | 330                      | FVL                       | 4,218 |
| 30015336912000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 2    | 20   | L        | S                  | 17 | E                         | 29                        | 2310                      | FSL                     | 990                      | FVL                       | 4,350 |
| 30015307260000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 3    | 20   | N        | S                  | 17 | E                         | 29                        | 330                       | FSL                     | 2225                     | FVL                       | 4,316 |
| 30015339130000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 4    | 20   | N        | S                  | 17 | E                         | 29                        | 950                       | FSL                     | 1650                     | FVL                       | 4,241 |
| 30015307270000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 5    | 20   | K        | S                  | 17 | E                         | 29                        | 1650                      | FSL                     | 2310                     | FVL                       | 4,320 |
| 30015309140000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 6    | 20   | K        | S                  | 17 | E                         | 29                        | 2310                      | FSL                     | 1650                     | FVL                       | 4,331 |
| 30015308660000                                               | COG OPERATING LLC     | MESQUITE STATE   | MESQUITE STATE       | 7    | 20   | E        | S                  | 17 | E                         | 29                        | 2310                      | FNL                     | 330                      | FVL                       | 4,215 |

Mesquite 15  
Wells by Sec

| API Number             | Operator Current Name | Lease Name               | Well # | Sect | Unit | Township | Direction | T | Range | Direction | R   | Footage |       | Footage    |       | Footage |      | Depth<br>Total<br>Driller |  |
|------------------------|-----------------------|--------------------------|--------|------|------|----------|-----------|---|-------|-----------|-----|---------|-------|------------|-------|---------|------|---------------------------|--|
|                        |                       |                          |        |      |      |          |           |   |       |           |     | North   | South | Start Line | North | South   | East | West                      |  |
| 30015305400000         | COG OPERATING LLC     | MESQUITE STATE           | 8      | 20   | E    | S        | 17        | E | 29    | 1650      | FNL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 4,340                   |  |
| 30015309410000         | COG OPERATING LLC     | MESQUITE STATE           | 9      | 20   | D    | S        | 17        | E | 29    | 890       | FNL | 480     | FNL   | 480        | FNL   | 480     | FNL  | - 4,286                   |  |
| 30015311790000         | COG OPERATING LLC     | MESQUITE STATE           | 11     | 20   | N    | S        | 17        | E | 29    | 330       | FSL | 1650    | FNL   | 1650       | FNL   | 1650    | FNL  | - 4,455                   |  |
| 30015321590001         | COG OPERATING LLC     | MESQUITE STATE           | 12     | 20   | N    | S        | 17        | E | 29    | 910       | FSL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 5,477                   |  |
| 30015336820001         | COG OPERATING LLC     | MESQUITE STATE           | 13     | 20   | K    | S        | 17        | E | 29    | 1700      | FSL | 1650    | FNL   | 1650       | FNL   | 1650    | FNL  | - 4,295                   |  |
| 30015344950000         | COG OPERATING LLC     | MESQUITE STATE           | 14     | 20   | K    | S        | 17        | E | 29    | 2310      | FSL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 6,020                   |  |
| 30015344960000         | COG OPERATING LLC     | MESQUITE STATE           | 15     | 20   | L    | S        | 17        | E | 29    | 1750      | FSL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 5,413                   |  |
| 30015344970000         | COG OPERATING LLC     | MESQUITE STATE           | 16     | 20   | L    | S        | 17        | E | 29    | 2310      | FSL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 5,414                   |  |
| 300153448180000        | COG OPERATING LLC     | MESQUITE STATE           | 17     | 20   | D    | S        | 17        | E | 29    | 2310      | FNL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 5,420                   |  |
| 300153448190000        | COG OPERATING LLC     | MESQUITE STATE           | 18     | 20   | E    | S        | 17        | E | 29    | 1650      | FNL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 5,405                   |  |
| 30015348290000         | COG OPERATING LLC     | MESQUITE STATE           | 19     | 20   | D    | S        | 17        | E | 29    | 1035      | FNL | 1115    | FNL   | 1115       | FNL   | 1115    | FNL  | - 5,401                   |  |
| 30015306790000         | COG OPERATING LLC     | RINCON STATE             | 3      | 20   | J    | S        | 17        | E | 29    | 1650      | FSL | 1650    | FEL   | 1650       | FEL   | 1650    | FEL  | - 4,335                   |  |
| 30015309430000         | COG OPERATING LLC     | RINCON STATE             | 4      | 20   | J    | S        | 17        | E | 29    | 2310      | FSL | 2310    | FEL   | 2310       | FEL   | 2310    | FEL  | - 4,375                   |  |
| 30015321580000         | COG OPERATING LLC     | RINCON STATE             | 7      | 20   | J    | S        | 17        | E | 29    | 1650      | FSL | 2160    | FEL   | 2160       | FEL   | 2160    | FEL  | - 4,401                   |  |
| 30015344830000         | COG OPERATING LLC     | RINCON STATE             | 8      | 20   | J    | S        | 17        | E | 29    | 2204      | FSL | 1650    | FEL   | 1650       | FEL   | 1650    | FEL  | - 4,295                   |  |
| 30015306630000         | COG OPERATING LLC     | TENNeco STATE            | 1      | 20   | M    | S        | 17        | E | 29    | 330       | FSL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 5,120                   |  |
| 30015308610000         | COG OPERATING LLC     | TENNeco STATE            | 2      | 20   | M    | S        | 17        | E | 29    | 990       | FSL | 940     | FNL   | 940        | FNL   | 940     | FNL  | - 4,280                   |  |
| 300153114800000        | COG OPERATING LLC     | TENNeco STATE            | 3      | 20   | M    | S        | 17        | E | 29    | 330       | FSL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 4,335                   |  |
| 300153222420000        | COG OPERATING LLC     | TENNeco STATE            | 4      | 20   | M    | S        | 17        | E | 29    | 990       | FSL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 4,280                   |  |
| 30015030130000         | KING ADD&WATSON DRLG  | HUMBLE STATE             | 1      | 20   | F    | S        | 17        | E | 29    | 1980      | FNL | 1980    | FNL   | 1980       | FNL   | 1980    | FNL  | - 2,286                   |  |
| 30015030150000         | KING ADD&WATSON DRLG  | HUMBLE STATE             | 5      | 20   | D    | S        | 17        | E | 29    | 660       | FNL | 660     | FNL   | 660        | FNL   | 660     | FNL  | - 2,455                   |  |
| 300152271350001        | MEWBURNE OIL CO       | EMPIRE '20' STATE        | 1      | 20   | F    | S        | 17        | E | 29    | 2180      | FNL | 1980    | FNL   | 1980       | FNL   | 1980    | FNL  | - 10,920                  |  |
| 300153126680000        | MEWBURNE OIL CO       | EMPIRE '20' STATE        | 2      | 20   | F    | S        | 17        | E | 29    | 1650      | FNL | 1650    | FNL   | 1650       | FNL   | 1650    | FNL  | - 4,290                   |  |
| 300153126900000        | MEWBURNE OIL CO       | EMPIRE '20' STATE        | 3      | 20   | F    | S        | 17        | E | 29    | 2310      | FNL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 4,290                   |  |
| 300153487300000        | MEWBURNE OIL CO       | EMPIRE '20' STATE        | 4      | 20   | F    | S        | 17        | E | 29    | 1650      | FNL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 7,500                   |  |
| 300153587460000        | MEWBURNE OIL CO       | EMPIRE '20' STATE        | 5      | 20   | F    | S        | 17        | E | 29    | 2310      | FNL | 1860    | FNL   | 1860       | FNL   | 1860    | FNL  | - 5,515                   |  |
| 300152407700001        | MEWBURNE OIL CO       | NEW MEXICO 'EO' STATE    | WD-1   | 20   | E    | S        | 17        | E | 29    | 1980      | FNL | 660     | FNL   | 660        | FNL   | 660     | FNL  | - 10,850                  |  |
| 300153081300000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 7      | 29   | D    | S        | 17        | E | 29    | 990       | FNL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 4,408                   |  |
| 300153070700000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 8      | 29   | C    | S        | 17        | E | 29    | 1002      | FNL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 4,355                   |  |
| 300153027700000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 11     | 29   | D    | S        | 17        | E | 29    | 330       | FNL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 4,404                   |  |
| 300153247280000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 12     | 29   | C    | S        | 17        | E | 29    | 230       | FNL | 1650    | FNL   | 1650       | FNL   | 1650    | FNL  | - 4,385                   |  |
| 300153092960000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 13     | 29   | B    | S        | 17        | E | 29    | 330       | FNL | 2310    | FNL   | 2310       | FNL   | 2310    | FNL  | - 4,362                   |  |
| 300153245600000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 23     | 29   | C    | S        | 17        | E | 29    | 470       | FNL | 2210    | FNL   | 2210       | FNL   | 2210    | FNL  | - 4,378                   |  |
| 300153233960000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 24     | 29   | D    | S        | 17        | E | 29    | 330       | FNL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 4,310                   |  |
| 300153260600000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 25     | 29   | C    | S        | 17        | E | 29    | 890       | FNL | 1650    | FNL   | 1650       | FNL   | 1650    | FNL  | - 4,370                   |  |
| 300153233100000        | COG OPERATING LLC     | WHITE STAR FEDERAL       | 26     | 29   | D    | S        | 17        | E | 29    | 1115      | FNL | 330     | FNL   | 330        | FNL   | 330     | FNL  | - 4,350                   |  |
| <b>LEGACY RESERVES</b> |                       |                          |        |      |      |          |           |   |       |           |     |         |       |            |       |         |      |                           |  |
| 300153118130000        | OPERATING             | EMPIRE DEEP '21' FEDERAL | 1      | 29   | D    | S        | 17        | E | 29    | 540       | FNL | 370     | FNL   | 370        | FNL   | 370     | FNL  | 11,000                    |  |
| 300153305090000        | COG OPERATING LLC     | GOLD STAR FEDERAL        | 4      | 30   | A    | S        | 17        | E | 29    | 330       | FNL | 990     | FNL   | 990        | FNL   | 990     | FNL  | - 4,309                   |  |
| 300153170300000        | COG OPERATING LLC     | GOLD STAR FEDERAL        | 5      | 30   | A    | S        | 17        | E | 29    | 700       | FNL | 500     | FNL   | 500        | FNL   | 500     | FNL  | - 4,226                   |  |
| 300153222890000        | COG OPERATING LLC     | GOLD STAR FEDERAL        | 6      | 30   | A    | S        | 17        | E | 29    | 330       | FNL | 485     | FNL   | 485        | FNL   | 485     | FNL  | - 4,275                   |  |

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| Total Wells Penetrating the<br>Injection Interval          | 66                    |                      |        |                  |            |                   |                |                   |            |                    |                   |
|------------------------------------------------------------|-----------------------|----------------------|--------|------------------|------------|-------------------|----------------|-------------------|------------|--------------------|-------------------|
| Total P&A'd Wells<br>Penetrating the Injection<br>Interval | 0                     |                      |        |                  |            |                   |                |                   |            |                    |                   |
| API Number                                                 | Operator Current Name | Leave Name           | Well # | Field Name       | State Name | Formation<br>Name | County<br>Name | Producing<br>Name | Date Spud  | Date<br>Completion | Date<br>Abandon'd |
| 30015341200000 ENR                                         | CIMAREX               | CP STATE COM         | 1      | EMPIRE SOUTH     | NEW MEXICO | EDDY MORROW       | EDDY           | YESO              | 10/22/2005 | 1/25/2006          |                   |
| 30015312250000 ENR                                         | CLAYTON WILLIAMS      | PHILLIPS '19 FEDERAL | 2      | GRAYBURG JACKSON | NEW MEXICO | EDDY              | EDDY           | YESO              | 9/17/2000  | 10/18/2000         |                   |
| 30015335020000 ENR                                         | CLAYTON WILLIAMS      | PHILLIPS '19 FEDERAL | 4      | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 10/28/2004 | 11/26/2004         |                   |
| 30015307290000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 11     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 6/26/2000  | 8/18/2000          |                   |
| 30015309160000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 12     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 11/29/1999 | 1/5/2000           |                   |
| 30015309440000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 13     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 6/11/2000  | 7/24/2000          |                   |
| 30015309170000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 14     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 5/24/2000  | 5/22/2000          |                   |
| 30015309170000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 15     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 2/19/2000  | 4/13/2000          |                   |
| 30015320620000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 21     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 2/23/2002  | 4/6/2002           |                   |
| 30015322260000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 22     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 5/25/2002  | 6/27/2002          |                   |
| 30015348270000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 23     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 8/7/2006   | 9/10/2006          |                   |
| 30015348260000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 24     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 9/7/2006   | 11/6/2006          |                   |
| 30015348270000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 25     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 6/29/2006  | 8/23/2006          |                   |
| 30015348260000 COG OPERATING LLC                           | STATE 'S-19'          | STATE 'S-19'         | 26     | EMPIRE           | NEW MEXICO | EDDY              | EDDY           | YESO              | 8/20/2006  | 10/6/2006          |                   |
| 300150300100000 CONTINENTAL OIL CO                         | STATE 'S-19'          | CLAYTON WILLIAMS     | 2      | GRAYBURG JACKSON | NEW MEXICO | EDDY              | EDDY           | GRAYBURG          | 6/20/1957  | 8/28/1957          | 3/7/2001          |
| 30015310330000 ENR                                         | CLAYTON WILLIAMS      | STATE '20B'          | 8      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | GLORIETA          | 4/20/2000  | 5/23/2000          |                   |
| 30015309710000 ENR                                         | CLAYTON WILLIAMS      | STATE '20B'          | 9      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 3/6/2000   | 4/13/2000          |                   |
| 30015310340000 ENR                                         | CLAYTON WILLIAMS      | STATE '20B'          | 10     | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 5/16/2000  | 7/5/2000           |                   |
| 30015326950000 ENR                                         | CLAYTON WILLIAMS      | STATE '20 B          | 11     | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 4/8/2003   | 5/19/2003          |                   |
| 30015326870000 ENR                                         | CLAYTON WILLIAMS      | STATE '20 B          | 12     | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 3/26/2003  | 4/17/2003          |                   |
| 30015330760000 ENR                                         | CLAYTON WILLIAMS      | STATE '20B'          | 17     | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 11/7/2003  | 12/3/2003          |                   |
| 30015332070000 ENR                                         | CLAYTON WILLIAMS      | STATE '20E           | 3      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 2/17/2004  | 3/15/2004          |                   |
| 30015300370000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 1      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 8/9/1999   | 9/18/1999          |                   |
| 30015309120000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 2      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 3/11/2000  | 4/14/2000          |                   |
| 30015307560000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 3      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 9/22/1999  | 11/11/1999         |                   |
| 30015309130000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 4      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 5/29/2000  | 6/28/2000          |                   |
| 30015307570000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 5      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 11/16/1999 | 12/20/1999         |                   |
| 30015309140000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 6      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | YESO              | 1/16/2000  | 3/16/2000          |                   |
| 30015308660000 COG OPERATING LLC                           | MESQUITE STATE        | MESQUITE STATE       | 7      | EMPIRE EAST      | NEW MEXICO | EDDY              | EDDY           | PADDOCK           | 12/26/1999 | 3/16/2000          |                   |

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| API Number      | Operator Current Name | Lease Name               | Well # | Field Name       | State Name | County Name | Formation Producing Name | Date Spud  | Date Completion | Date Abandon'd |
|-----------------|-----------------------|--------------------------|--------|------------------|------------|-------------|--------------------------|------------|-----------------|----------------|
|                 |                       |                          |        |                  |            |             |                          |            |                 |                |
| 300153089400000 | COG OPERATING LLC     | MESQUITE STATE           | 8      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 4/18/2000  | 6/15/2000       |                |
| 300153089410000 | COG OPERATING LLC     | MESQUITE STATE           | 9      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 7/22/2000  | 8/29/2000       |                |
| 3001531799000   | COG OPERATING LLC     | MESQUITE STATE           | 11     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 10/13/2001 | 12/30/2001      |                |
| 30015321590001  | COG OPERATING LLC     | MESQUITE STATE           | 12     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 11/20/2007 | 1/2/2008        |                |
| 300153336220001 | COG OPERATING LLC     | MESQUITE STATE           | 13     | EMPIRE EAST      | NEW MEXICO | EDDY        | SAN ANDRES               | 11/10/2005 | 12/13/2005      |                |
| 30015344940000  | COG OPERATING LLC     | MESQUITE STATE           | 14     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 2/5/2006   | 4/17/2006       |                |
| 30015344960000  | COG OPERATING LLC     | MESQUITE STATE           | 15     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 3/12/2006  | 5/9/2006        |                |
| 30015344970000  | COG OPERATING LLC     | MESQUITE STATE           | 16     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 3/16/2006  | 5/10/2006       |                |
| 30015334818000  | COG OPERATING LLC     | MESQUITE STATE           | 17     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 5/7/2006   | 6/12/2006       |                |
| 30015334819000  | COG OPERATING LLC     | MESQUITE STATE           | 18     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 5/20/2006  | 7/5/2006        |                |
| 30015344820000  | COG OPERATING LLC     | MESQUITE STATE           | 19     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 7/24/2006  | 8/29/2006       |                |
| 30015308730000  | CGD OPERATING LLC     | RINCON STATE             | 3      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 9/9/1999   | 10/28/1999      |                |
| 300153089430000 | CGD OPERATING LLC     | RINCON STATE             | 4      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 2/8/2000   | 3/21/2000       |                |
| 30015321580000  | CGD OPERATING LLC     | RINCON STATE             | 7      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 4/18/2002  | 5/23/2002       |                |
| 30015343830000  | CGD OPERATING LLC     | RINCON STATE             | 8      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 11/25/2005 | 1/10/2006       |                |
| 30015308630000  | COG OPERATING LLC     | TENNECO STATE            | 1      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 4/4/1999   | 6/16/1999       |                |
| 30015308610000  | COG OPERATING LLC     | TENNECO STATE            | 2      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 12/17/1999 | 2/8/2000        |                |
| 30015314800000  | COG OPERATING LLC     | TENNECO STATE            | 3      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 12/9/2000  | 1/28/2001       |                |
| 30015322420000  | COG OPERATING LLC     | TENNECO STATE            | 4      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 5/17/2002  | 6/18/2002       |                |
| 30015030130000  | DRLG                  | HUMBLE STATE             | 1      | GRAYBURG JACKSON | NEW MEXICO | EDDY        | GRAYBURG                 | 12/31/1955 | 2/15/1956       |                |
| 30015030150000  | DRLG                  | HUMBLE STATE             | 5      | GRAYBURG JACKSON | NEW MEXICO | EDDY        |                          | 2/2/1957   | 3/13/1957       | 3/15/1957      |
| 30015271350001  | MEWBOURNE OIL CO      | EMPIRE '20 STATE         | 1      | EMPIRE SOUTH     | NEW MEXICO | EDDY        | MORROW                   | 11/18/1992 | 12/7/1992       |                |
| 30015312680000  | MEWBOURNE OIL CO      | EMPIRE '20 STATE         | 2      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 12/28/2000 | 2/8/2001        |                |
| 30015312690000  | MEWBOURNE OIL CO      | EMPIRE '20 STATE         | 3      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 12/17/2000 | 2/1/2001        |                |
| 30015336730000  | MEWBOURNE OIL CO      | EMPIRE '20 STATE         | 4      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 11/18/2007 | 2/5/2008        |                |
| 30015336740000  | MEWBOURNE OIL CO      | EMPIRE '20 STATE         | 5      | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 12/9/2007  | 1/13/2008       |                |
| 30015240770001  | MEWBOURNE OIL CO      | NEW MEXICO 'EO' STATE    | WD-1   | EMPIRE SOUTH     | NEW MEXICO | EDDY        | PADDOCK                  | 9/20/2000  | 10/19/2000      |                |
| 300153080130000 | COG OPERATING LLC     | WHITE STAR FEDERAL       | 7      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 12/3/1999  | 1/7/2000        |                |
| 30015307070000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 8      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 8/25/1999  | 10/16/1999      |                |
| 30015309270000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 11     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 8/30/2000  | 10/19/2000      |                |
| 30015309280000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 12     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 4/5/2000   | 5/24/2000       |                |
| 30015309290000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 13     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 1/26/2000  | 4/13/2000       |                |
| 30015323360000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 23     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 7/28/2002  | 9/9/2002        |                |
| 30015323390000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 24     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 7/3/2002   | 8/13/2002       |                |
| 30015324090000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 25     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 12/31/2002 | 2/25/2003       |                |
| 30015323310000  | COG OPERATING LLC     | WHITE STAR FEDERAL       | 26     | EMPIRE EAST      | NEW MEXICO | EDDY        | YESO                     | 12/20/2002 | 2/22/2003       |                |
|                 |                       | LEGACY RESERVES          |        |                  |            |             |                          |            |                 |                |
| 3001531813000   | OPERATING             | EMPIRE DEEP '29' FEDERAL | 1      | GRAYBURG         | NEW MEXICO | EDDY        | MORROW                   | 7/4/2001   | 9/25/2001       |                |
| 30015308509000  | COG OPERATING LLC     | GOLD STAR FEDERAL        | 4      | EMPIRE EAST      | NEW MEXICO | EDDY        | PADDOCK                  | 6/17/1999  | 7/14/1999       |                |
| 3001531703000   | COG OPERATING LLC     | GOLD STAR FEDERAL        | 5      | EMPIRE           | NEW MEXICO | EDDY        | PADDOCK                  | 6/8/2001   | 7/12/2001       |                |
| 30015322840000  | COG OPERATING LLC     | GOLD STAR FEDERAL        | 6      | EMPIRE           | NEW MEXICO | EDDY        | YESO                     | 6/22/2002  | 8/22/2002       |                |

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| Total Wells Penetrating the<br>Injection Interval            |                       | 66                   |
|--------------------------------------------------------------|-----------------------|----------------------|
| Total P & A'd Wells<br>Penetrating the Injection<br>Interval |                       | 0                    |
|                                                              |                       |                      |
| API Number                                                   | Operator Current Name | Lease Name           |
| 30015341200000 ENR                                           | CIMAREX               | CP STATE COM         |
| 30015312230000 ENR                                           | CLAYTON WILLIAMS      | PHILLIPS '19 FEDERAL |
| 30015335030000 ENR                                           | CLAYTON WILLIAMS      | PHILLIPS '19 FEDERAL |
| 30015309130000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015307230000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015309160000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015309440000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015309170000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015309620000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015322260000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015348210000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015348210000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015348270000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015348280000 COG OPERATING LLC                             | STATE S-19'           | STATE S-19'          |
| 30015030010000 CONTINENTAL OIL CO                            | STATE S-19'           | STATE S-19'          |
| 30015310530000 ENR                                           | CLAYTON WILLIAMS      | STATE 20B'           |
| 30015309710000 ENR                                           | CLAYTON WILLIAMS      | STATE 20B'           |
| 30015310540000 ENR                                           | CLAYTON WILLIAMS      | STATE 20B'           |
| 30015326930000 ENR                                           | CLAYTON WILLIAMS      | STATE 20 B           |
| 30015326870000 ENR                                           | CLAYTON WILLIAMS      | STATE 20 B           |
| 30015330700000 ENR                                           | CLAYTON WILLIAMS      | STATE 20B            |
| 300153312070000 ENR                                          | CLAYTON WILLIAMS      | STATE 20B            |
| 30015303700000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015309150000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015307240000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015309190000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015307270000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015309140000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |
| 30015308660000 COG OPERATING LLC                             | MESQUITE STATE        | MESQUITE STATE       |

Mesquite 15 / 1  
Wells by Sec

| API Number      | Operator Current Name | Lease Name              | Well # | Date First Report | Date Last Activity |
|-----------------|-----------------------|-------------------------|--------|-------------------|--------------------|
| 30015309400000  | COG OPERATING LLC     | MESQUITE STATE          | 8      | 1/31/2000         | 2/26/2008          |
| 30015309410000  | COG OPERATING LLC     | MESQUITE STATE          | 9      | 1/31/2000         | 8/18/2005          |
| 30015317990000  | COG OPERATING LLC     | MESQUITE STATE          | 11     | 6/7/2001          | 8/18/2005          |
| 30015321590001  | COG OPERATING LLC     | MESQUITE STATE          | 12     | 11/14/2007        | 11/14/2007         |
| 30015336520001  | COG OPERATING LLC     | MESQUITE STATE          | 13     | 1/23/2006         | 10/13/2009         |
| 30015344560000  | COG OPERATING LLC     | MESQUITE STATE          | 14     | 1/5/2006          | 1/23/2007          |
| 30015344560000  | COG OPERATING LLC     | MESQUITE STATE          | 15     | 1/5/2006          | 1/23/2007          |
| 30015344570000  | COG OPERATING LLC     | MESQUITE STATE          | 16     | 1/5/2006          | 1/23/2007          |
| 30015344810000  | COG OPERATING LLC     | MESQUITE STATE          | 17     | 4/27/2006         | 1/23/2007          |
| 30015344819000  | COG OPERATING LLC     | MESQUITE STATE          | 18     | 4/27/2006         | 1/23/2007          |
| 30015344830000  | COG OPERATING LLC     | MESQUITE STATE          | 19     | 4/27/2006         | 12/19/2007         |
| 30015306530000  | COG OPERATING LLC     | RINCON STATE            | 3      | 6/23/1999         | 8/18/2005          |
| 30015309430000  | COG OPERATING LLC     | RINCON STATE            | 4      | 1/31/2000         | 8/18/2005          |
| 30015321580000  | COG OPERATING LLC     | RINCON STATE            | 7      | 1/18/2002         | 8/18/2005          |
| 30015344830000  | COG OPERATING LLC     | RINCON STATE            | 8      | 10/19/2005        | 1/23/2007          |
| 30015306030000  | COG OPERATING LLC     | TENNECO STATE           | 1      | 3/25/1999         | 3/7/2006           |
| 30015308610000  | COG OPERATING LLC     | TENNECO STATE           | 2      | 12/15/1999        | 8/18/2005          |
| 30015314890000  | COG OPERATING LLC     | TENNECO STATE           | 3      | 12/5/2000         | 8/18/2005          |
| 30015322420000  | COG OPERATING LLC     | TENNECO STATE           | 4      | 4/5/2002          | 8/18/2005          |
| 30015030130000  | DRLG                  | HUMBLE-STATE            | 1      | 8/1/1973          | 8/15/2005          |
|                 | KINCAID & WATSON      | HUMBLE-STATE            | 5      | 8/1/1973          | 8/15/2005          |
| 30015030150000  | DRLG                  | EMPIRE 20 STATE         | 1      | 2/1/1999          | 8/17/2005          |
| 30015271350001  | MEWBURNE OIL CO       | EMPIRE 20 STATE         | 2      | 7/26/2000         | 8/18/2005          |
| 30015312680000  | MEWBURNE OIL CO       | EMPIRE 20 STATE         | 3      | 7/26/2000         | 8/18/2005          |
| 30015312690000  | MEWBURNE OIL CO       | EMPIRE 20 STATE         | 4      | 10/23/2007        | 9/23/2009          |
| 300153358130000 | MEWBURNE OIL CO       | EMPIRE 20 STATE         | 5      | 10/23/2007        | 9/23/2009          |
| 30015250770001  | MEWBURNE OIL CO       | NEW MEXICO EO STATE C   | WD-1   | 8/14/2000         | 8/16/2005          |
| 30015308130000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 7      | 5/25/1999         | 8/18/2005          |
| 30015307070000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 8      | 5/25/1999         | 8/18/2005          |
| 30015309270000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 11     | 12/23/1999        | 8/18/2005          |
| 30015309280000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 12     | 12/23/1999        | 8/18/2005          |
| 30015309290000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 13     | 12/23/1999        | 8/18/2005          |
| 30015323560000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 23     | 4/10/2002         | 8/18/2005          |
| 30015323590000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 24     | 4/10/2002         | 8/18/2005          |
| 30015324090000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 25     | 10/9/2002         | 8/18/2005          |
| 30015324310000  | COG OPERATING LLC     | WHITE STAR FEDERAL      | 26     | 10/9/2002         | 8/18/2005          |
|                 | LEGACY RESERVES       | EMPIRE DEEP 29' FEDERAL | 1      | 5/2/2001          | 2/12/2009          |
| 30015316130000  | OPERATING             | EMPIRE DEEP 29' FEDERAL | 4      | 6/22/1999         | 8/18/2005          |
| 30015305090000  | COG OPERATING LLC     | GOLD STAR FEDERAL       | 5      | 3/8/2001          | 8/27/2007          |
| 30015317030000  | COG OPERATING LLC     | GOLD STAR FEDERAL       | 6      | 4/18/2002         | 8/18/2005          |

# Cimerex Energy Co. of Colorado

Lease & Well #  
API# 30-015-34120

Elevation GL - 3655

CP State Com #1

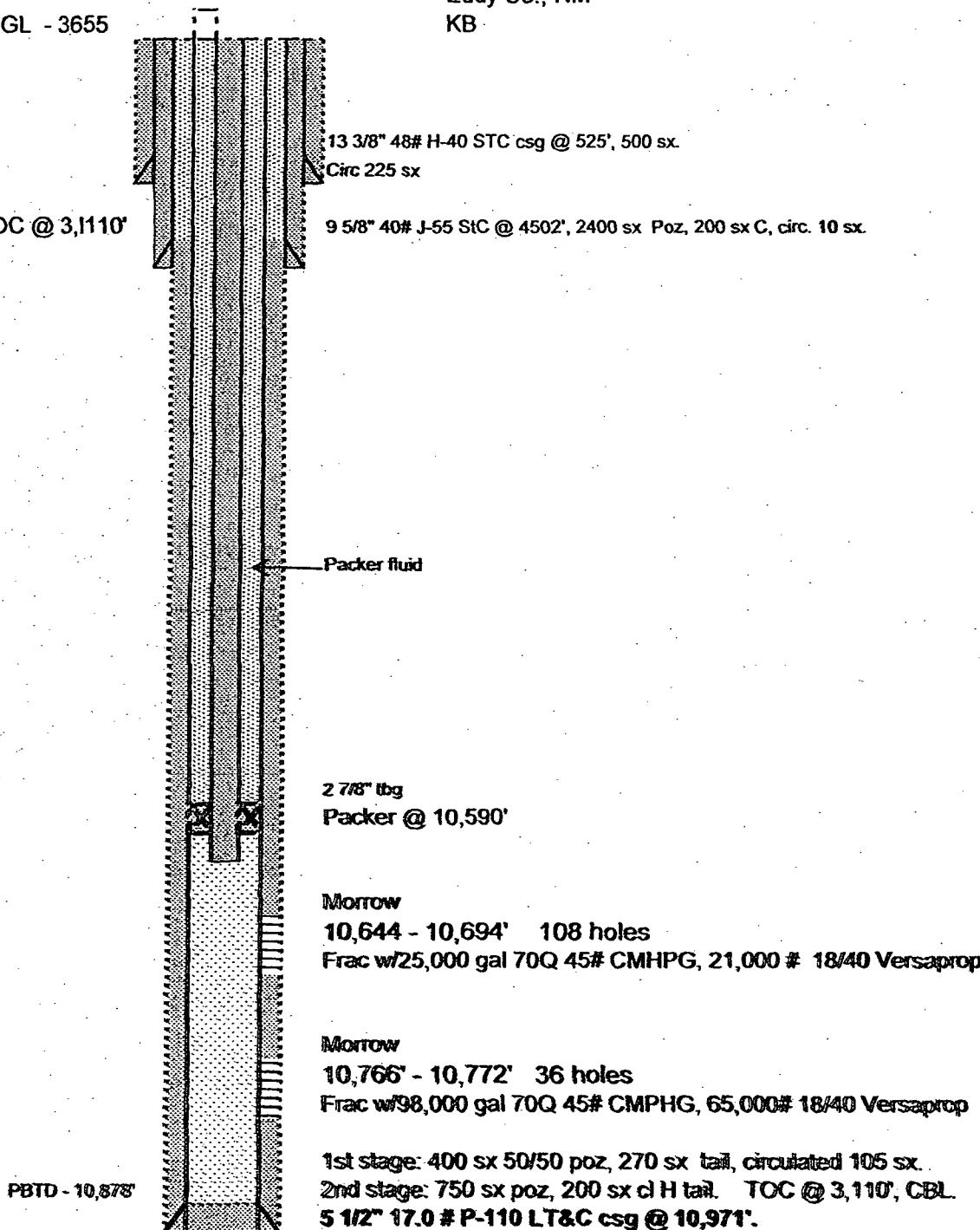
Active

Sec 19P T 17S R 29E, 1310 FSL & 660 FEL

Eddy Co., NM

KB

TOC @ 3,110'



**Clayton Williams  
Energy Incorporated**  
ACTIVE

**Lease & Well #** Phillips 19 Federal #2

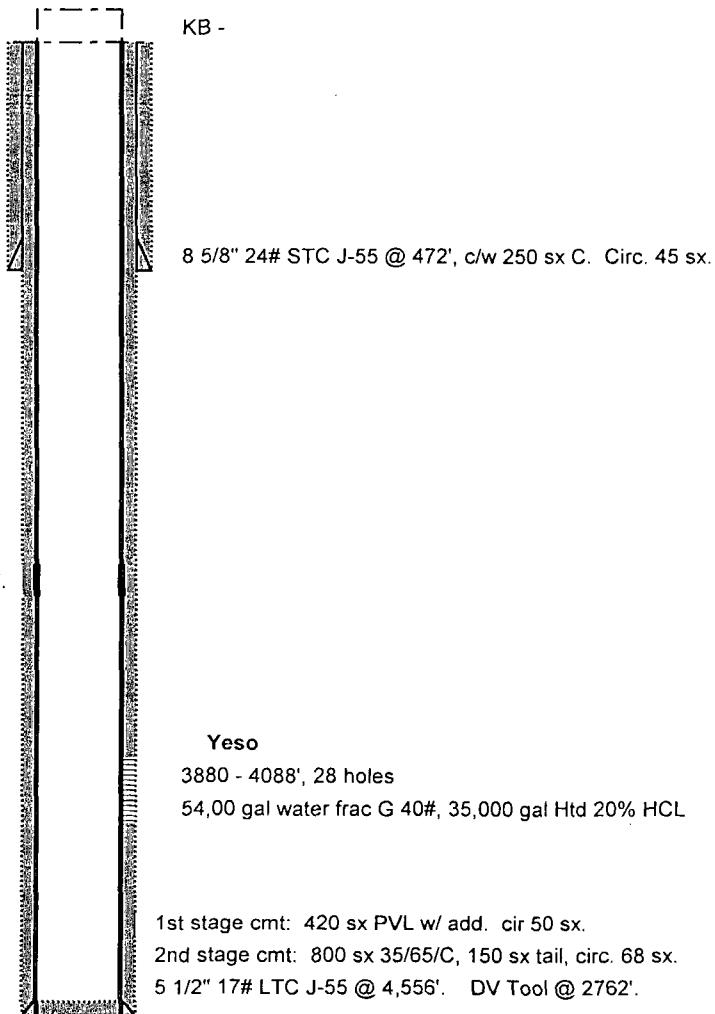
APE# 3001531225

Spud - 9/17/2000

Elevation - 3656

Eddy Co., NM

Sec 19, T17S, R29E, 2310 FNL & 330 FEL



**Clayton Williams  
Energy Incorporated**

ACTIVE

Lease & Well # Phillips 19 Federal #4

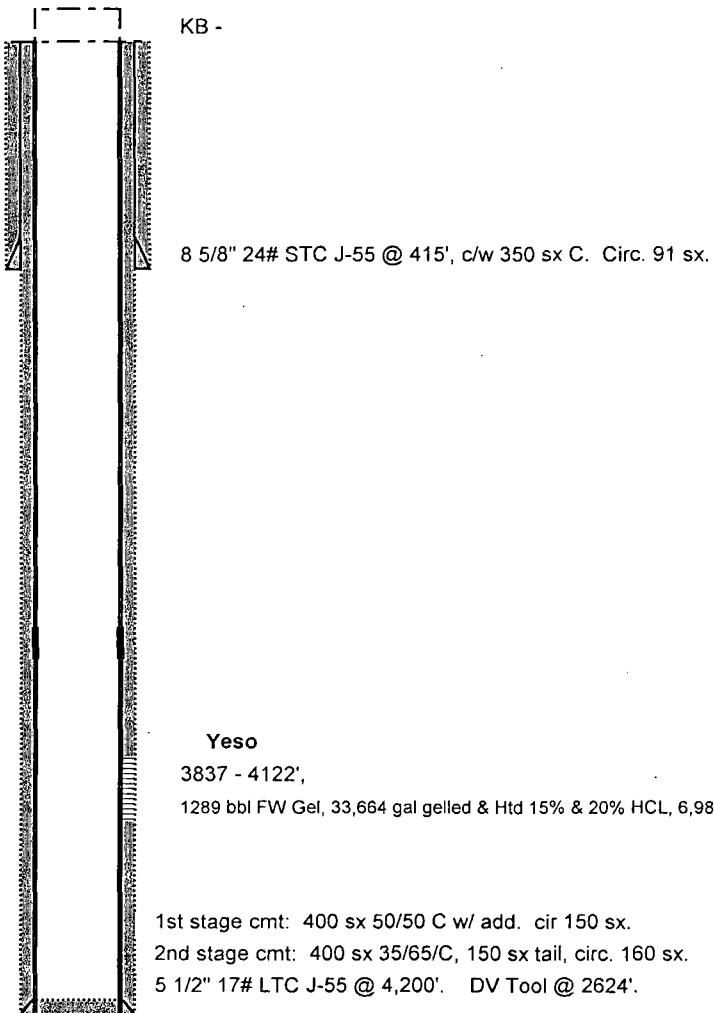
AFE# 3001533502

Spud - 10/27/2004

Elevation - 3637

Eddy Co., NM

Sec 19, T17S, R29E, 2310 FNL & 990 FEL



# COG Operating LLC

Active

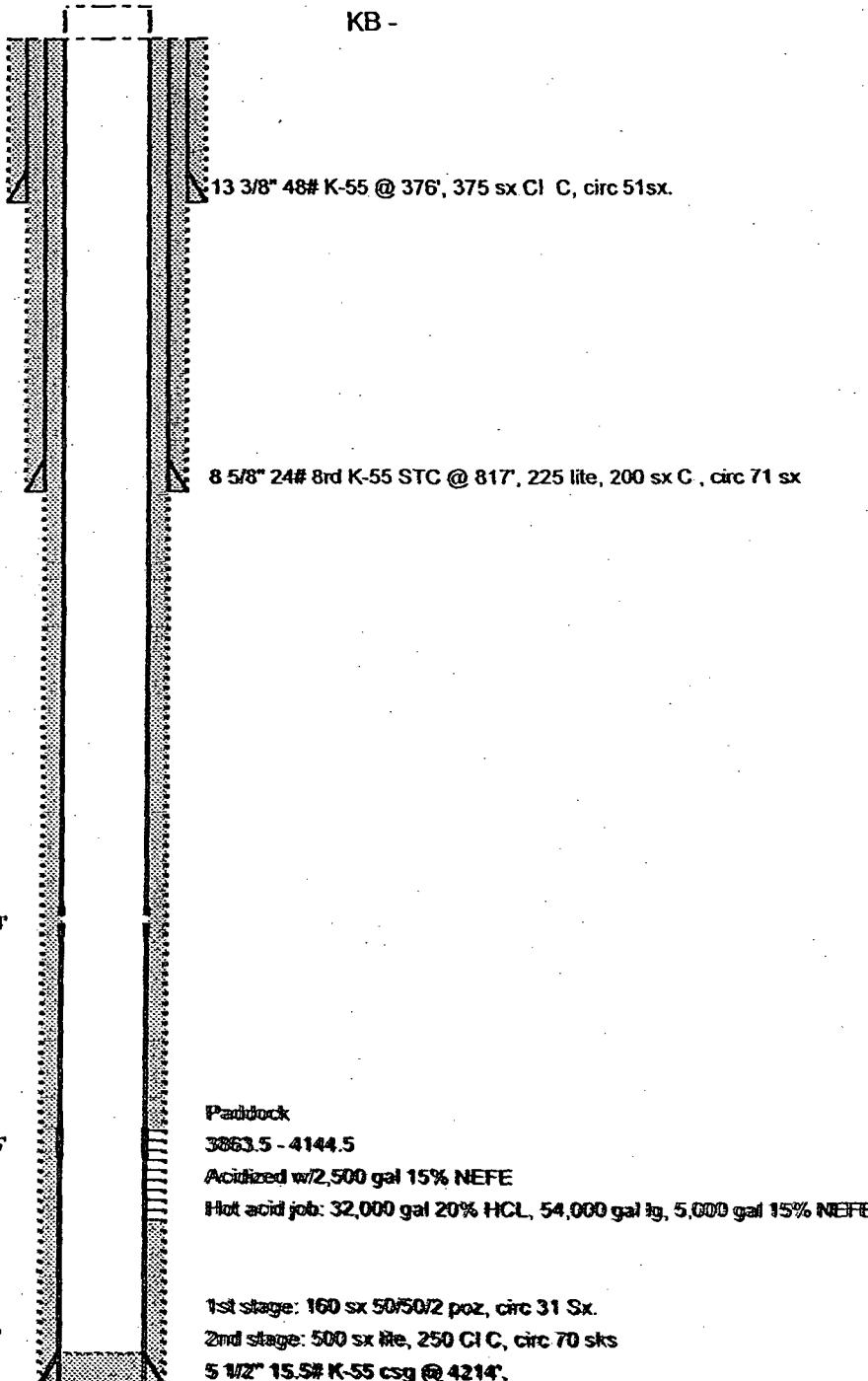
Lease & Well #  
API# 30-15-30915

State S-19 # 11  
P-19-17S-29E

SPUD- 6/26/00

Elevation - 3641'

KB -



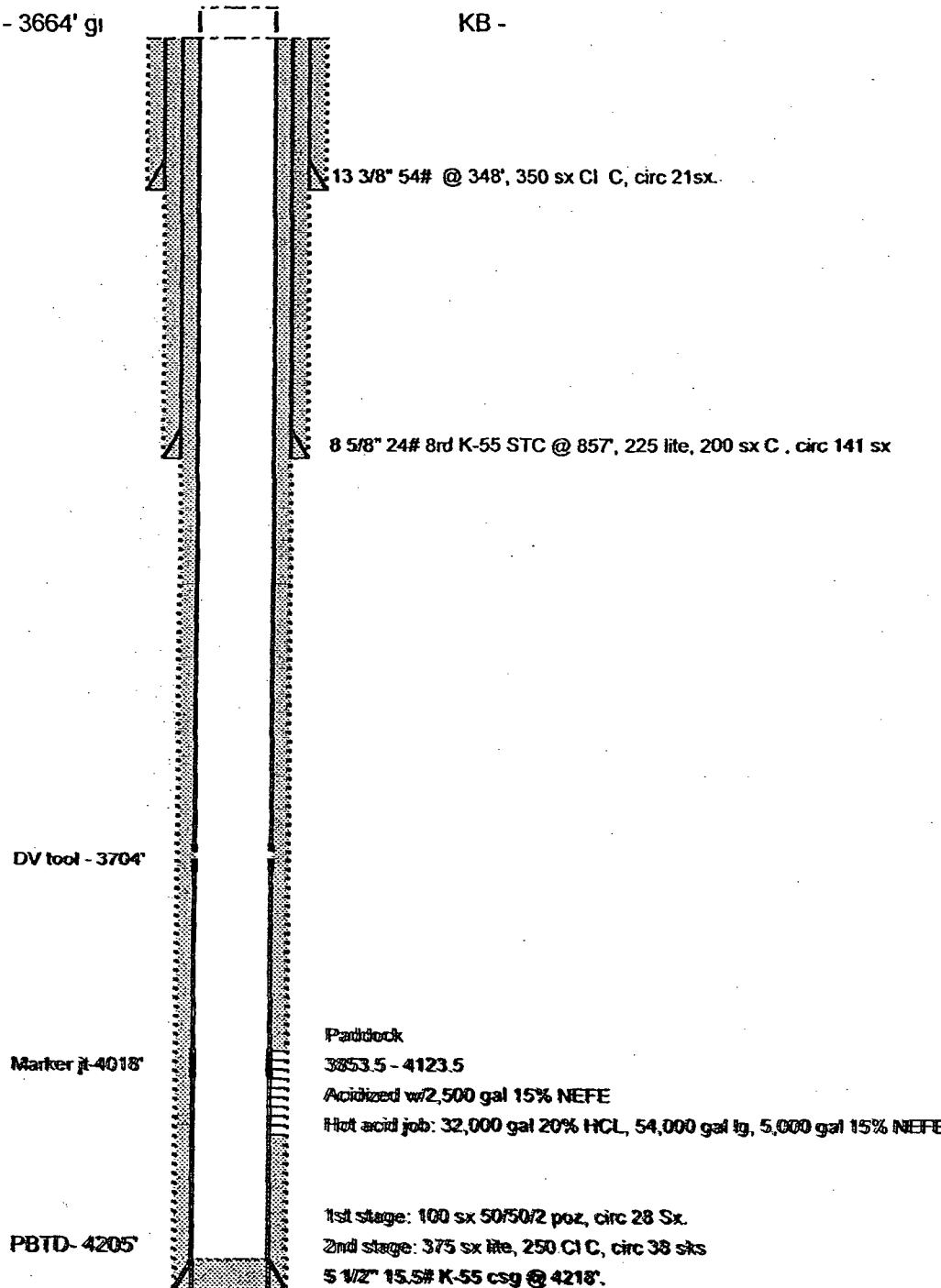
# COG Operating LLC

Active

Lease & Well # State S-19 # 12  
API# 30-015-30729 P-19-17S-29E

SPUD- 11/29/99

Elevation - 3664' gl



# COG Operating LLC

Lease & Well #  
API# 30-015-30916

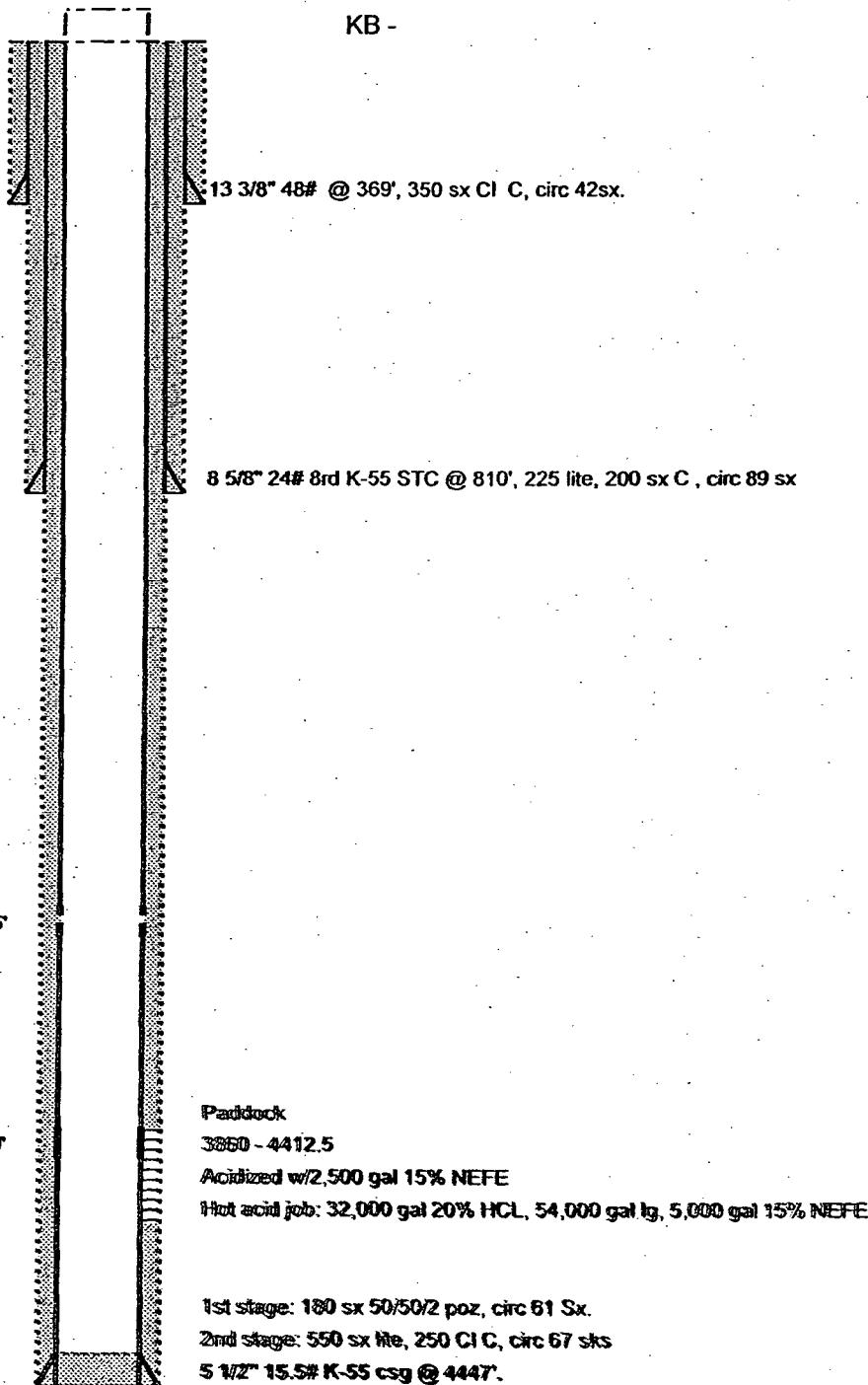
State S-19 # 13  
I-19-17S-29E

Active

SPUD- 6/11/00

Elevation - 3659' gl

KB -



# COG Operating LLC

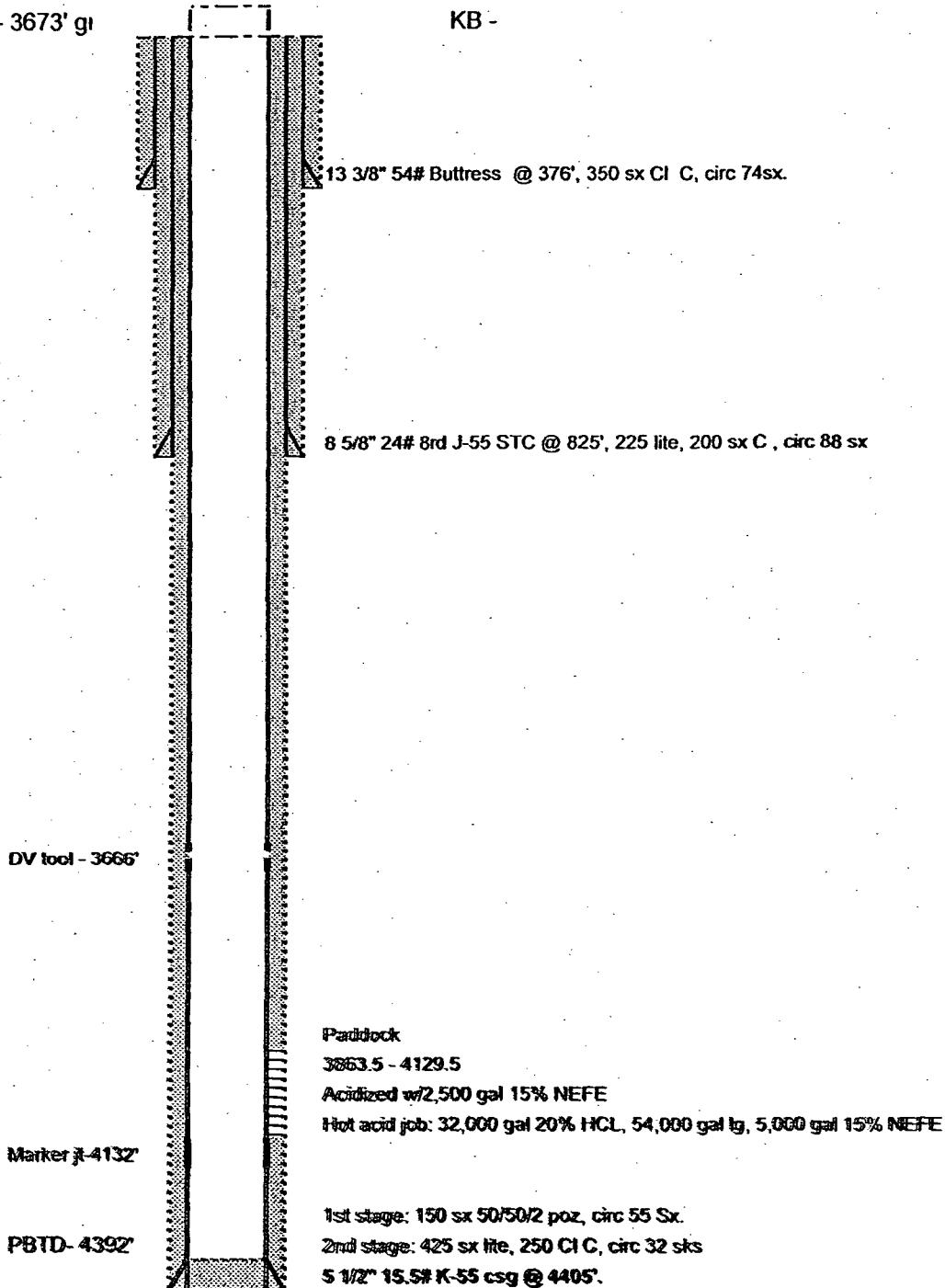
Active

Lease & Well # State S-19 # 14  
API# 30-015-30944 I-19-17S-29E

SPUD- 3/24/00

Elevation - 3673' gl

KB -



# COG Operating LLC

Lease & Well #  
API# 30-015-30917

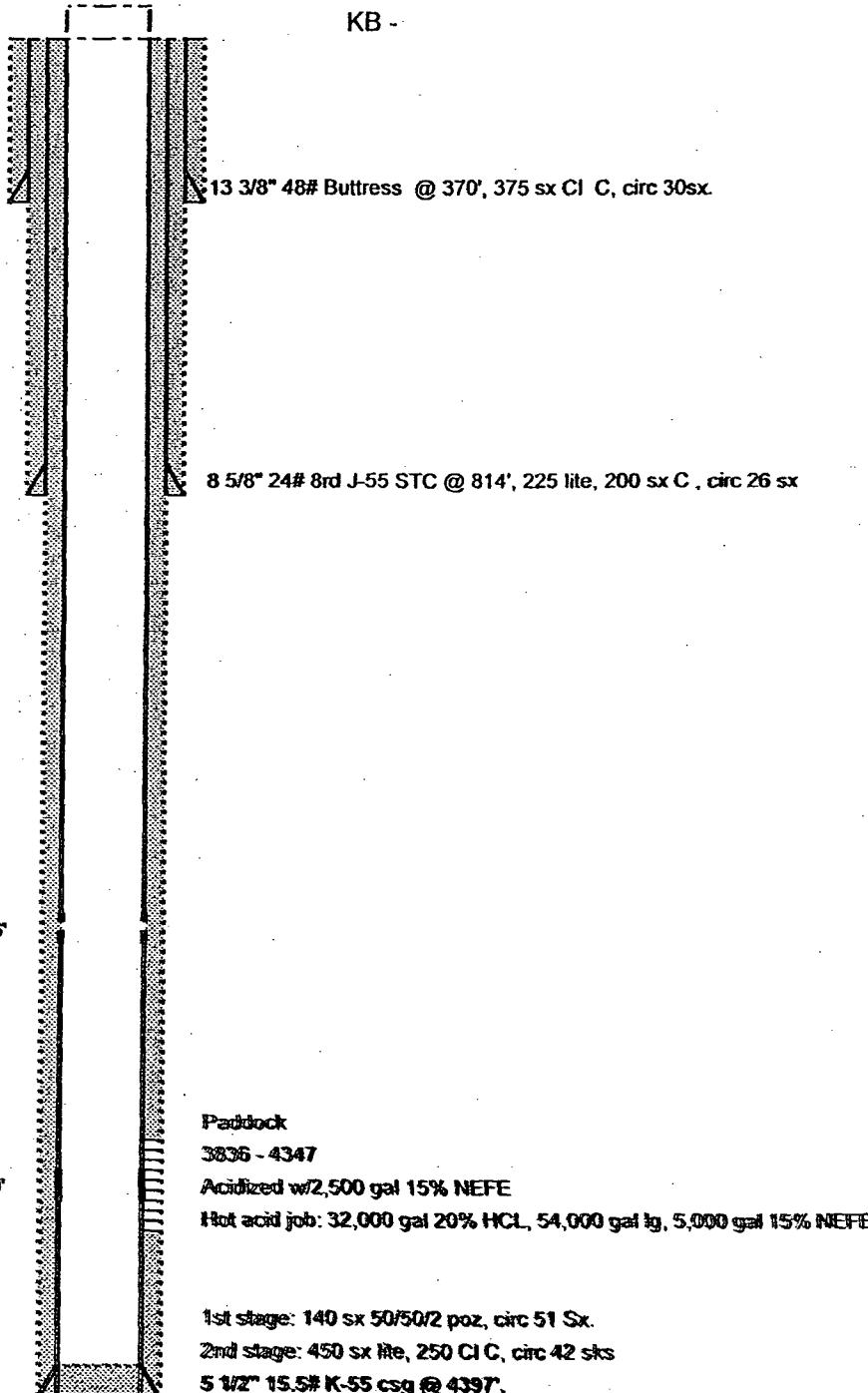
State S-19 # 15  
J-19-17S-29E

Active

SPUD- 2/19/00

Elevation - 3669' gi

KB -



# COG Operating LLC

Lease & Well #  
API# 30-015-32062

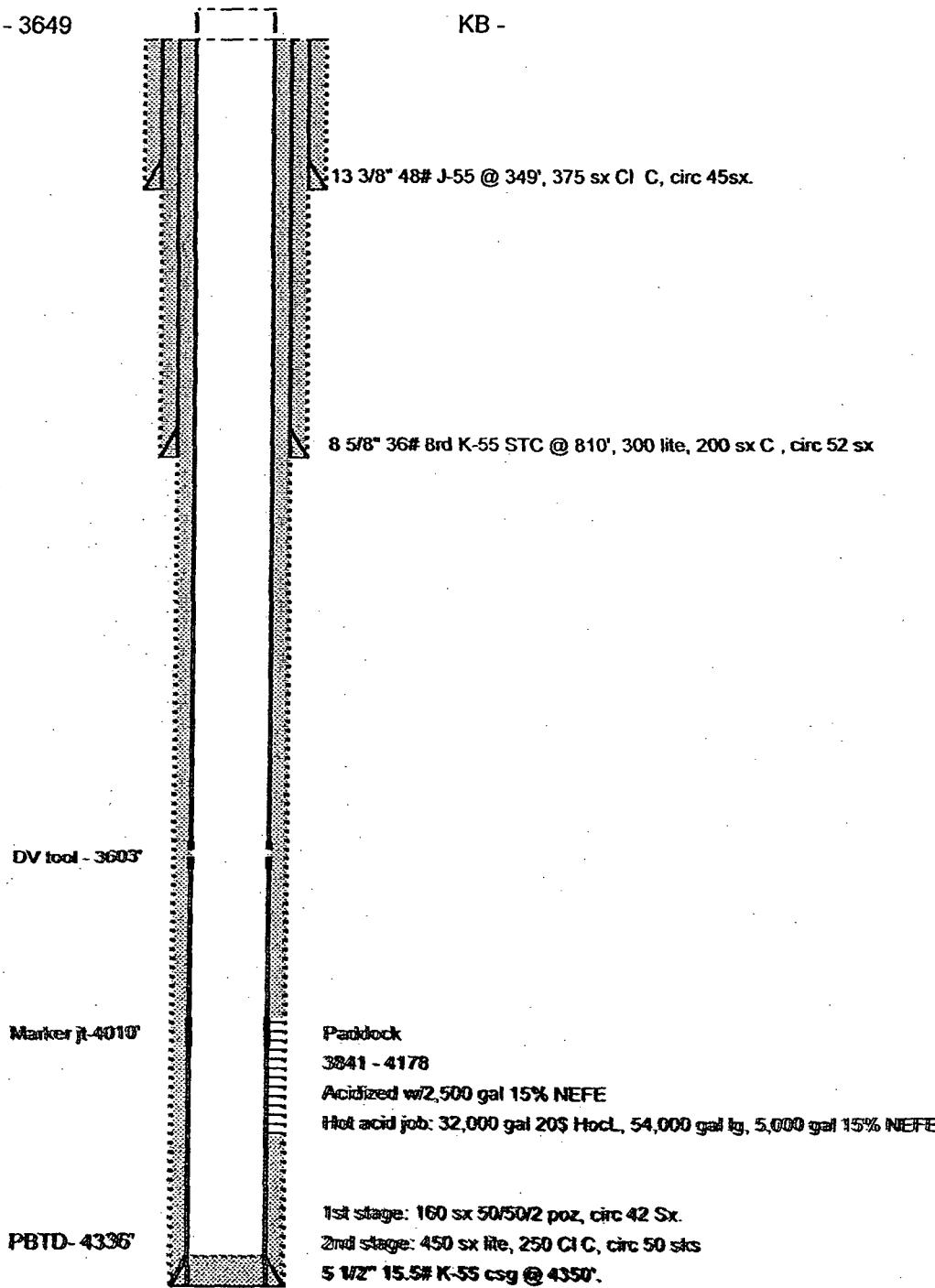
State S-19 # 21  
P-19-17S-29E

Active

SPUD- 2/23/01

Elevation - 3649

KB -



# COG Operating LLC

Lease & Well #  
API# 30-015-32226

State S-19 # 22  
I-19-17S-29E

Active

SPUD- 5/25/02

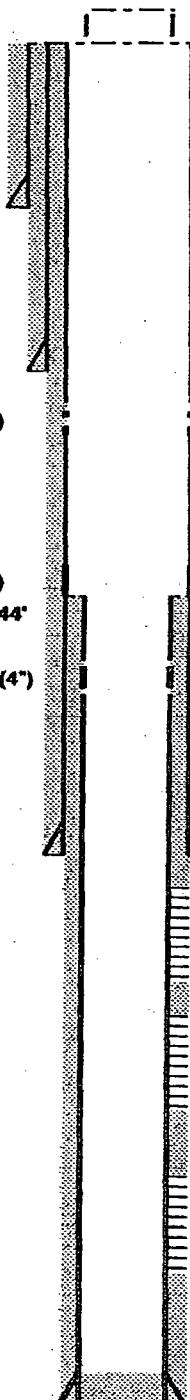
Elevation - 3660

DV tool - 3711'(5 1/2")

Marker jt-4110'(5 1/2")  
4" casing backed off @ 4144'

DV TOOL - 4178' (4")

PBTD - 5324'



KB -

13 3/8" 48# J-55 @ 336', 325 sx Cl C, circ 60sx.

8 5/8" 36# 8rd K-55 STC @ 815', 275 lite, 200 sx C , circ 702 sx

Paddock

3843 - 4169

Acidized w/2,000 gal 15% NEFE

Hot acid job: 32,000 gal 20\$ HocL, 54,000 gal lg, 5,000 gal 15% NEFE

Squeezed off with 440 sx cmt.

1st stage: 160 sx 50/50/2 poz, circ 40 Sx.

2nd stage: 550 sx lite, 250 Cl C, circ 100 sks

5 1/2" 15.5# K-55 csg @ 4399'.

Blinebry

4470-4670

Acidized w/2500 gal 15% NEFE

Fraced w/69,395 gal Lightning, 107,773 # sd

4740-4940

Acidized w/2500 gal 15% NEFE

Fraced w/59,686 gal Lightning, 79,538 # sd

5010-5210

Acidized w/2500 gal 15% NEFE

Fraced w/44,226 gal Lightning, 38,648 # sd

Cmt w/100 sx C, circ 25 sx off DV tool @ 4178'.

4" 11.3# NL-80 ULTFJ csg, @ 5382'

# COG Operating LLC

Lease & Well #  
API# 30-015-34825

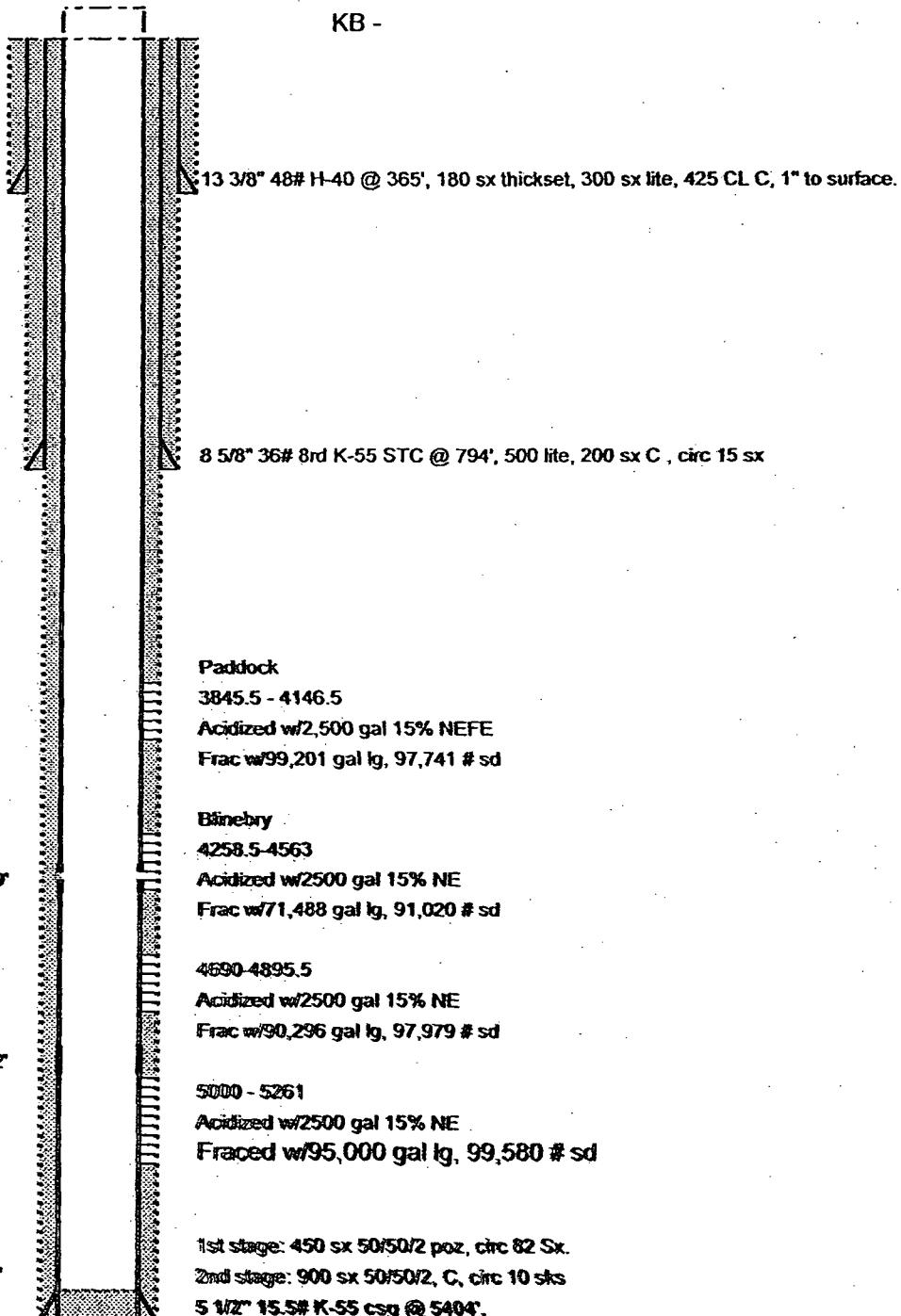
State S-19 # 23  
P-19-17S-29E

Active

SPUD- 8/7/06

Elevation - 3655

KB -



# COG Operating LLC

Lease & Well #  
API# 30-015-34826

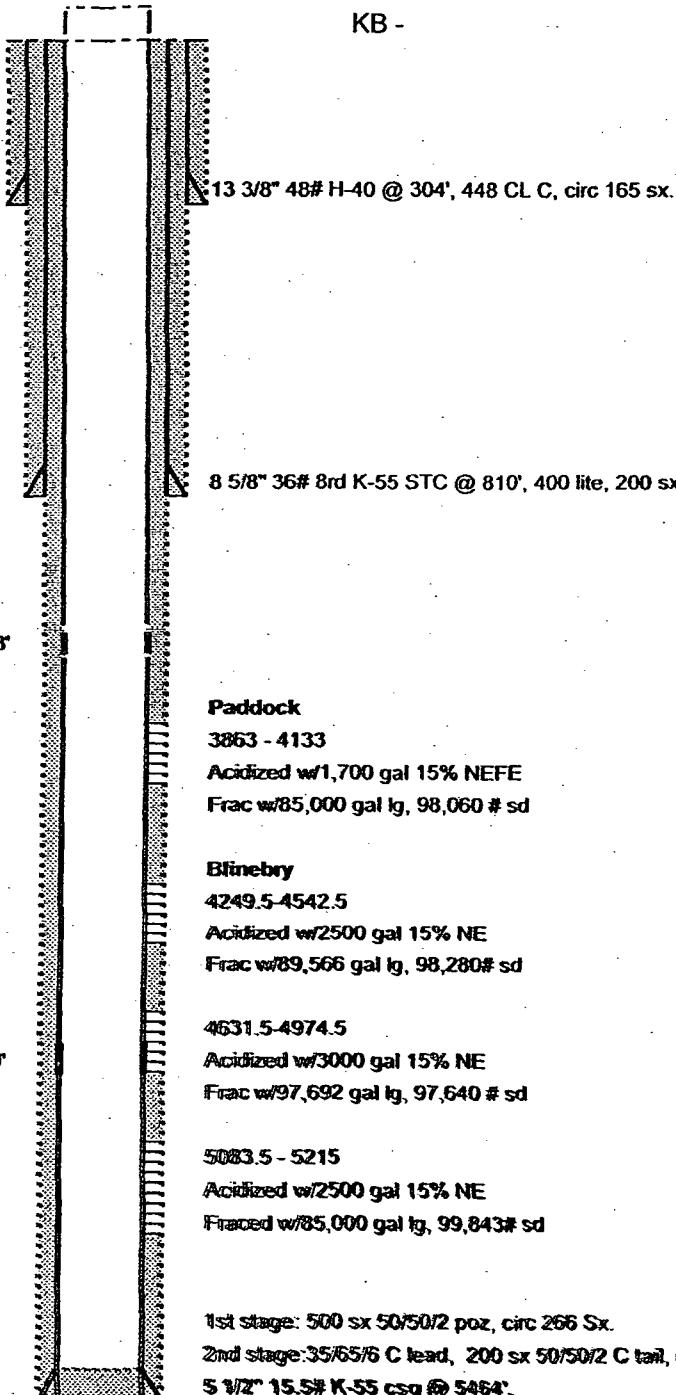
State S-19 # 24  
I-19-17S-29E

Active

SPUD- 9/4/06

Elevation - 3662

KB -



# COG Operating LLC

Active

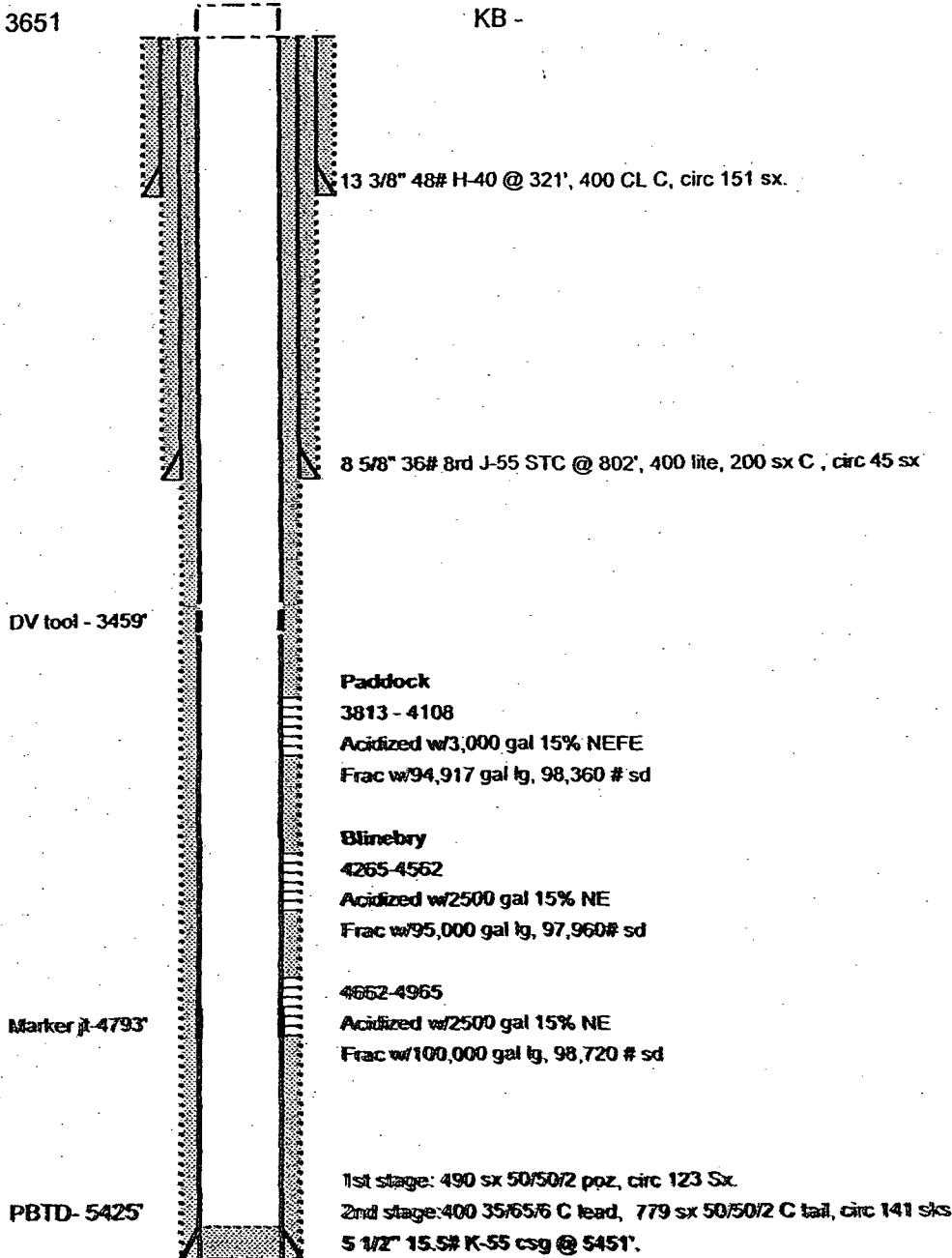
Lease & Well #  
API# 30-015-34827

State S-19 # 25  
O-19-17S-29E

SPUD- 6/29/06

Elevation - 3651

KB -



# COG Operating LLC

Lease & Well #  
API# 30-015-34828

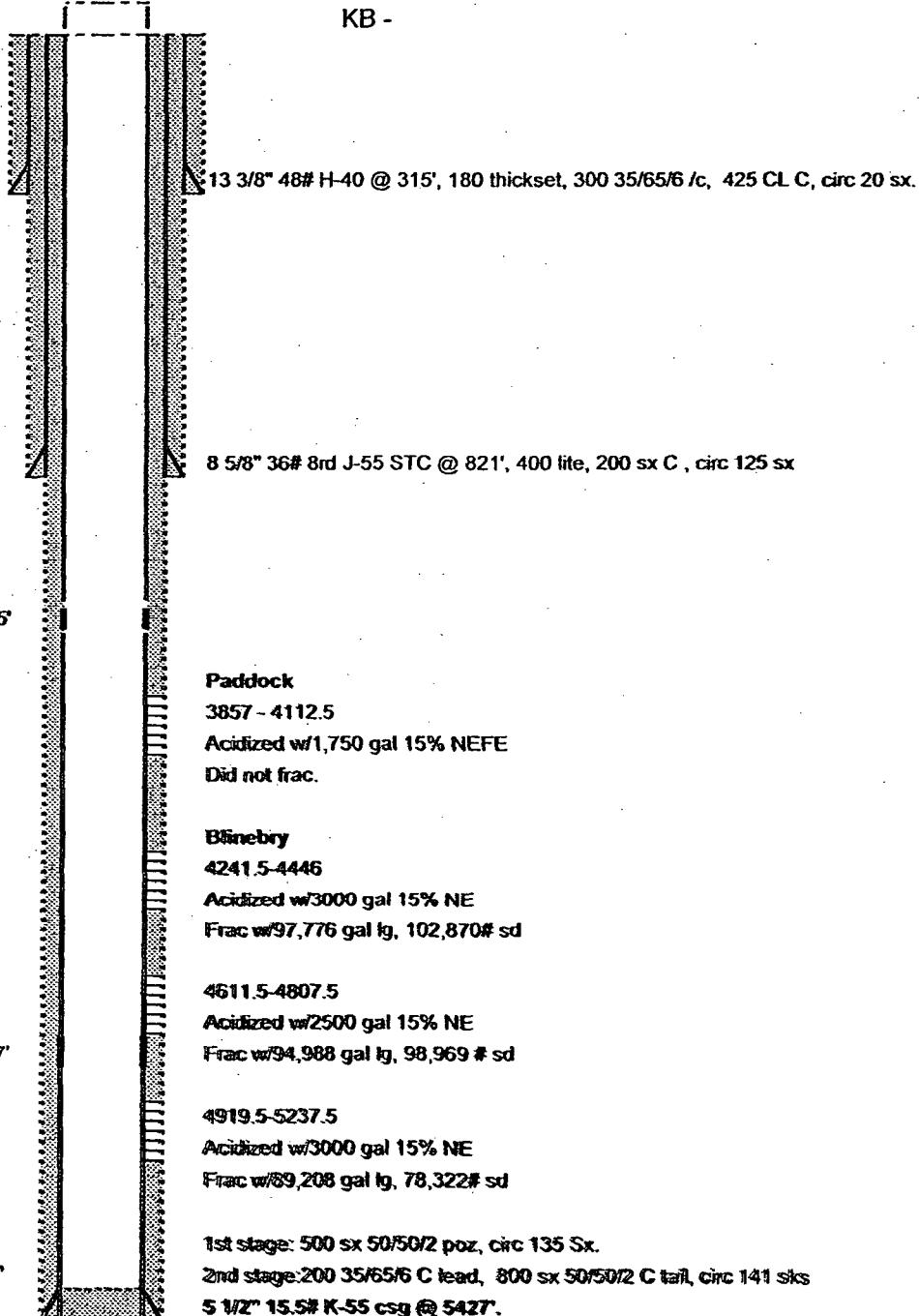
State S-19 # 26  
J-19-17S-29E

Active

SPUD- 8/20/06

Elevation - 3676

KB -



**Clayton Williams  
Energy Incorporated**

ACTIVE

Lease & Well # State 20 B #8

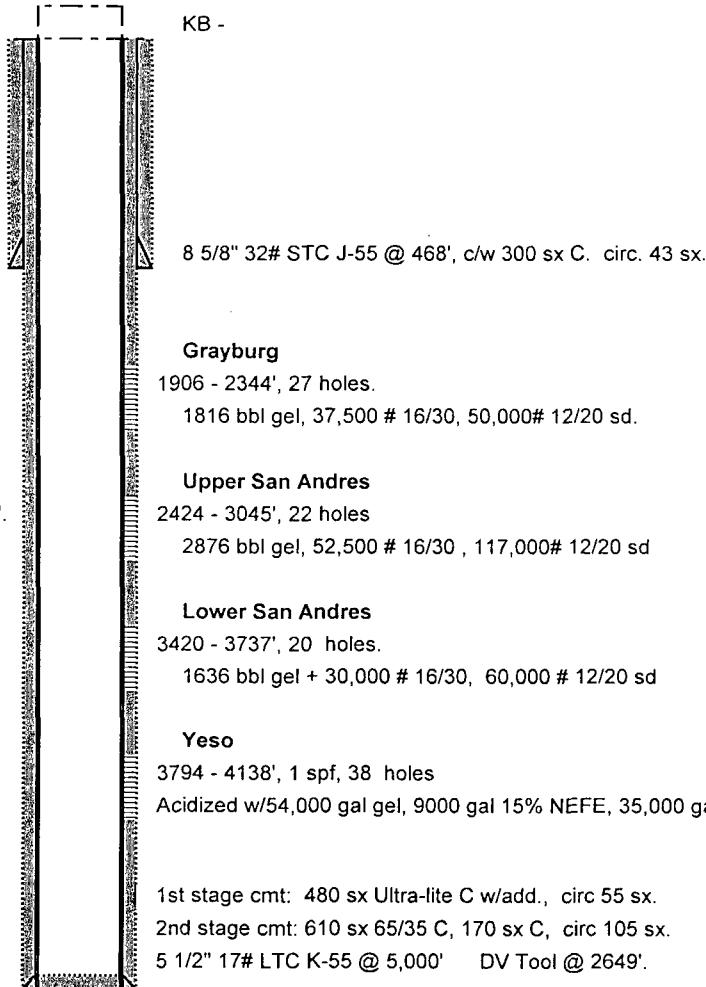
API# 3001531053

Spud - 4/20/2000

Elevation - 3613

Eddy Co., NM

Sec 20, T17S, R29E, 1650 FNL & 3210 FEL



**Clayton Williams  
Energy Incorporated**  
ACTIVE

**Lease & Well #** State 20 B #9

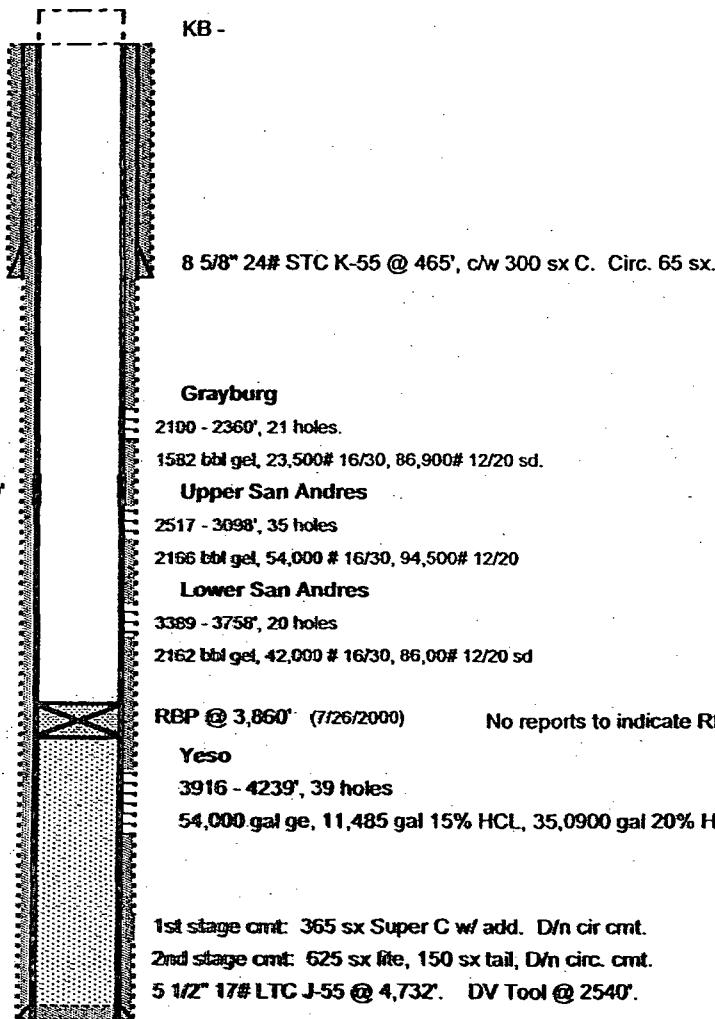
API# 3001530971

Spud - 3/6/2000

Elevation - 3612

Eddy Co., NM

Sec 20, T17S, R29E, 330 FSL & 3210 FEL



**Clayton Williams  
Energy Incorporated**  
ACTIVE

Lease & Well # State 20 B #10

API#3001531054

Spud - 5/16/2000

Elevation - 3609

Eddy Co., NM

Sec 20, T17S, R29E, 990 FSL & 1650 FEL

DV Tool @ 2641'

PBTD @ 4,910'

KB -

8 5/8" 24# STC J-55 @ 474', c/w 300 sx C. Circ. 52 sx.

**Grayburg**

1912 - 2339', 24 holes.

2143 bbl gel, 37,500# 16/30, 90,000# 12/20 sd.

**Upper San Andres**

2446 - 3075', 30 holes

2391 bbl gel, 53,500 # 16/30, 123,000# 12/20

**Lower San Andres**

3518 - 3738', 20 holes

1286 bbl gel, 18,500 # 16/390, 51,500# 12/20 sd.

RBP @ 3,880' (7/26/2000)

**Yeso**

3905 - 4210', 35 holes

1785 bbl WF G, 714 bbl 20% heated HCL, 714 bbl 20%, 119 bbl 15% HCL.

1st stage cmt: 455 sx Ultra Lite C w/ add. cir 106 sx.

2nd stage cmt: 570 sx lite, 150 sx tail, circ. 55 sx.

5 1/2" 17# LTC K-55 @ 4,989'. DV Tool @ 2641'.

**Clayton Williams  
Energy Incorporated**  
ACTIVE

Lease & Well # State 20 B #11

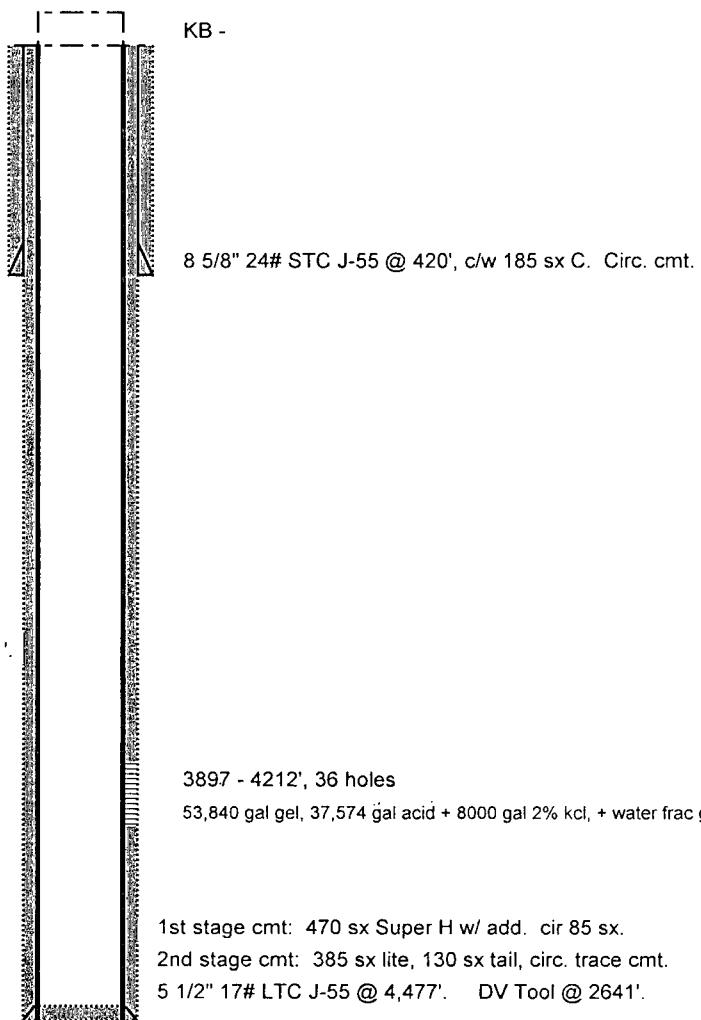
API# 3001532695

Spud - 4/10/2003

Elevation - 3609

Eddy Co., NM

Sec 20, T17S, R29E, 880 FSL & 2115 FEL



**Clayton Williams  
Energy Incorporated**

ACTIVE

Lease & Well # State 20 B #12

API# 3001532687

Spud - 3/28/2003

Elevation - 3608

Eddy Co., NM

Sec 20, T17S, R29E, 380 FSL & 1650 FEL

KB -

8 5/8" 24# STC J-55 @ 398', c/w 200 sx C. Circ. cmt.

DV Tool @ 2641'

Yeso

3823 - 4185', 37 holes

95,000 gal treated H2O 40#, +20% & 15% gell & heated HCL

1st stage cmt: 475 sx Super H w/ add. cir 62 sx.

2nd stage cmt: 1250 sx Innerfill C, 130 sx tail, circ. 124 sx.

PBTD @ 4,496' 5 1/2" 17# LTC J-55 @ 4,496'. DV Tool @ 2641'.

**Clayton Williams  
Energy Incorporated**

ACTIVE

**Lease & Well #** State 20 B #17

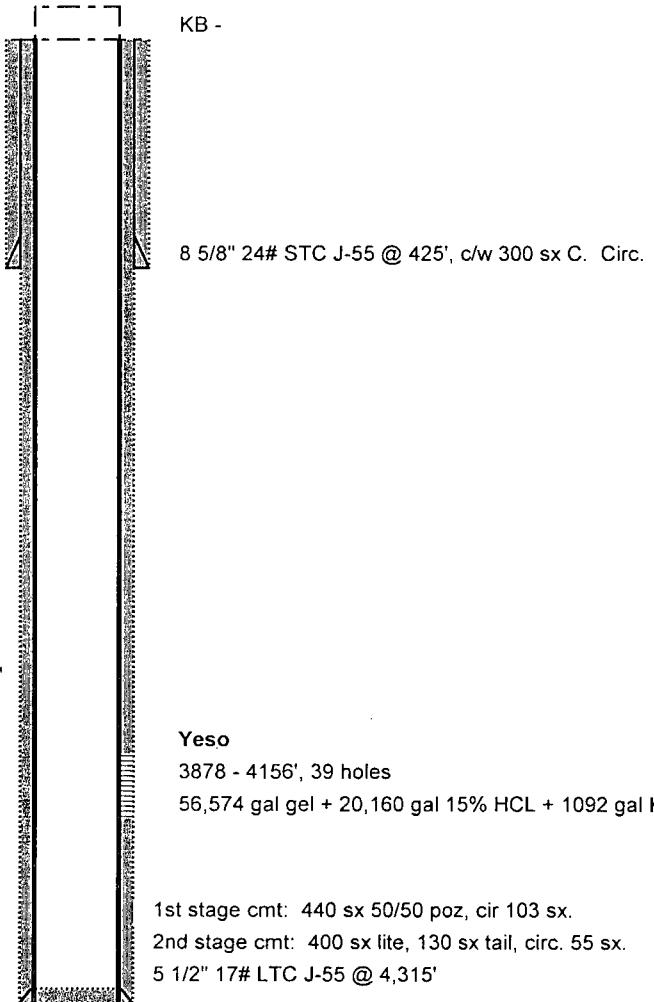
API# 3001533070

Spud - 11/7/2003

Elevation - 3614

Eddy Co., NM

Sec 20, T17S, R29E, 2310 FNL & 2310 FEL



**Clayton Williams  
Energy Incorporated  
ACTIVE**

Lease & Well # State 20E #3

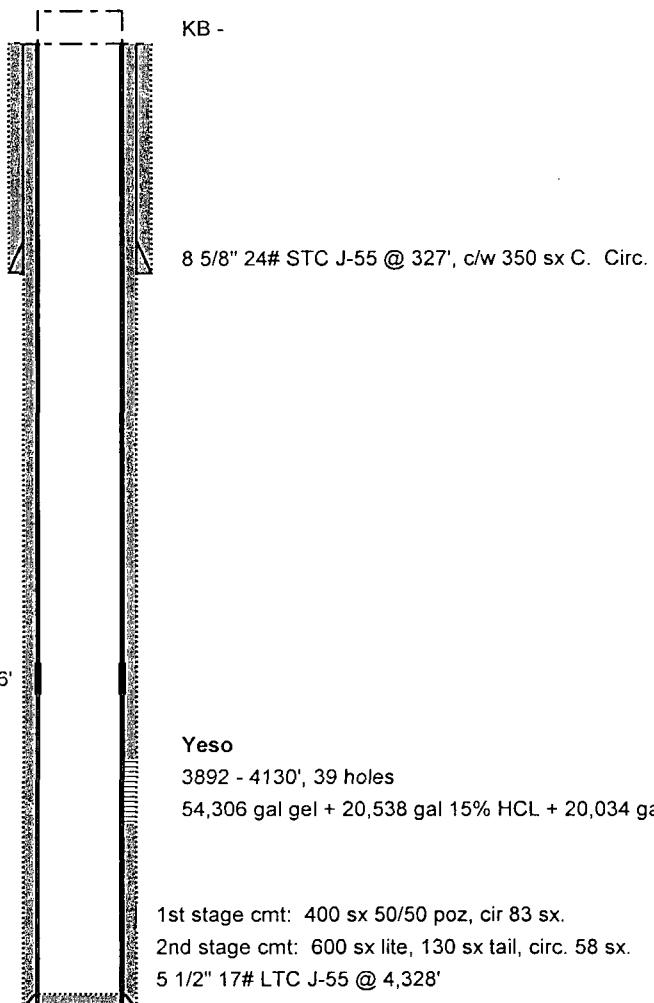
API # 30-015-33207

Spud - 2/17/2004

Elevation - 3626

Eddy Co., NM

Sec 20, T17S, R29E, 925 FNL & 1700 FWL



Active

## COG Operating LLC

Lease & Well # Mesquite State # 1  
API# 30-15-30037 I-20-17S-29E

SPUD - 8/9/99

Elevation - 3646' GL

KB -

13 3/8" 48 # K-55 ST & C @ 773', 450 sx 35/65/6, 200 sx CL C cmt, circ 120 sx.

9 5/8" 36 # 8rd J-55 STC @ 2208', 400 sx 35/65/6, 200 sx CL C, circ 12 sx

5 1/2" DV Tool @ 3740'

Paddock

3874-4156.5 69 holes

Acidized w/2,500 gal 15% NEFE, Hot acid job: 32,000/54,000/5,000

Squeezed off w/300 sx to deepen.

Top of 4" liner @ 4,200'. (backed off)

4" DV Tool @ 4188'

1st stage: 110 sx CL C, circ 58 sx.

2nd stage: 650 sx 36/65/6, 250 sx 50/50/2, circ 118 sx.

5 1/2" 15/5# J-55 STC @ 4211'.

Blanebry

4390-4490 32 holes

Acidized w/2,500 gal 15% NEFE, frac w/26,000 gal XL, 47,520 # sd

4570-4645 28 holes

Acidized w/2,500 gal 15% NEFE, frac w/30,000 gal XL, 47,957 # sd

5020 - 5220

Acidized w/2,500 gal 15% NEFE, frac w/42,717 gal XL, 44,774 # sd

4" 11.3# L-80 ULTFJ csg @ 5463'. Cmt w/150 sx C + addl. Circ 100 sx off DV.

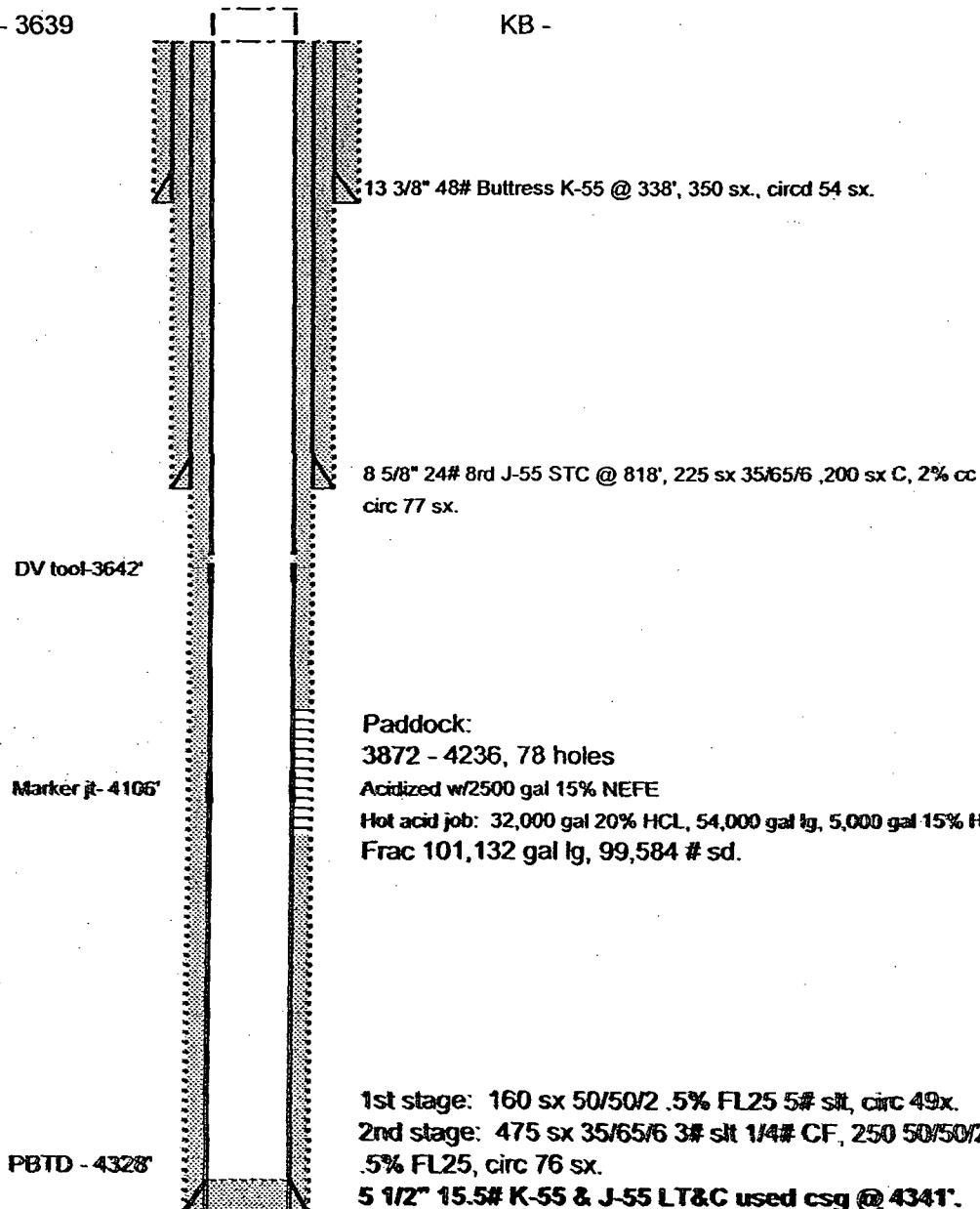
Active

## COG Operating LLC

Lease & Well # Mesquite State #2  
API# 30-015-30912 L-20-17S-29E

SPUD - 3/11/00

Elevation - 3639



# COG Operating LLC

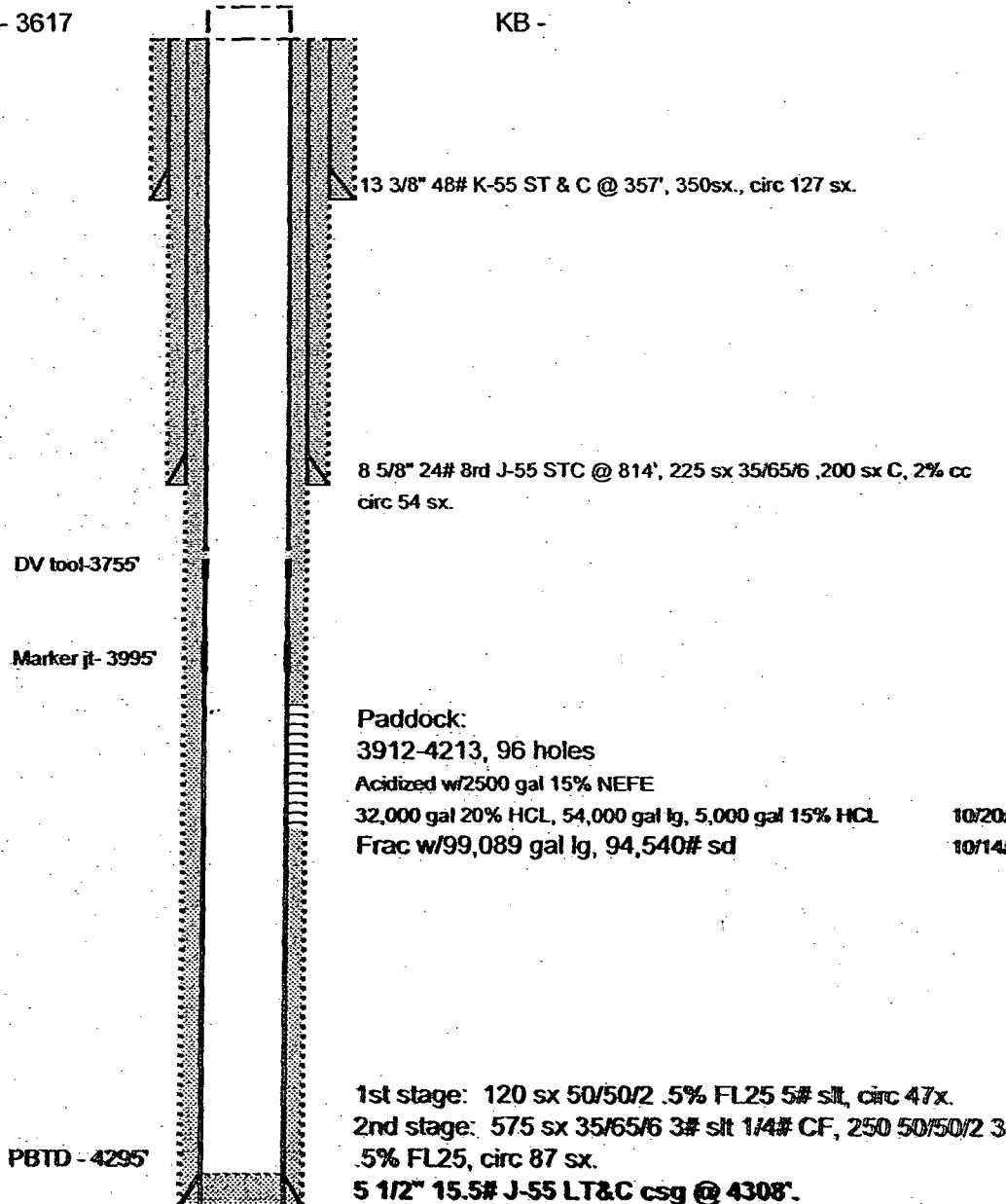
Active

Lease & Well #  
API# 30-015-30726

Mesquite State #3  
N-20-17S-29E

SPUD - 9/22/99

Elevation - 3617



# COG Operating LLC

Active

Lease & Well #  
API# 30-015-30913

Mesquite State #4  
N-20-17S-29E

SPUD - 5/29/00

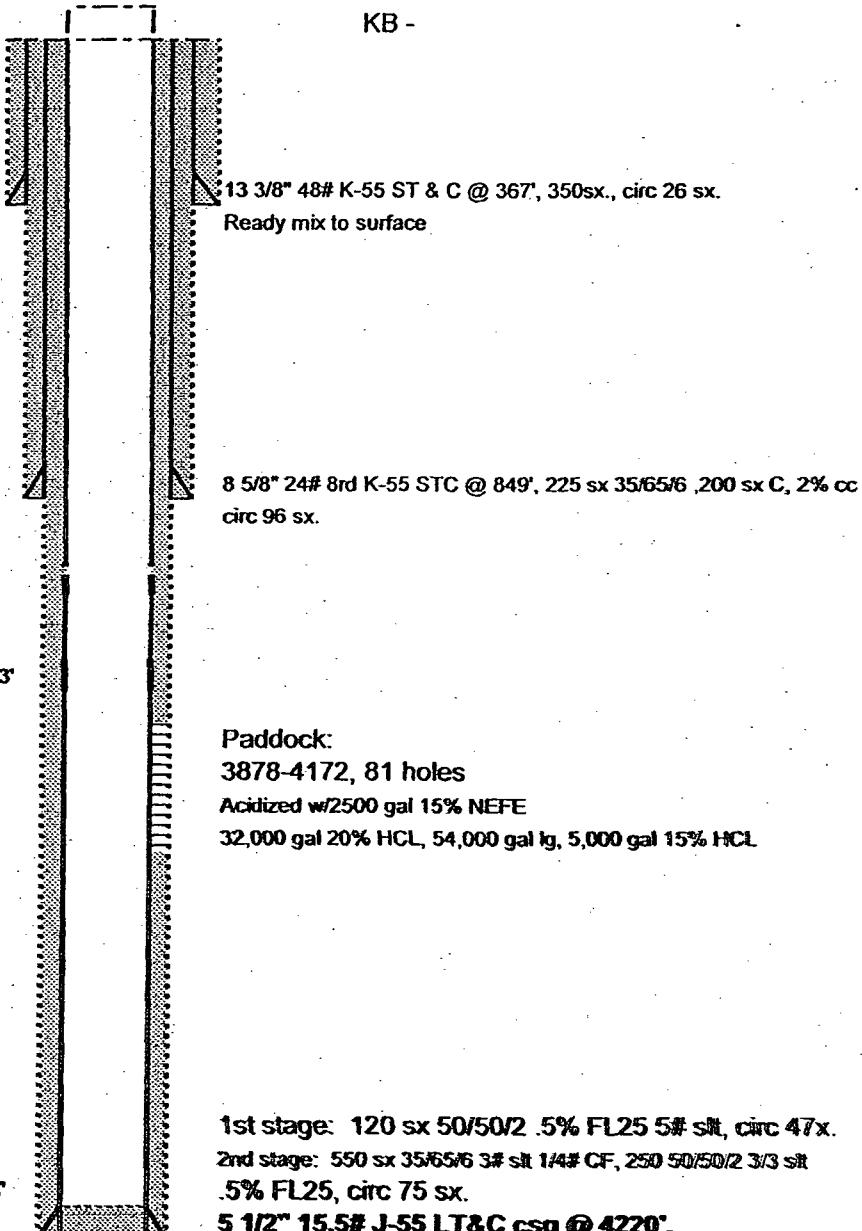
Elevation - 3627

KB -

DV tool-3714'

Marker jt- 4023'

PBTD - 4208'

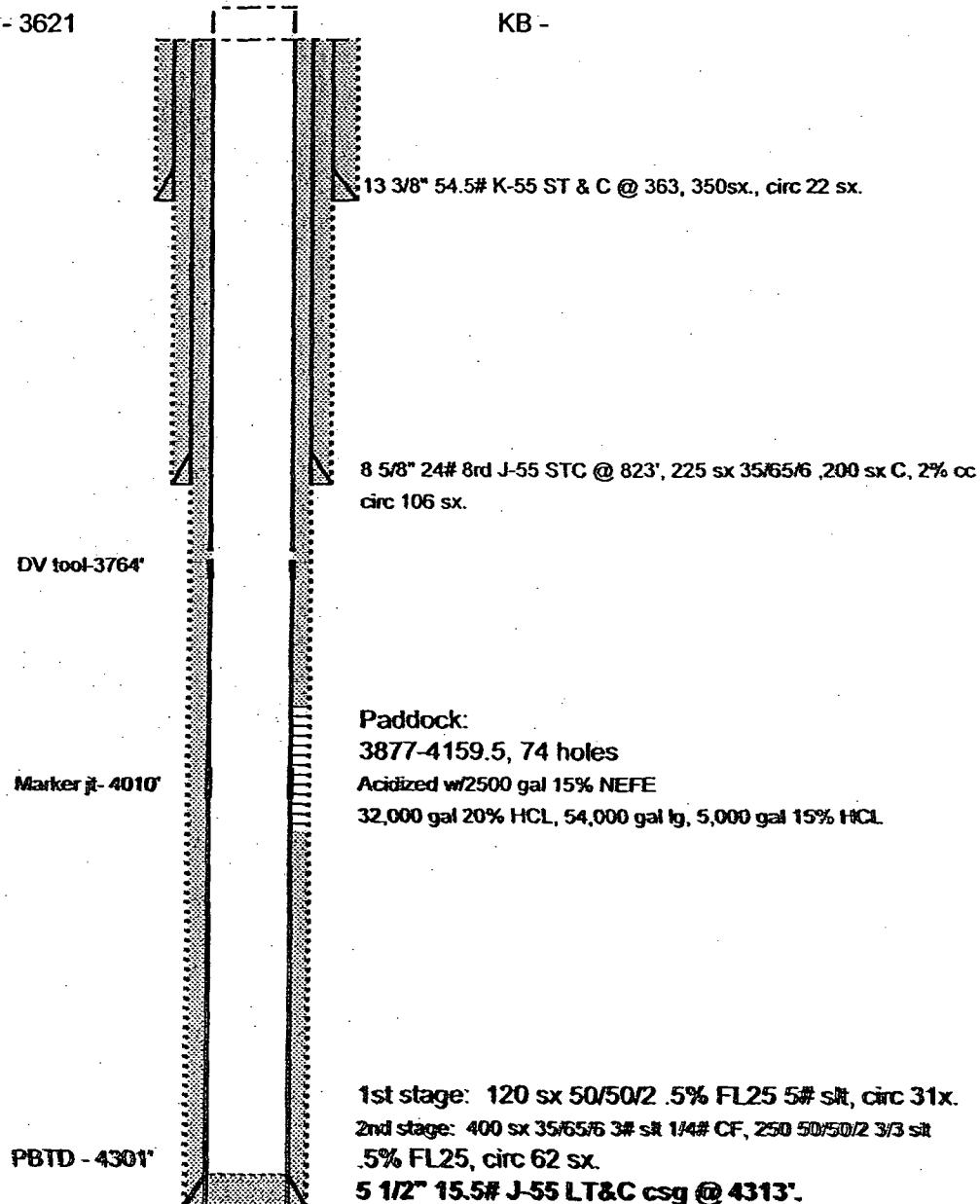


## COG Operating LLC

Lease & Well # Mesquite State #5  
 API# 30-015-30727 K-20-17S-29E

SPUD - 11/16/99

Elevation - 3621



Active

## COG Operating LLC

Lease & Well #  
API# 30-015-30914

Mesquite State #6  
K-20-17S-29E

SPUD - 1/16/00

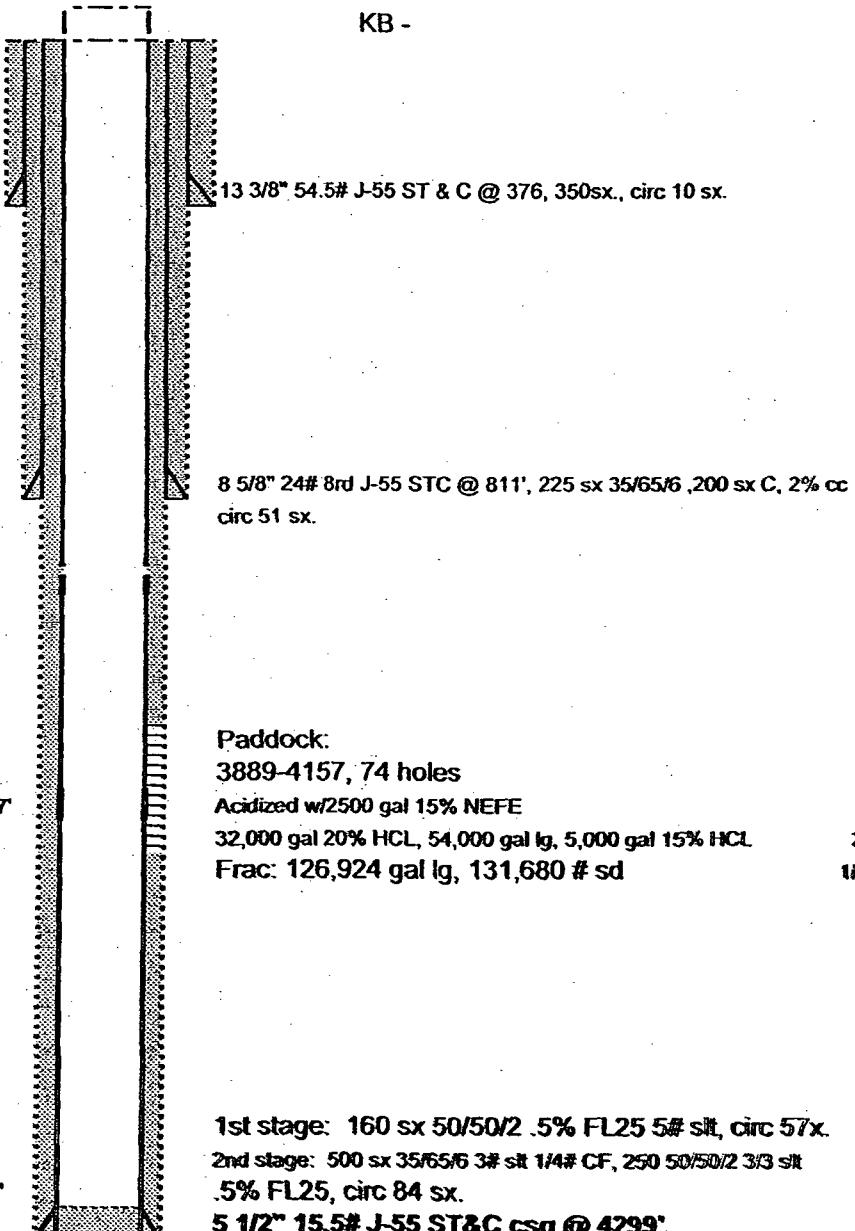
Elevation - 3633

KB -

DV tool-3784'

Marker jt- 4097

PBTD - 4286'



# COG Operating LLC

Lease & Well #  
API# 30-015-30866

Mesquite State #7  
E-20-17S-29E

Active

SPUD - 12/26/99

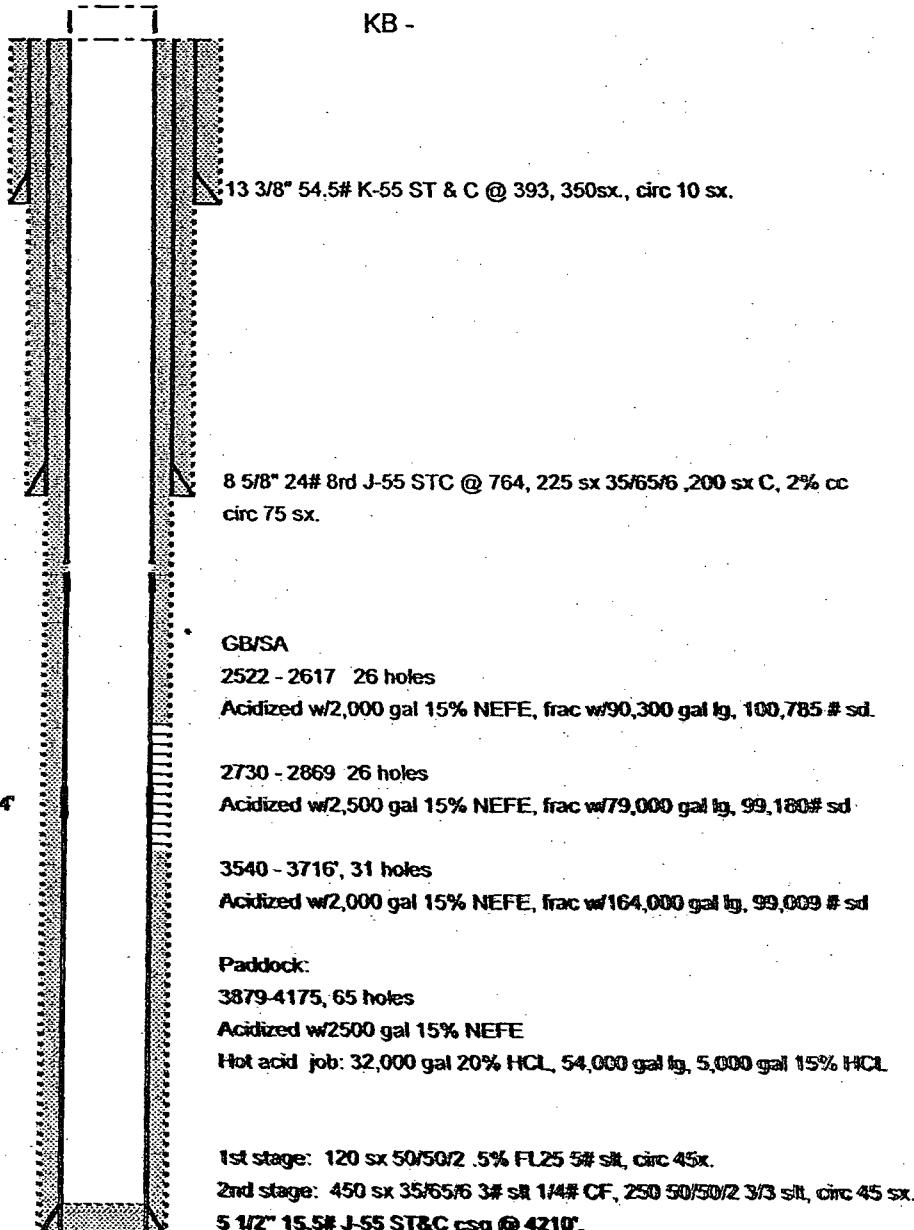
Elevation - 3649

KB -

DV tool-3666'

Marker jt- 4014'

PSTD - 4182'



# COG Operating LLC

Active

Lease & Well # Mesquite State #8  
API# 30-015-30940 E-20-17S-29E

SPUD - 4/18/00

Elevation - 3632' GL

KB -

13 3/8" 48 & 54 # K-55 ST & C @ 346', 350 sx CL C cmt, circ 46 sx.

8 5/8" 24 # 8rd J-55 STC @ 802', 225 sx 35/65/6, 200 sx CL C, circ 101sx

5 1/2" DV tool @ 3598'

Paddock

3871.5-4153 55 holes

Acidized w/2,500 gal 15% NEFE, Hot acid job: 32,000/54,000/5,000

Squeezed off w/500 sx to deepen.

4" DV Tool @ 4215'

1st stage: 180 sx CL C, circ 45 sx.

2nd stage: Dropped plug, closed DV tool.

5 1/2" 15.5# J-55 LT&C @ 4334'

Blinebry

4429 - 4620 32 holes

Acidized w/1,500 gal 15% NEFE, frac w/62,248 gal XL, 79,700 # sd

4700-4900 32 holes

Acidized w/2,500 gal 15% NEFE, frac w/62,892 gal XL, 66,929 # sd

4980-5180 42 holes

Acidized w/2,500 gal 15% NEFE, frac w/61,680 gal XL, 91,600 # sd

PBTD @ 5413'

4" 11.3# L-80 ULTFJ csg @ 5462'. Cmt w/80 sx C, circ 33 sx.

# COG Operating LLC

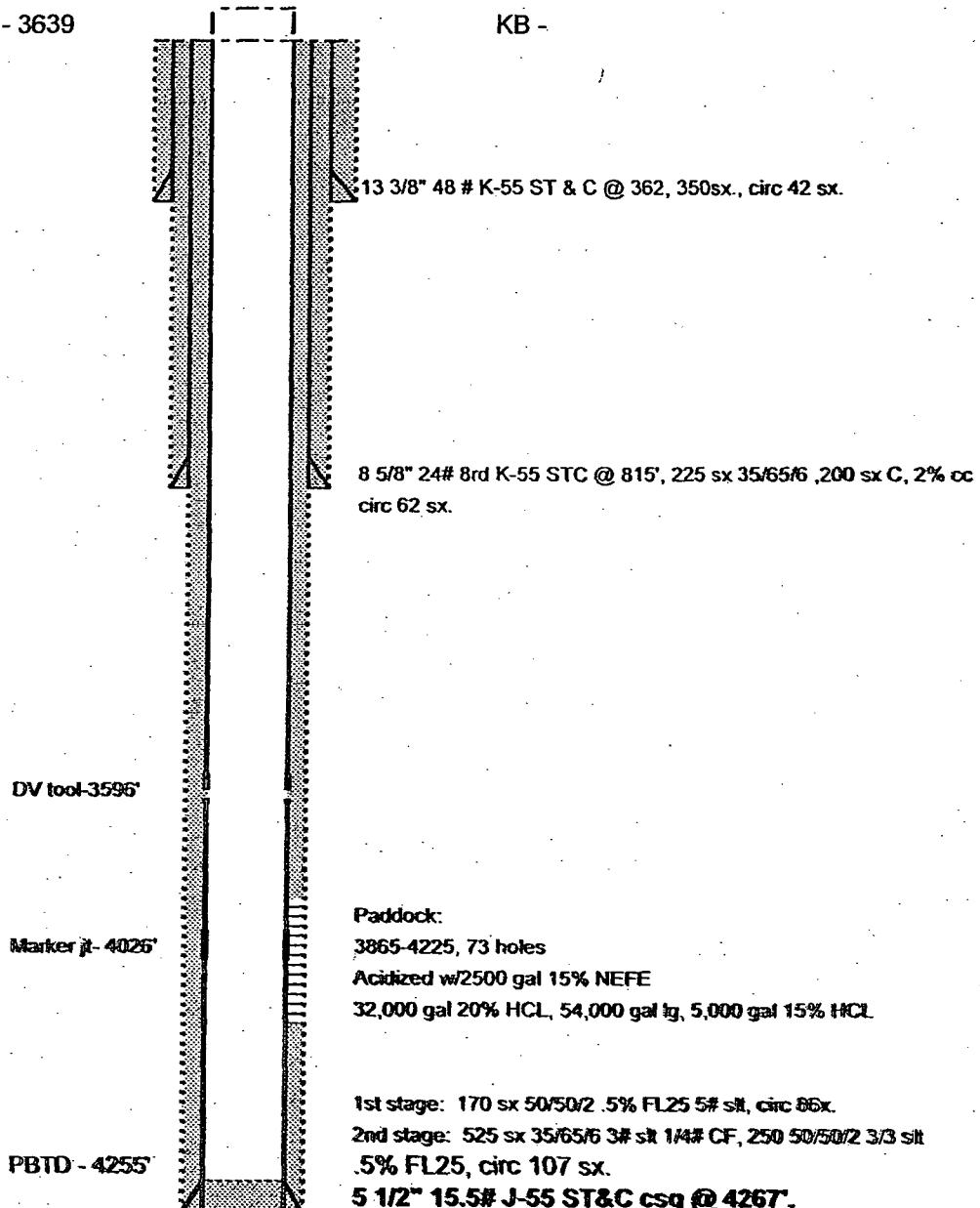
Active

Lease & Well #  
API# 30-015-30941

Mesquite State #9  
D-20-17S-29E

SPUD - 7/22/00

Elevation - 3639



# COG Operating LLC

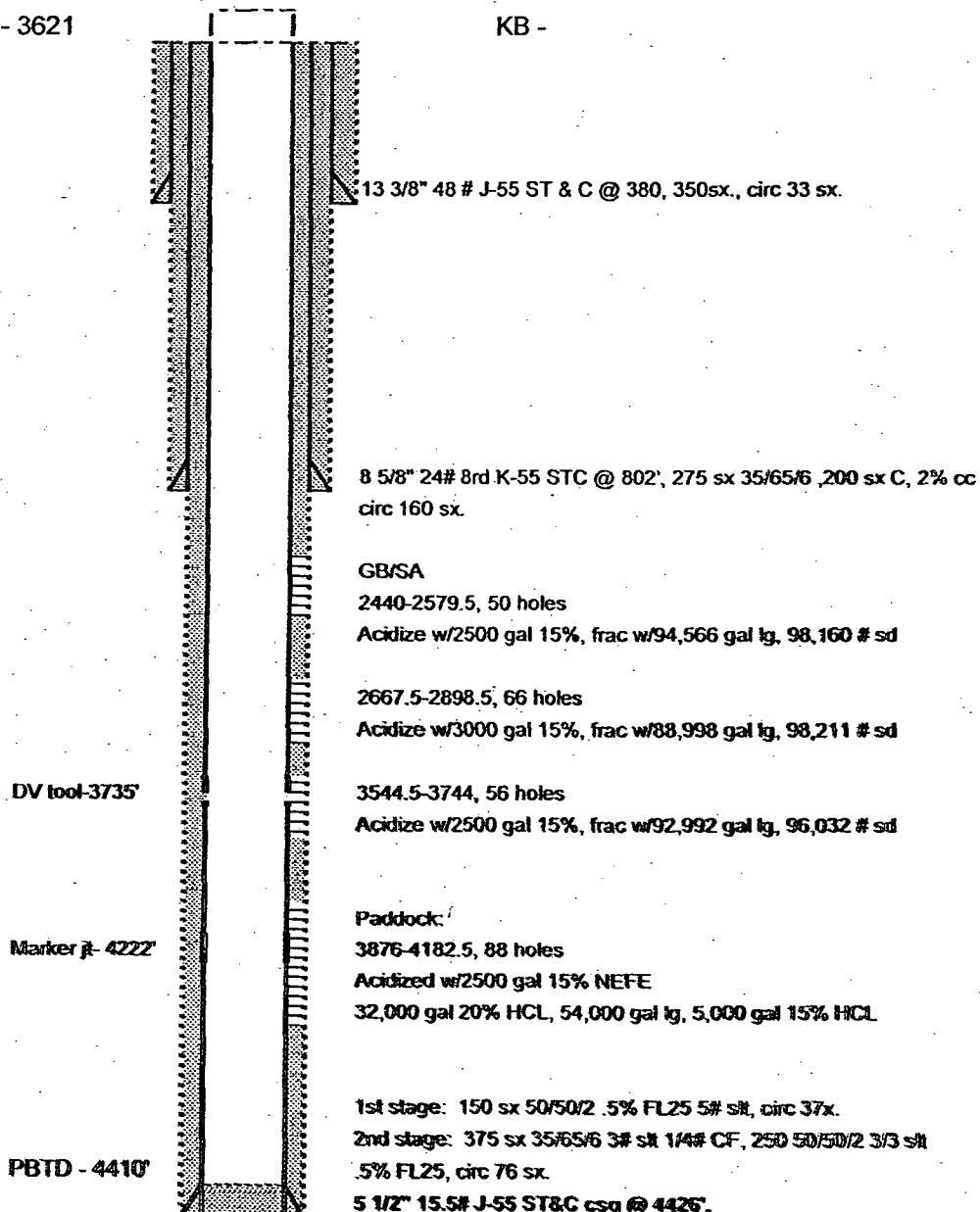
Active

Lease & Well #  
API# 30-015-31799

Mesquite State #11  
N-20-17S-29E

SPUD - 10/13/01

Elevation - 3621



# COG Operating LLC

Active

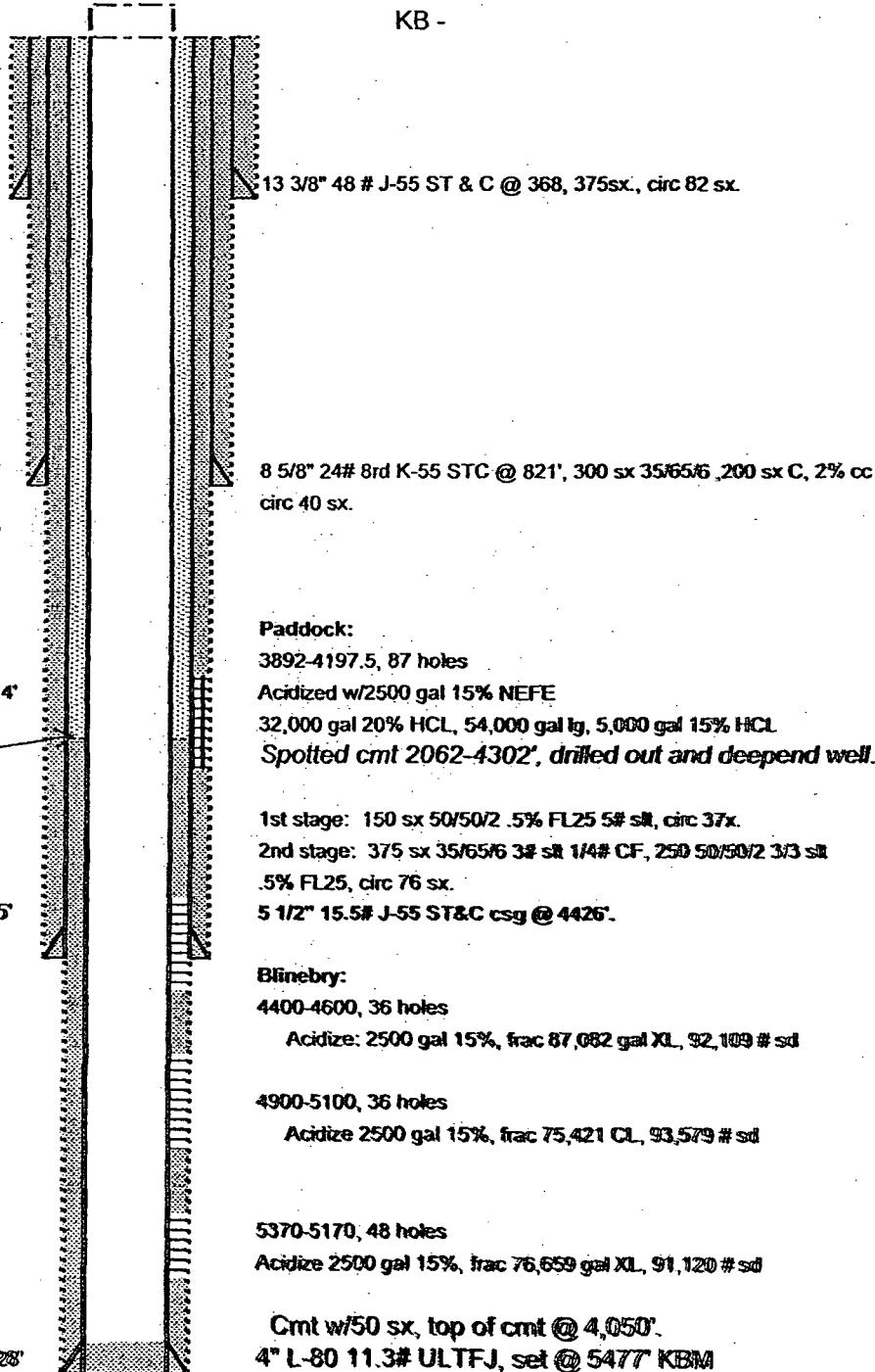
Lease & Well #  
API# 30-015-32159

Mesquite State #12  
N-20-17S-29E

SPUD - 11/20/07

Elevation - 3617

KB -



# COG Operating LLC

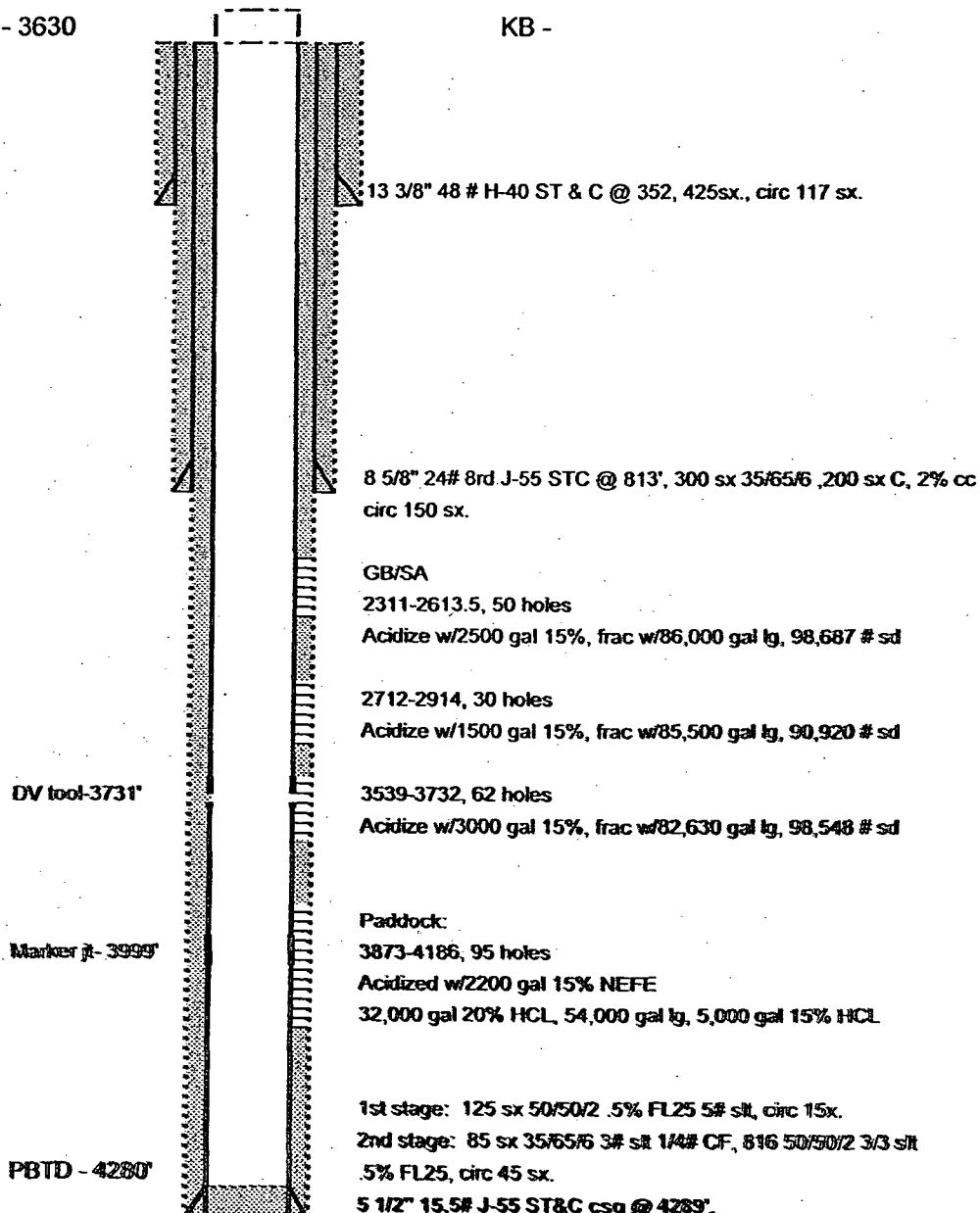
Active

Lease & Well #  
API# 30-015-33692

Mesquite State #13  
K-20-17S-29E

SPUD - 6/7/05

Elevation - 3630



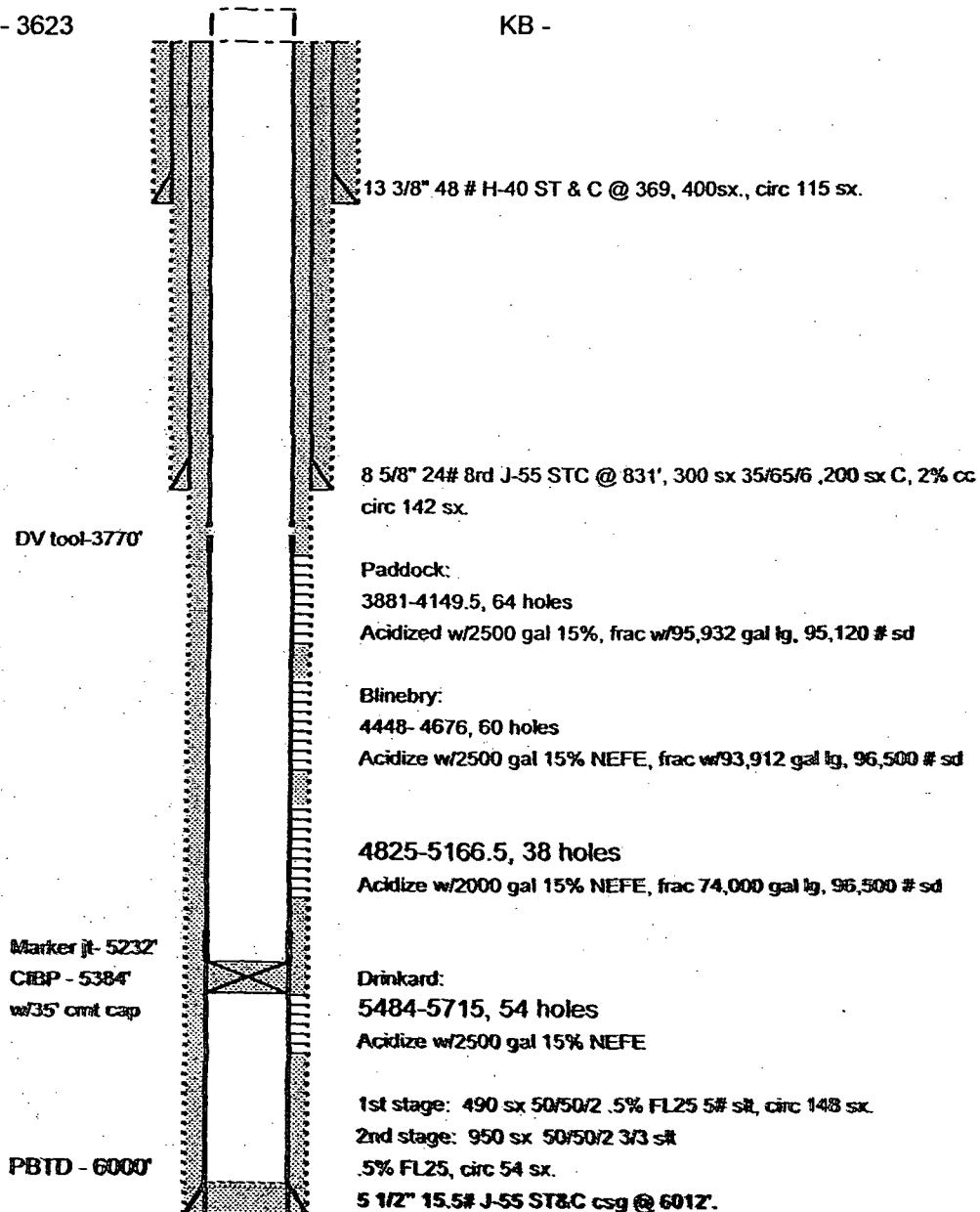
# COG Operating LLC

Active

Lease & Well # Mesquite State #14  
API# 30-015-34495 D-20-17S-29E

SPUD - 2/5/06

Elevation - 3623



Active

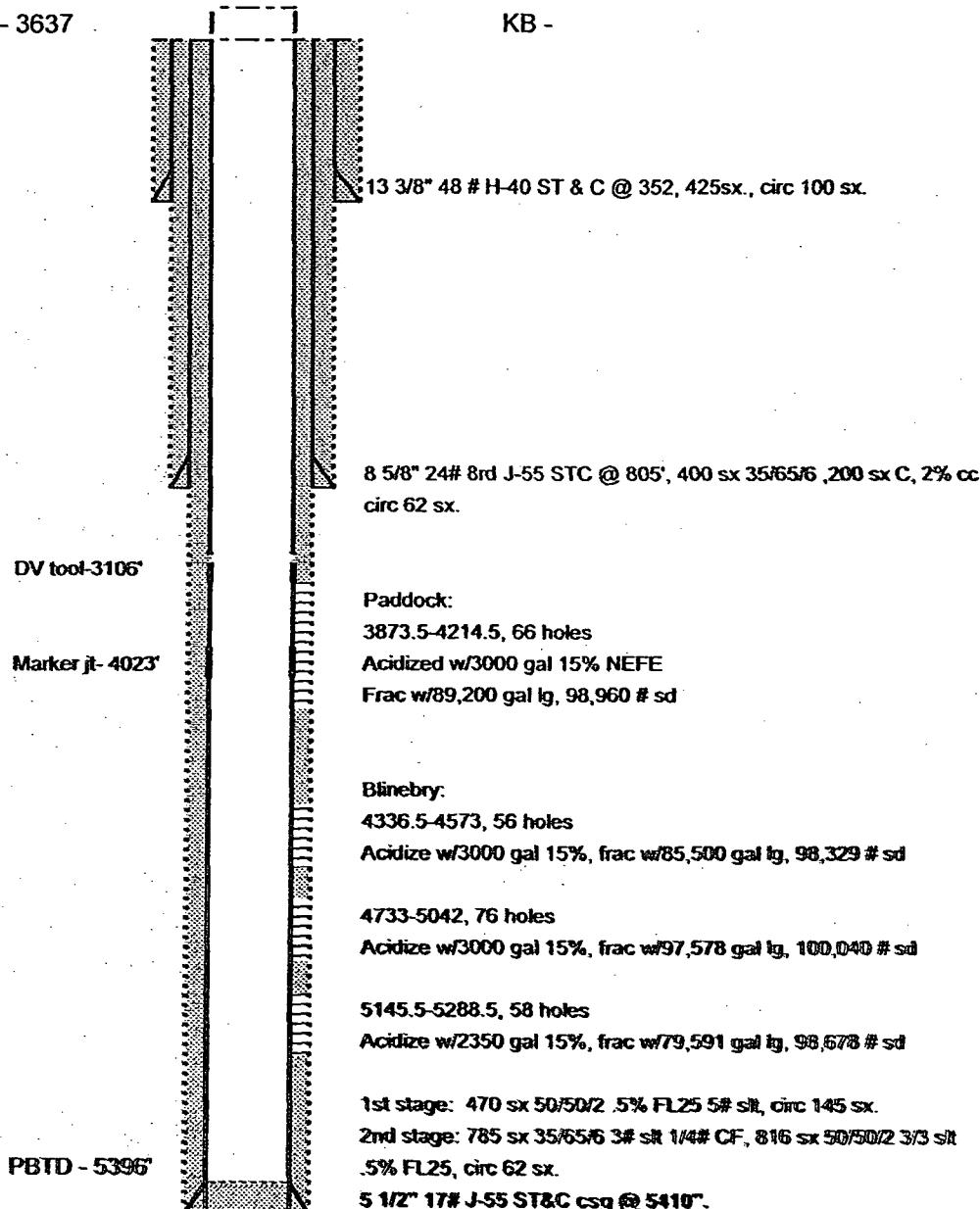
# COG Operating LLC

Lease & Well #  
API# 30-015-34496

Mesquite State #15  
L-20-17S-29E

SPUD - 3/12/06

Elevation - 3637



# Dwights PLUS on CD Well Summary Report

| General Information |                          |
|---------------------|--------------------------|
| State               | : NEW MEXICO             |
| County              | : EDDY                   |
| Field               | : EMPIRE EAST            |
| Operator Name       | : COG OPERATING LLC      |
| Lease Name          | : MESQUITE STATE         |
| Well Number         | : 15                     |
| API Number          | : 30015344960000         |
| Regulatory API      | : 3001534496             |
| Init Lahee Class    | : D                      |
| Final Lahee Class   | : DO                     |
| Permit Number       | :                        |
| Geologic Province   | : PERMIAN BASIN          |
| Formation at TD     | : 452YESO YESO           |
| Oldest Age Pen      | : 452 PERMIAN LEONARDIAN |
| Producing Formation | : 452YESO YESO           |
| Township            | : 17 S                   |
| Range               | : 29 E                   |
| Base Meridian       | : NEW MEXICO             |

| Additional Location Information |                                     |
|---------------------------------|-------------------------------------|
| Footage Location                | : 1750 FSL 990 FWL CONGRESS SECTION |
| Latitude                        | : 32.8175900 Latitude (Bot)         |
| Longitude                       | : -104.1020300 Longitude (Bot)      |
| Long. Source                    | :                                   |
| Narrative                       | : TS                                |
| Type                            | :                                   |
| SCALED FOOT                     | Remark                              |
| IRREG_SECT                      | REGULATORY                          |
|                                 | N                                   |

| Initial Potential Tests |          |           |           |            |       |      |          |             |             |
|-------------------------|----------|-----------|-----------|------------|-------|------|----------|-------------|-------------|
| Test                    | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR  | Oil Grav | Prod Method | Test Method |
| 004                     | 452YESO  | 452YESO   | 4336      | 5288       |       | 1645 |          | PERF        | PUMPING     |
| IP Volume               |          |           |           |            |       |      |          |             |             |

| Test           | Amount | Oil Unit | Cond Desc | Cond Amount | Cond Unit | Cond Desc | Gas Unit | Wtr Unit | Wtr Desc |
|----------------|--------|----------|-----------|-------------|-----------|-----------|----------|----------|----------|
| 004            | 76     | BPD      |           |             |           |           | 125      | MCFD     | 410 BBL  |
| IP Perforation |        |          |           |             |           |           |          |          |          |

| Test | Top  | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 004  | 4336 | 5288 |      | PERF   | 452YESO  | 452YESO   |        |       |         |     |

| Production Tests |          |           |           |            |       |     |          |             |             |
|------------------|----------|-----------|-----------|------------|-------|-----|----------|-------------|-------------|
| Test             | Top Form | Base Form | Top Depth | Base Depth | Choke | GOR | Oil Grav | Prod Method | Test Method |
| 001              | 452YESO  | 452YESO   | 5145      | 5288       |       |     |          | PERF        |             |
| 002              | 452YESO  | 452YESO   | 4733      | 5042       |       |     |          | PERF        |             |
| 003              | 452YESO  | 452YESO   | 4336      | 4573       |       |     |          | PERF        |             |

| Production Volume |            |           |           |             |           |           |            |          |          |
|-------------------|------------|-----------|-----------|-------------|-----------|-----------|------------|----------|----------|
| Test              | Oil Amount | Cond Unit | Cond Desc | Cond Amount | Cond Unit | Cond Desc | Gas Amount | Wtr Unit | Wtr Desc |
| 003               |            |           |           |             |           |           |            |          |          |

| Test | Top | Base | Volume | Meas | Amount | T/P | PSI | Inj | Type | Nbr | Agent | Add |
|------|-----|------|--------|------|--------|-----|-----|-----|------|-----|-------|-----|
|      |     |      |        |      |        |     |     |     |      |     |       |     |

# Dwights PLUS on CD Well Summary Report

|     |      |      |       |     |        |    |
|-----|------|------|-------|-----|--------|----|
| 001 | 5145 | 5288 | 2350  | GAL |        |    |
| 001 | 5145 | 5288 | 79591 | GAL | 98698  | LB |
| 002 | 4733 | 5042 | 3000  | GAL |        |    |
| 002 | 4733 | 5042 | 97578 | GAL | 100040 | LB |
| 003 | 4336 | 4573 | 3000  | GAL |        |    |
| 003 | 4336 | 4573 | 85500 | GAL | 98329  | LB |

|      |      |      |
|------|------|------|
| ACID |      | NEFE |
| FRAC | SAND |      |
| ACID |      | NEFE |
| FRAC | SAND |      |
| ACID |      | NEFE |
| FRAC | SAND |      |

### Production Perforation

| Test | Top  | Base | Type | Method | Top Form | Base Form | Status | Count | Density | Per |
|------|------|------|------|--------|----------|-----------|--------|-------|---------|-----|
| 001  | 5145 | 5288 |      | PERF   | 452YESO  | 452YESO   |        | 58    |         |     |
| 002  | 4733 | 5042 |      | PERF   | 452YESO  | 452YESO   |        | 76    |         |     |
| 003  | 4336 | 4573 |      | PERF   | 452YESO  | 452YESO   |        | 56    |         |     |

### Formations

| Form Code | Form Name    |
|-----------|--------------|
| 453YTES   | YATES        |
| 453SVRV   | SEVEN RIVERS |
| 453QUEN   | QUEEN        |
| 453GRBG   | GRAYBURG     |
| 453SADR   | SAN ANDRES   |
| 453GLRT   | GLORIETA     |

| Top Depth | Top TVD | Base Depth | Base TVD | Source | Lithology |
|-----------|---------|------------|----------|--------|-----------|
| 790       |         |            |          | LOG    |           |
| 1060      |         |            |          | LOG    |           |
| 1642      |         |            |          | LOG    |           |
| 2020      |         |            |          | LOG    |           |
| 2300      |         |            |          | LOG    |           |
| 3778      |         |            |          | LOG    |           |

### Log Data

| No | Log Type | Top | Base | Log MD | Max Temp |
|----|----------|-----|------|--------|----------|
| 1  | GR       |     |      |        |          |
| 1  | N        |     |      |        |          |
| 1  | DENL     |     |      |        |          |
| 1  | LATL     |     |      |        |          |
| 1  | SGR      |     |      |        |          |

### Casing Data

| Size      | Base Depth | Cement Unit |
|-----------|------------|-------------|
| 13 3/8 IN | 352        | 425 SACK    |
| 8 5/8 IN  | 805        | 600 SACK    |
| 5 1/2 IN  | 5410       | 1255 SACK   |

### Tubing Data

| Size     | Base Depth | Mixed String |
|----------|------------|--------------|
| 2 7/8 IN | 5308       |              |

Active

## COG Operating LLC

Lease & Well #  
API# 30-015-34497

Mesquite State #16  
L-20-17S-29E

SPUD - 3/16/06

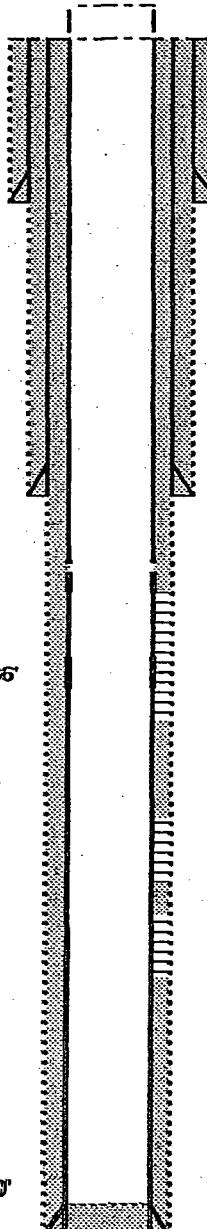
Elevation - 3647

KB -

DV tool-3131'

Marker jt- 4036'

PBTD - 5390'



13 3/8" 48 # H-40 ST & C @ 180, 450sx., did not circ. 1" to surface.

8 5/8" 24# 8rd J-55 STC @ 803', 400 sx 35/65/6 ,200 sx C, 2% cc  
circ 150 sx.

Paddock:

3870.5-4147, 64 holes

Acidized w/2750 gal 15% NEFE

Frac w/103,114 gal lg, 98,712 # sd

Blinebry:

4353-4548, 56 holes

Acidize w/2400 gal 15%, frac w/96,012 gal lg, 98,860 # sd

4640-4841.5, 62 holes

Acidize w/2200 gal 15%, frac w/93,496 gal lg, 98,578 # sd

1st stage: 570 sx 50/50/2 .5% FL25 5# silt, circ 121 sx.

2nd stage: 150 sx 35/65/6 3# sr 1/4# CF, 630 sx 50/50/2 3/3 silt

.5% FL25, circ 127 sx.

5 1/2" 17# J-55 ST&C csg @ 5404".

# COG Operating LLC

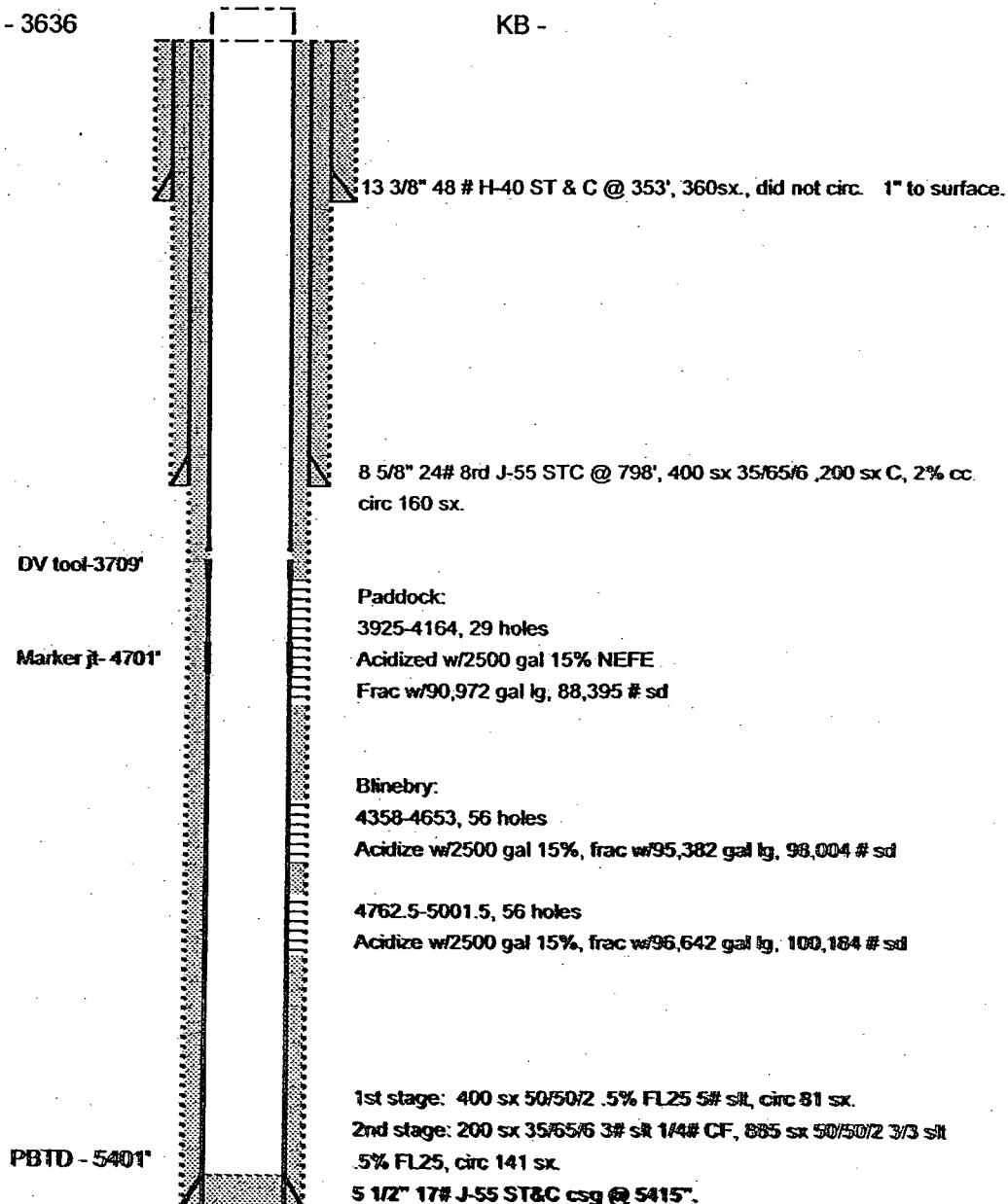
Active

Lease & Well #  
API# 30-015-34818

Mesquite State #17  
E-20-17S-29E

SPUD - 5/6/06

Elevation - 3636



# COG Operating LLC

Active

Lease & Well # Mesquite State #18  
API# 30-015-34819 E-20-17S-29E

SPUD - 5/20/06

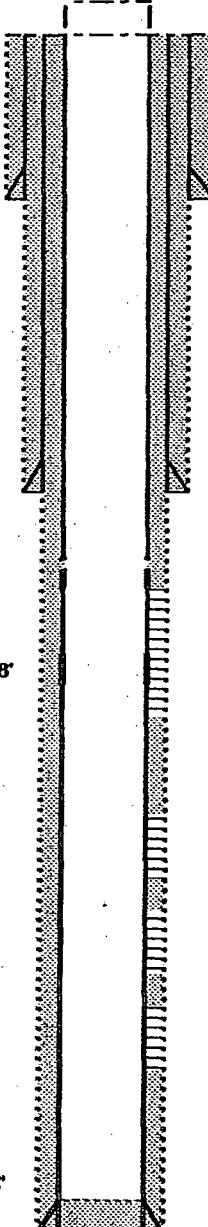
Elevation - 3647

KB -

DV tool-3720'

Marker jt- 3898'

PBTD - 5376'



Active

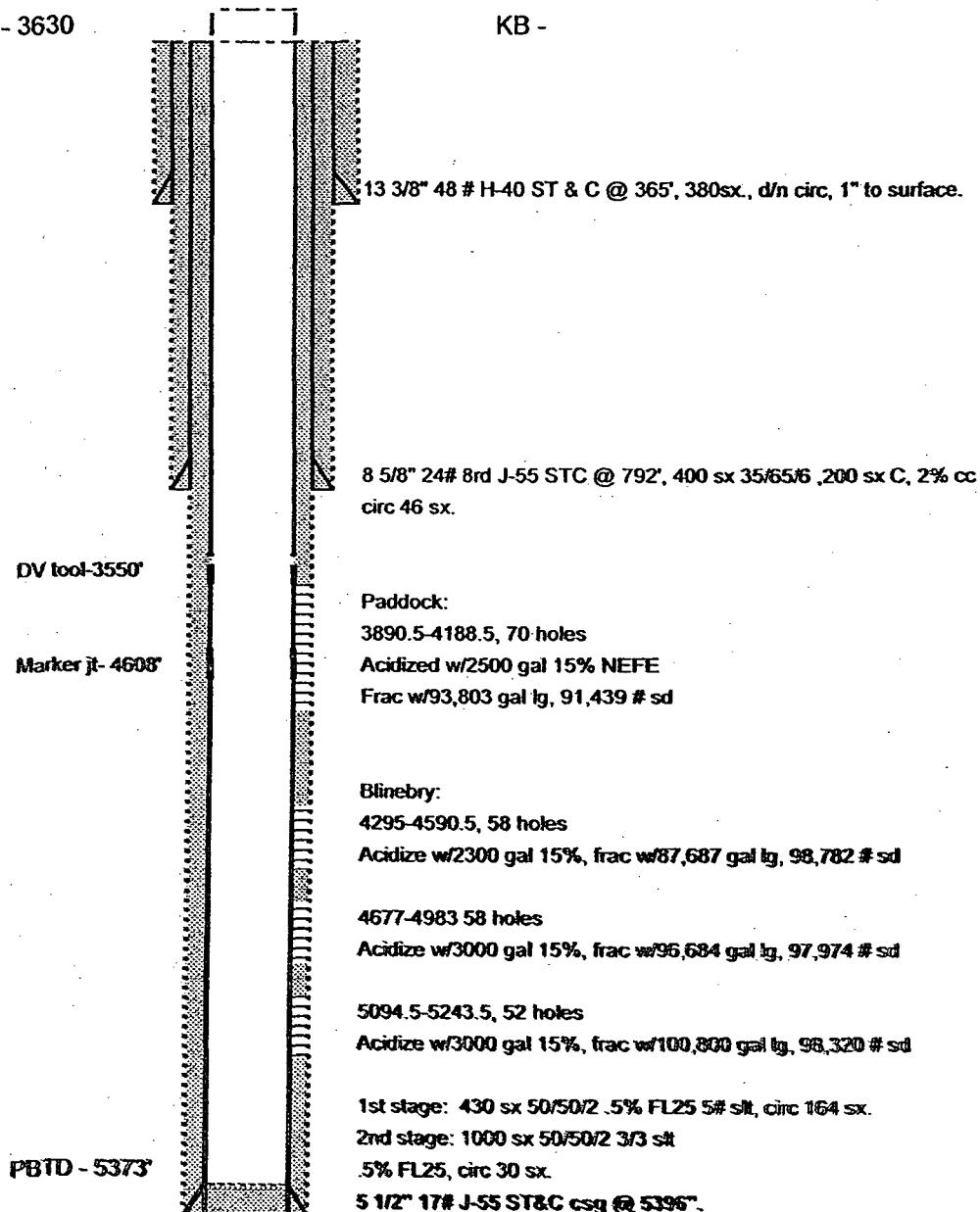
## COG Operating LLC

Lease & Well #  
API# 30-015-34820

Mesquite State #19  
D-20-17S-29E

SPUD - 7/24/06

Elevation - 3630



# COG Operating LLC

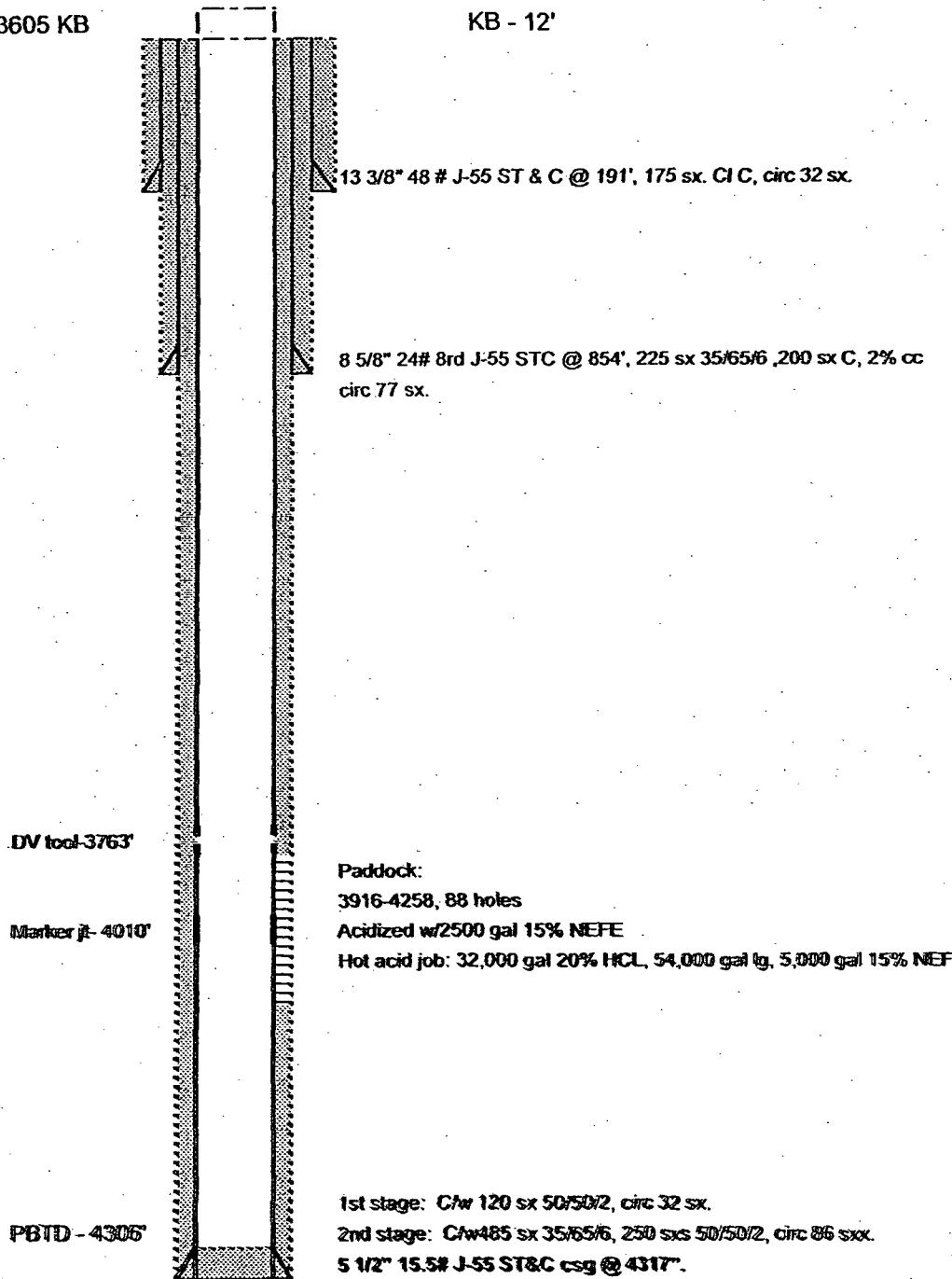
Active

Lease & Well #  
API# 30-015-30675

Rincon State #3  
J-20-17S-29E

9/9/1999

Elevation - 3605 KB



# COG Operating LLC

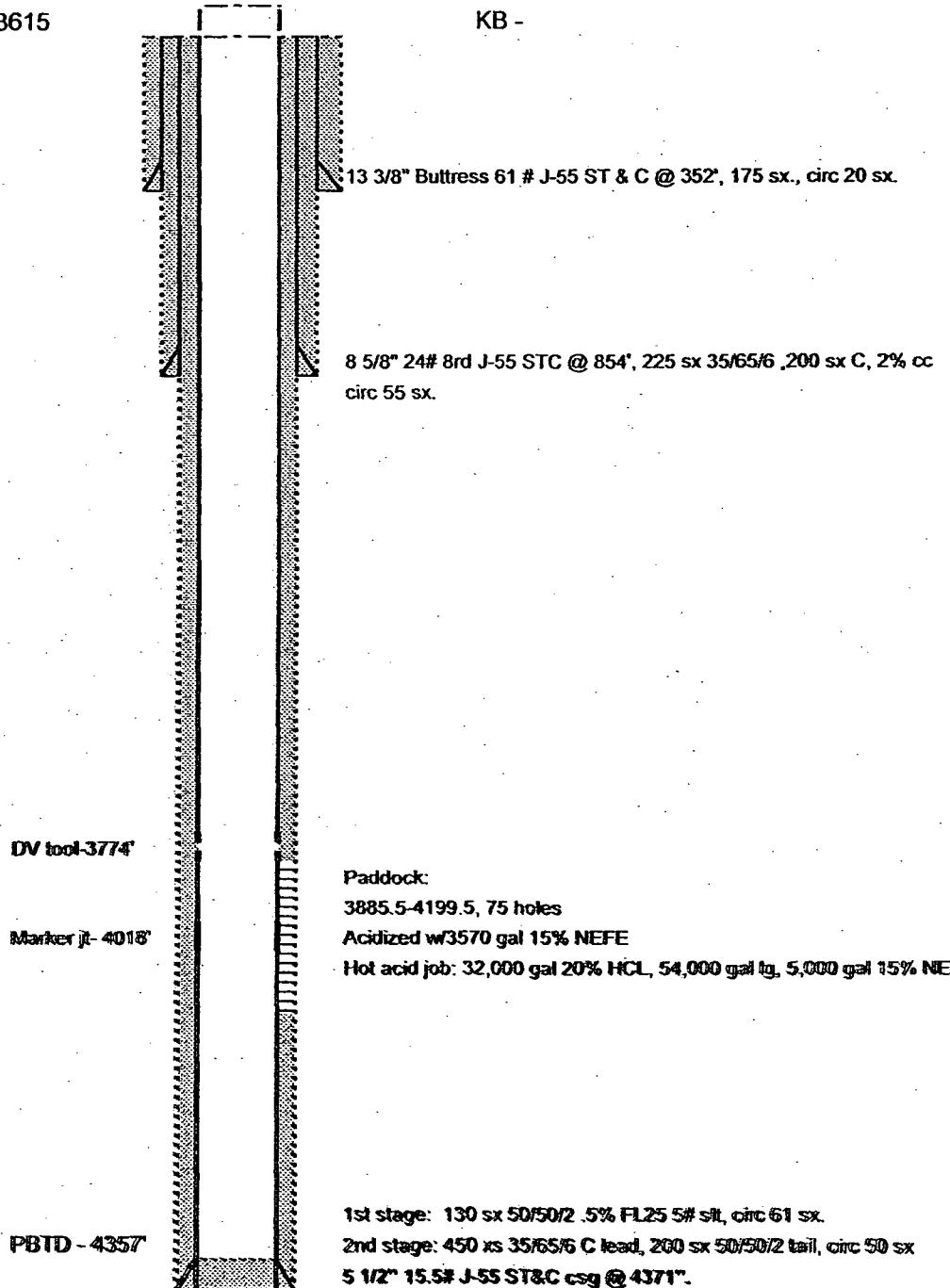
Active

Lease & Well #  
API# 30-015-30943

Rincon State #4  
J-20-17S-29E

SPUD- 2/8/00

Elevation - 3615



# COG Operating LLC

Active

Lease & Well #  
API# 30-015-32158

Rincon State #7  
J-20-17S-29E

Spus- 4/18/2002

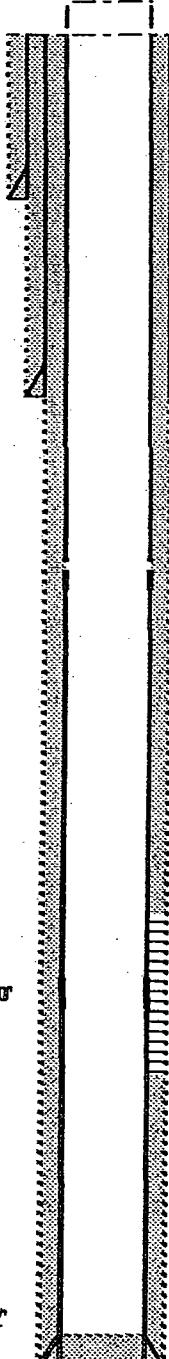
Elevation - 3608

KB -

DV tool-3755

Marker # 4180'

PBD - 4382'



13 3/8" 48 # J-55 ST & C @ 374', 350 sx., circ 51 sx.

8 5/8" 32# 8rd J-55 STC @ 834', 325 sx 35/65/6 ,200 sx C, 2% cc  
circ 80 sx.

## Paddock:

3900-4216 100 holes

Acidized w/3,910 gal 15% NEFE

Hot acid job: 32,000 gal 20% HCL, 54,000 gal lg, 5,000 gal 15% NEFE

Frac w/125,665 gal lg, 134,440 # sd

1st stage: 170 sx 50/50/2 .5% FL25 5# silt, circ 32 sx.

2nd stage: 525 xs 35/65/6 C lead, 250 sx 50/50/2 tail, circ 82 sx

5 1/2" 17# J-55 ST&C csg @ 371' @ 4454'.

# COG Operating LLC

Active

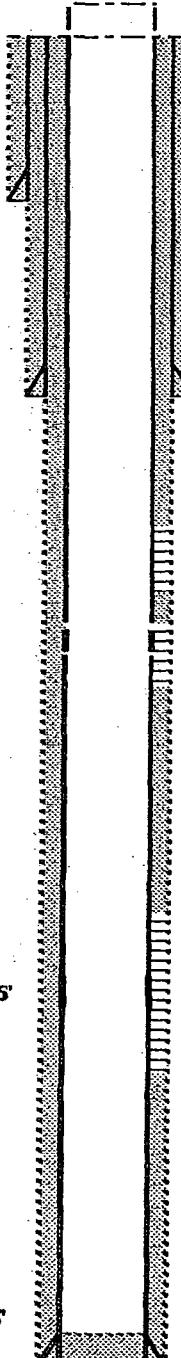
Lease & Well #  
API# 30-015-34383

Rincon State #8  
J-20-17S-29E

Spud- 11/25/05

Elevation - 3609

KB -



13 3/8" 48 # J-55 ST & C @ 353', 420 sx., circ 98 sx.

8 5/8" 32# 8rd J-55 STC @ 874', 300 sx 35/65/6 ,200 sx C, 2% cc  
circ 150 sx.

GB/SA

2540-2878.5, 66 holes

Acidize w/2,500 gal 15% NEFE, frac w/87,906 gal lg, 101,786 # sd

3475-3776, 68 holes

Acidize w/2,500 gal 15% NEFE, frac w/90,720 gal lg, 100,694 # sd

Paddock:

3901-4253 97 holes

Acidized w/2,500 gal 15% NEFE

Hot acid job: 32,000 gal 20% HCL, 54,000 gal lg, 5,000 gal 15% NEFE

1st stage: 150 sx 50/50/2 .5% FL25 5# sli, circ 72 sx.

2nd stage: 100 xs 35/65/6 C lead, 700 sx 50/50/2 tail, circ 140 sx

5 1/2" 17# J-55 ST&C csg @ 371' @ 4289'.

# COG Operating LLC

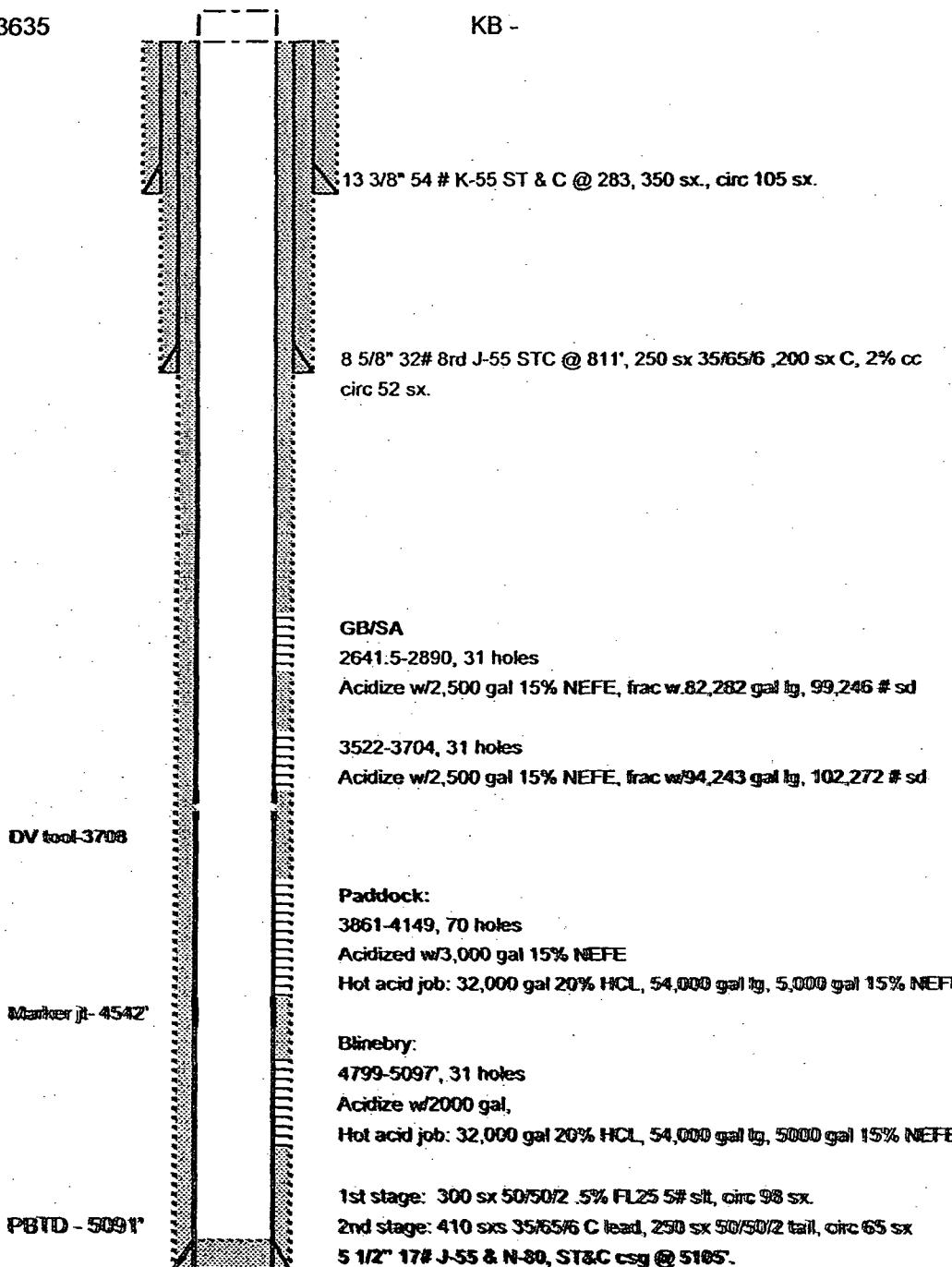
Lease & Well #  
API# 30-015-30603

Tenneco State #1  
M-20-17S-29E

Active

Spud- 4/4/99

Elevation - 3635



# COG Operating LLC

Lease & Well #  
API# 30-15-30861

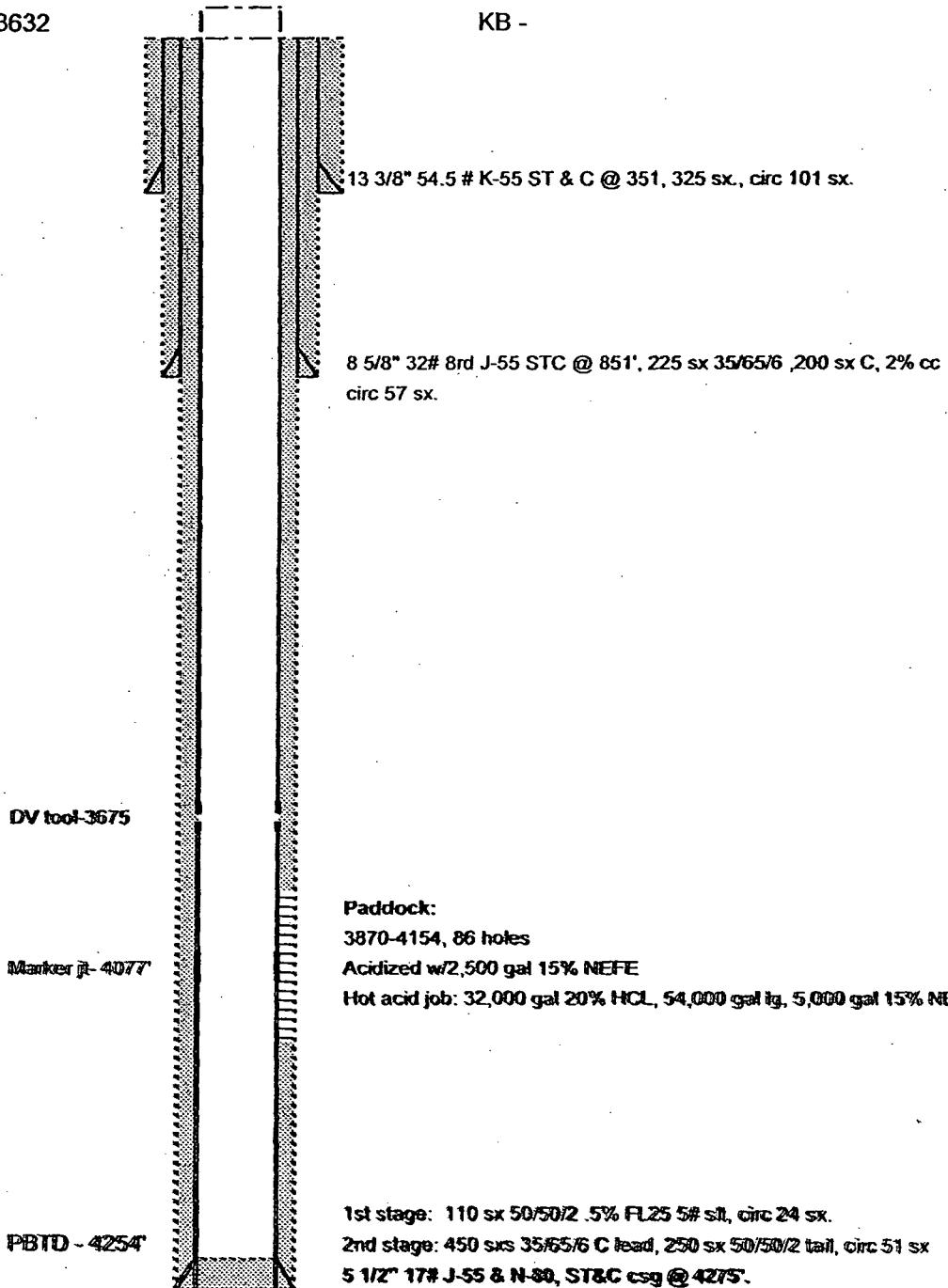
Tenneco State #2  
M-20-17S-29E

Active

Spud- 12/17/99

Elevation - 3632

KB -



# COG Operating LLC

Lease & Well #  
API# 30-15-31480

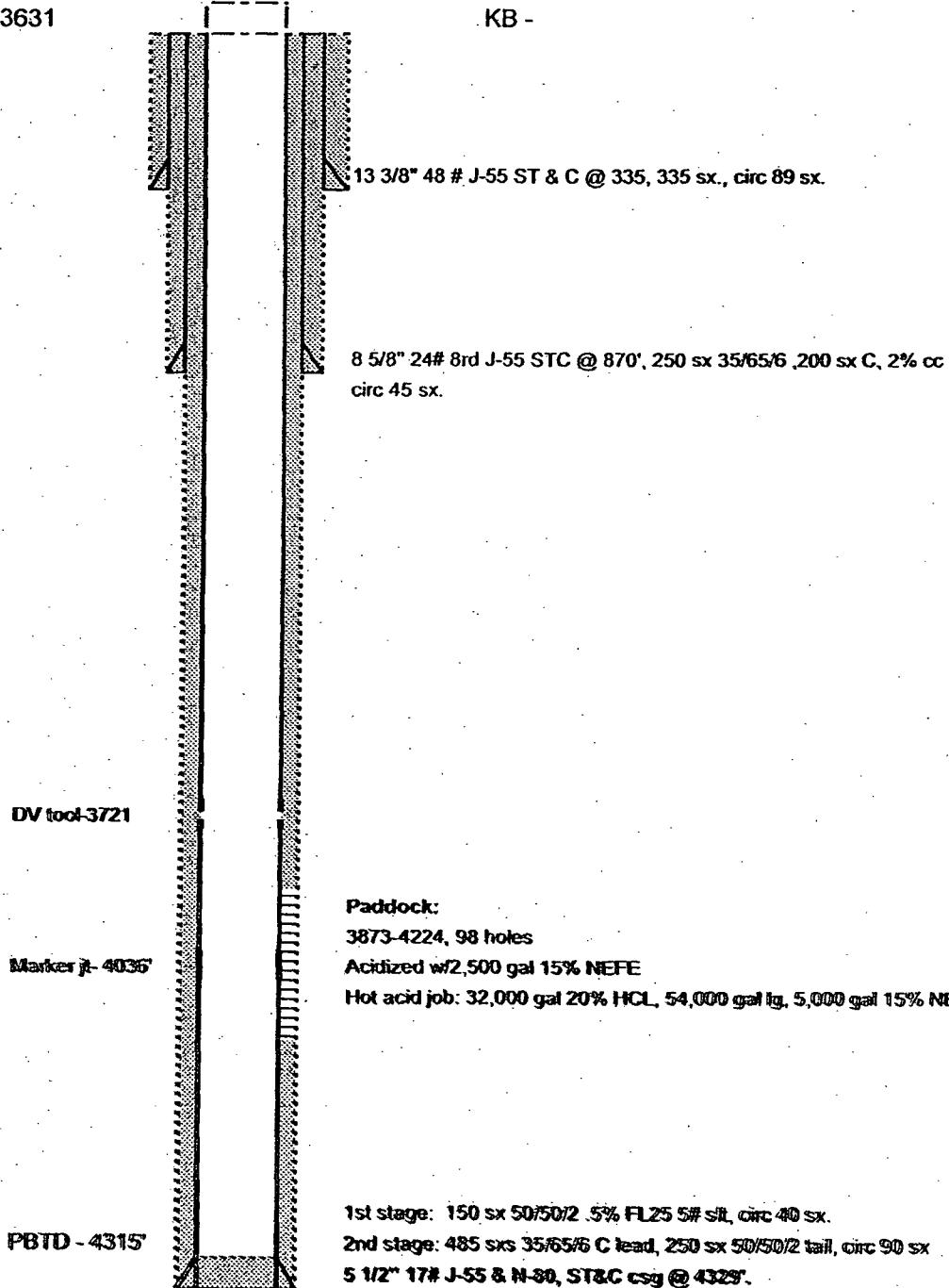
Tenneco State #3  
M-20-17S-29E

Active

Spud- 12/9/00

Elevation - 3631

KB -



# COG Operating LLC

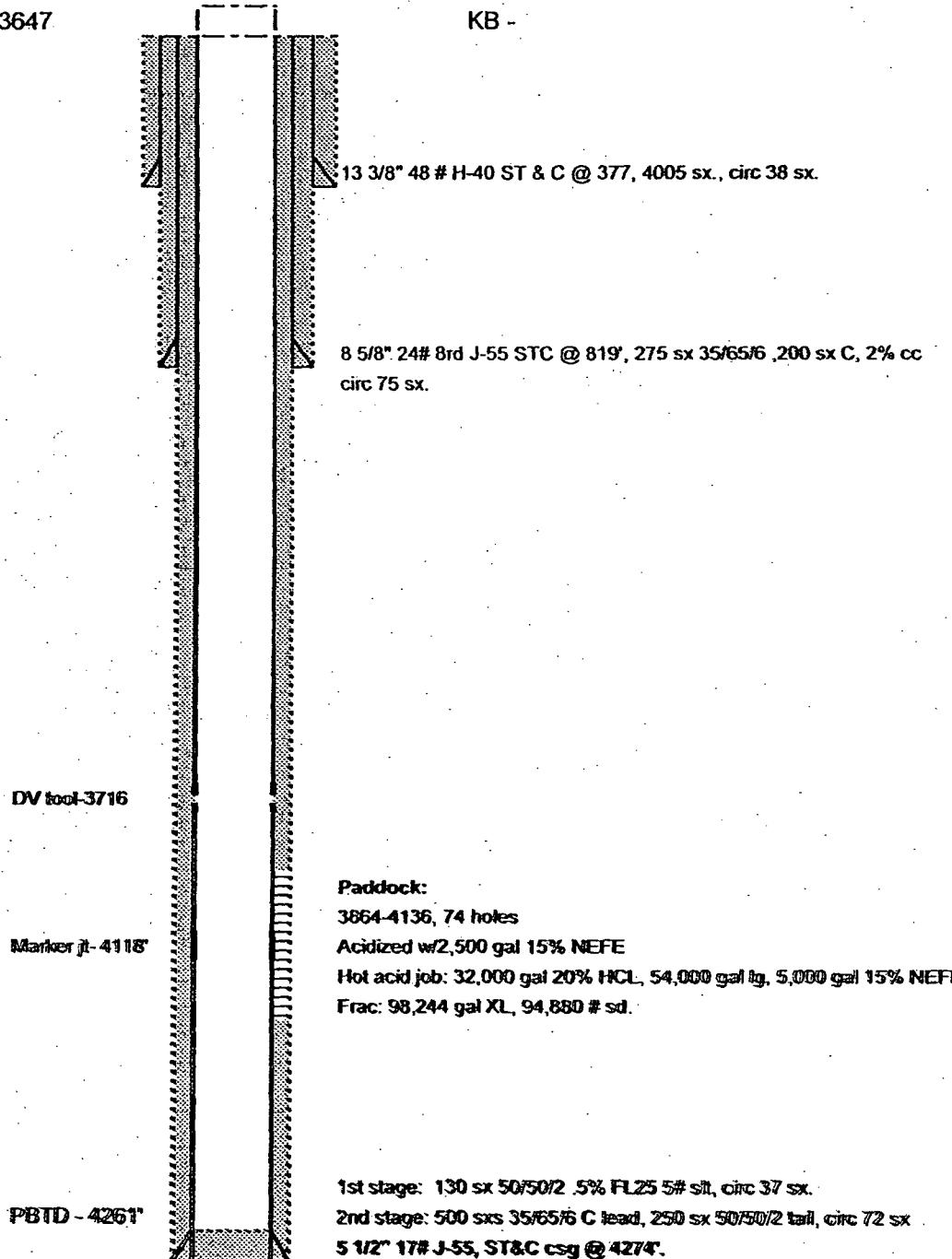
Lease & Well #  
API# 30-015-32242

Tenneco State #4  
M-20-17S-29E

Active

Spud- 5/1/02

Elevation - 3647



# Mewbourne Oil Company

Lease & Well #  
API# 30-015-27135

Empite 20 State #1

Eddy County, NM  
Sec 20 T17S R29E 2180 FNL & 1980 FWL

Elevation GL - 3626

KB

DV Tool @ 7,020'

Packer fluid

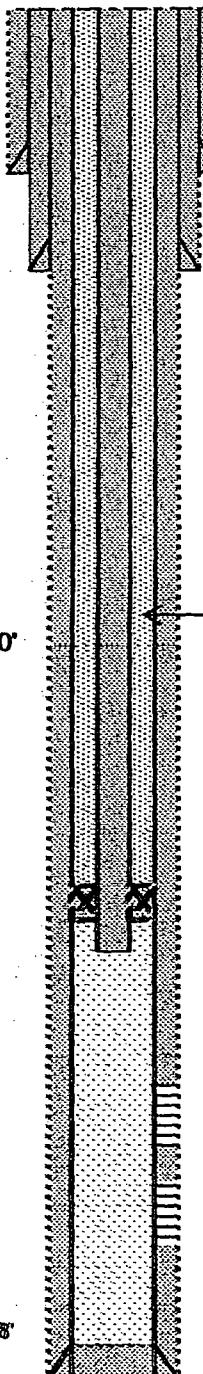
2 7/8" tbg  
Packer @ 10,522'

Morrow  
10,620 - 10,640' 41 holes  
Acidized both zones w/5,000 gal 7 1/2% HCl w/1,000 scf/bbl N2

10,750' - 10,7672' 28 holes

1st stage: 1550 sx H w/add.  
2nd stage: 1415 sx H litew/add., 100 sx cl H tail. Circ 50 sx to pit.  
5 1/2" 17.0 # N-80 & S-95 LT&C csg @ 10,920'.

PSTD - 10,878'



# Mewbourne Oil

## Lease & Well # Empire 20 State #2

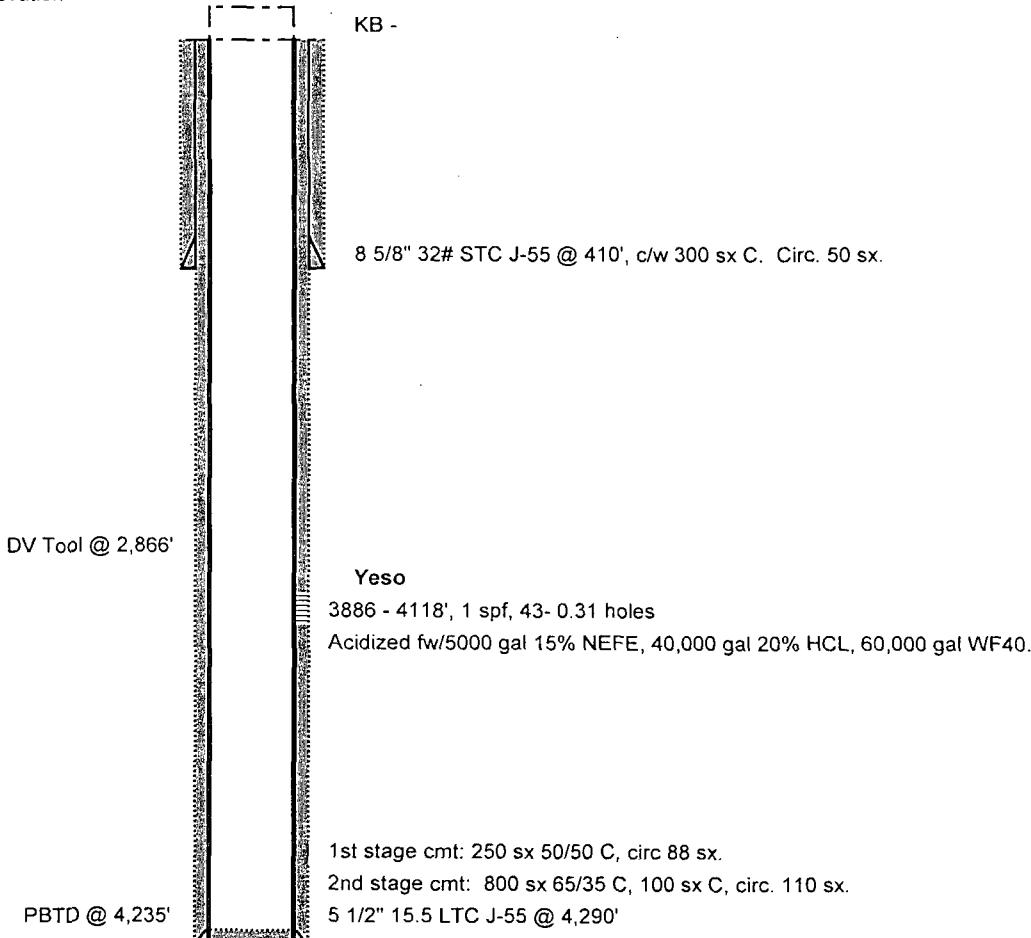
API# 30-15-31268

Eddy Co., NM

Spud - 12/28/2000

Sec 20, T17S, R29E, 1650 FNL & 1650 FWL

Elevation - 3624



# Mewbourne Oil

## Lease & Well # Empire 20 State #3

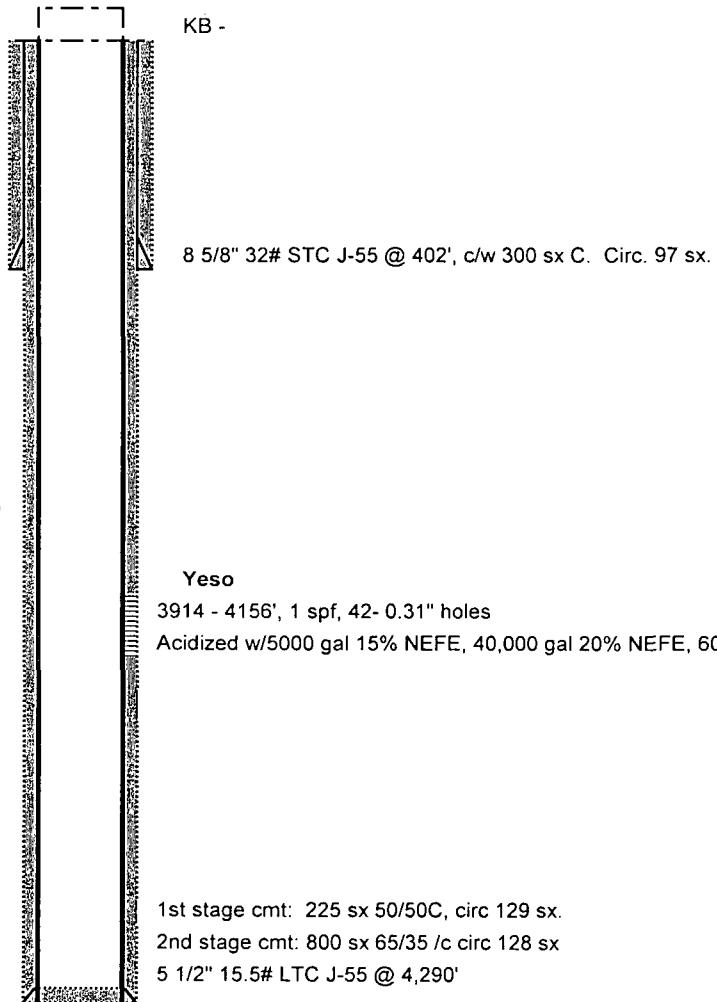
API # 30-015-31269

Spud - 12/17/2000

Elevation - 3621

Eddy Co., NM

Sec 20, T17S, R29E, 2310 FNL & 2310 FWL



# Mewbourne Oil

Lease & Well # Empire 20 State #4

ACTIVE

API# 3001535873

Eddy Co., NM

Spud - 11/18/2007

Sec 20, T17S, R29E, 1650 FNL & 2310 FWL

Elevation - 3619

KB -

8 5/8" 32# STC J-55 @ 399', c/w 300 sx C. Circ. 92 sx.

Yeso

4323 - 4564', 1 spf, 58- 0.41" holes

Acidized w/2500 gal 15% NEFE, frac w/80,000 gal WR 30, 100,000 # 16/30

4664' - 5020', 1 spf, 80- 0.41" holes

Acidized w/2500 gal 15% NEFE, frac w/80,000 gal WF30, 100,000# 16/30

CIBP - 7,040' w/50' cmt cap

ABO

7,084 - 7,182', 1 spf, 60- 0.41" holes

Acidized w/5,000 gal 15% NEFE

Cmt w/1350 sx BJ lite, 200 sx H, Circ. cmt.

5 1/2" 17# LTC K-55 @ 7,500'

PBTD- @ 7,300'

# Mewbourne Oil

ACTIVE

## Lease & Well # Empire 20 State #5

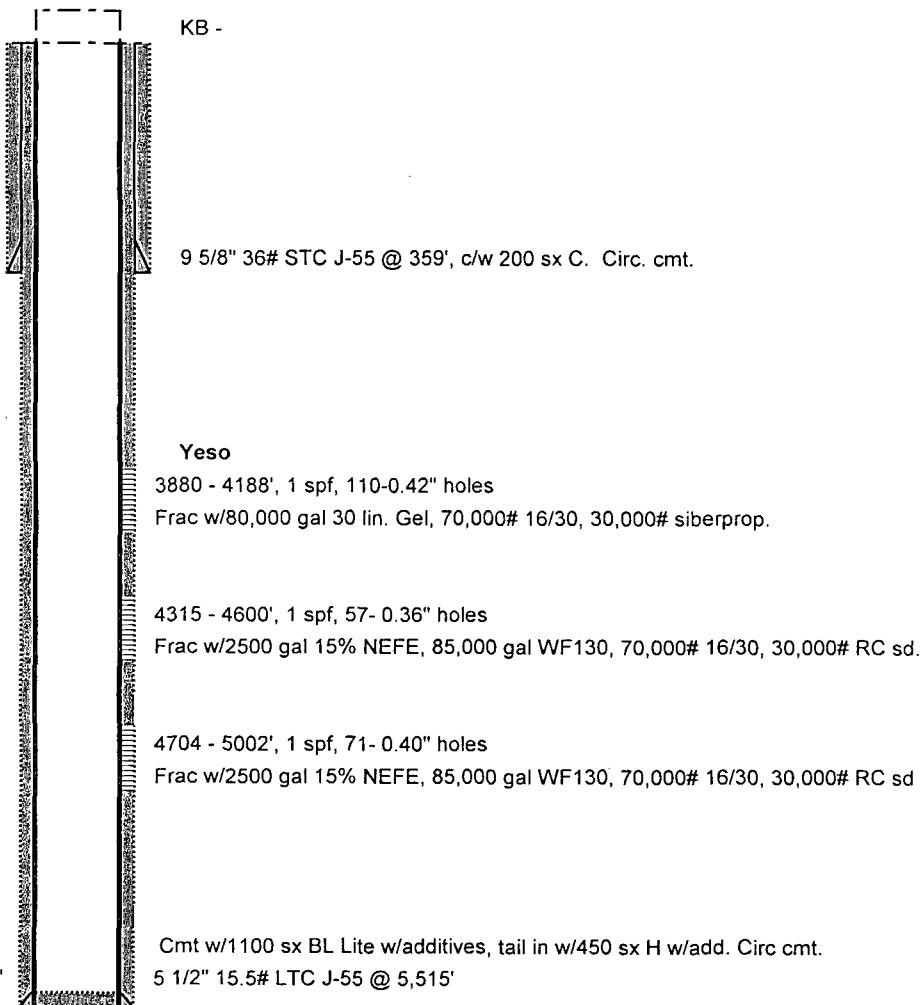
API# 3001535874

Spud - 12/9/2007

Elevation - 3626

Eddy Co., NM

Sec 20, T17S, R29E, 2310 FNL & 1860 FWL

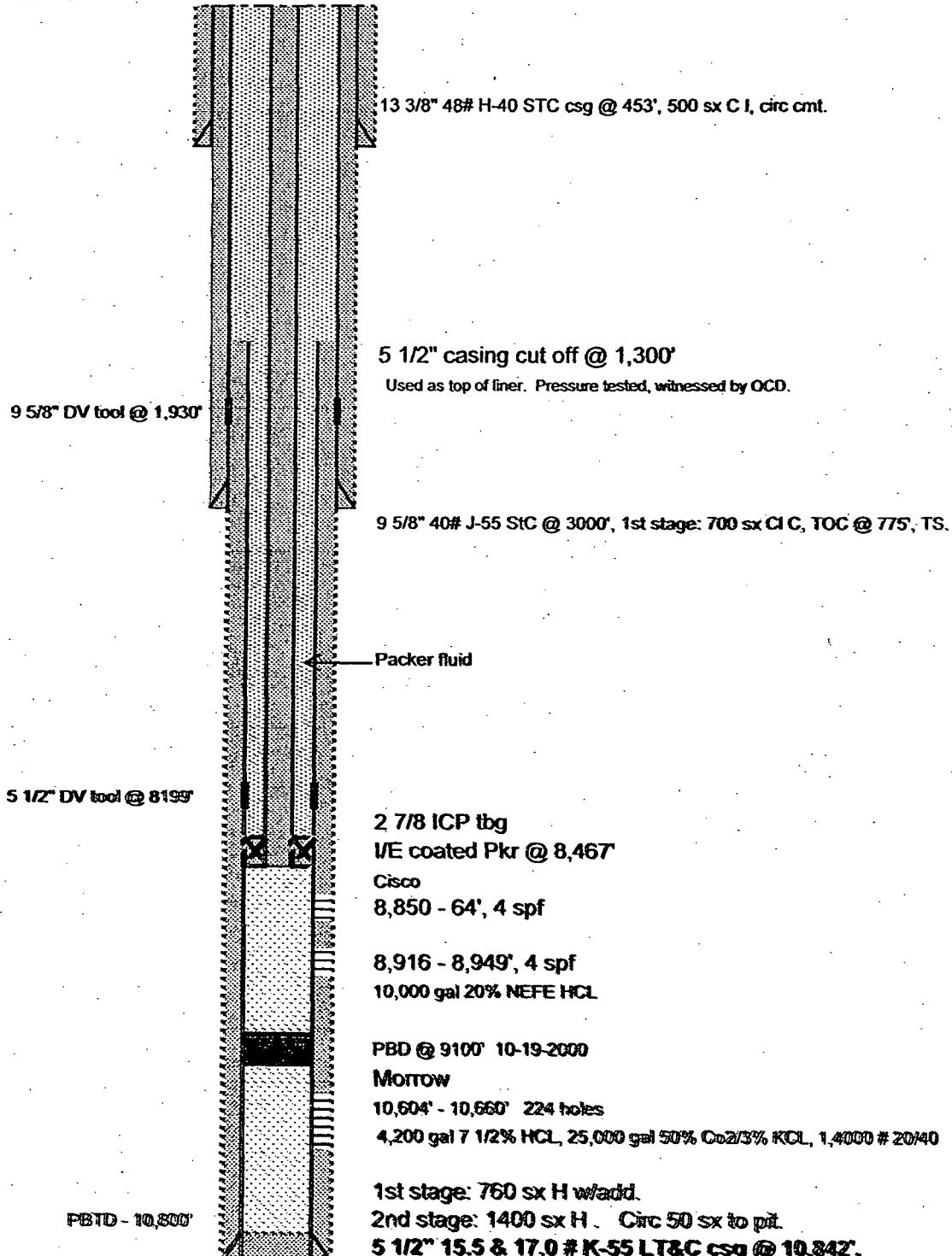


# Mewbourne Oil Company

Lease & Well #  
API# 30-015-25077

New Mexico EO State Com WD #1  
Eddy County, NM  
Sec 20 T17S R29E 1980 FNL & 660 FWL

Elevation GL - 3638



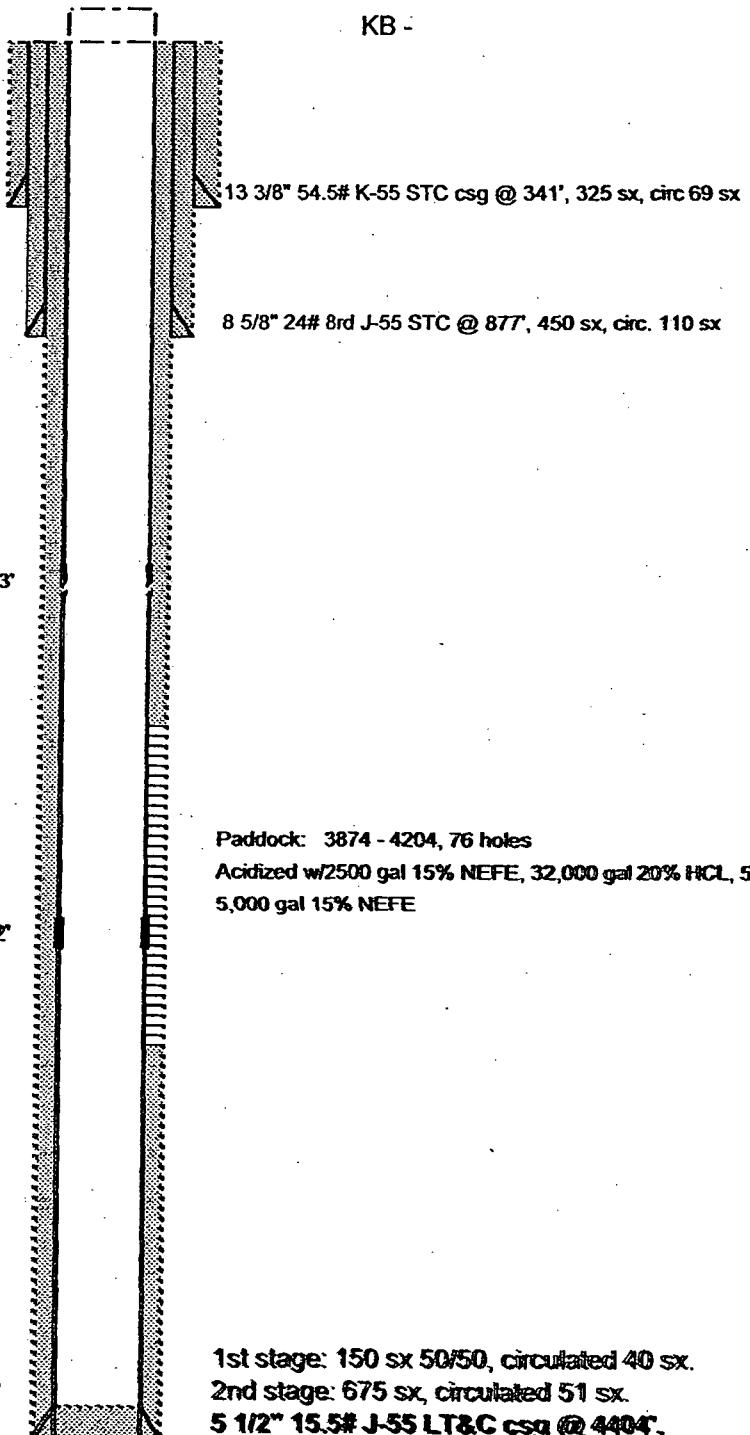
# COG Operating LLC

Lease & Well #  
API# 30-015-30813  
SPUD - 12/3/99

White Star Federal #7  
D-29-17S-29E

Active

Elevation - 3617



# COG Operating LLC

Lease & Well #  
API# 30-015-30707  
SPUD - 8/25/99

**White Star Federal #8**  
C-29-17S-29E

Active

Elevation - 3611

KB -

DV Tool - 3768'

Marker jt @ 4003'

PSTD - 4340'

Paddock: 3926 - 4291, 96 holes

Acidized w/2500 gal 15% NEFE, 32,000 gal 20% HCl, 54,000 gal lg  
5,000 gal 15% NEFE

1st stage: 120 sx 50/50, circulated 43 sx.  
2nd stage: 780 sx, circulated 30 sx.  
**5 1/2" 15.5# J-55 LT&C csg @ 4351'.**

# COG Operating LLC

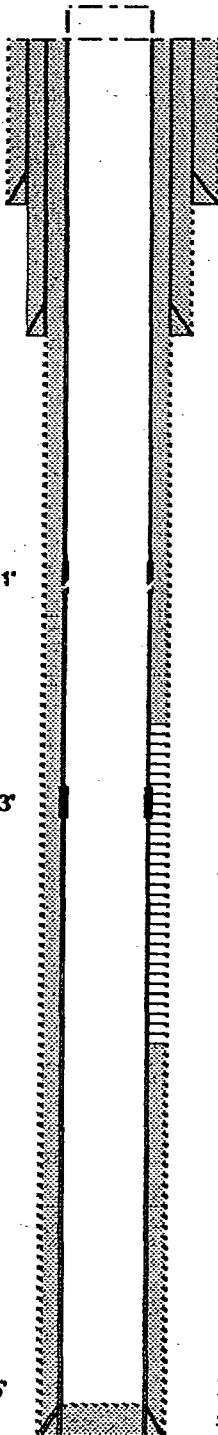
Lease & Well #  
API# 30-15-30927  
SPUD - 8/30/00

White Star Federal #11  
D-29-17S-29E

Active

Elevation - 3626

KB -



13 3/8" 48# K-55 STC csg @ 314', 350 sx, circ 46 sx

8 5/8" 24# 8rd J-55 STC @ 821', 425 sx, circ. 88 sx

Paddock: 3860 - 4142, 73 holes

Acidized w/2500 gal 15% NEFE, 32,000 gal 20% HCl, 54,000 gal lg  
5,000 gal 15% NEFE

1st stage: 150 sx 50/50, circulated 66 sx.  
2nd stage: 725 sx, circulated 88 sx.  
5 1/2" 15.5# J-55 LT&C csg @ 4358'.

# COG Operating LLC

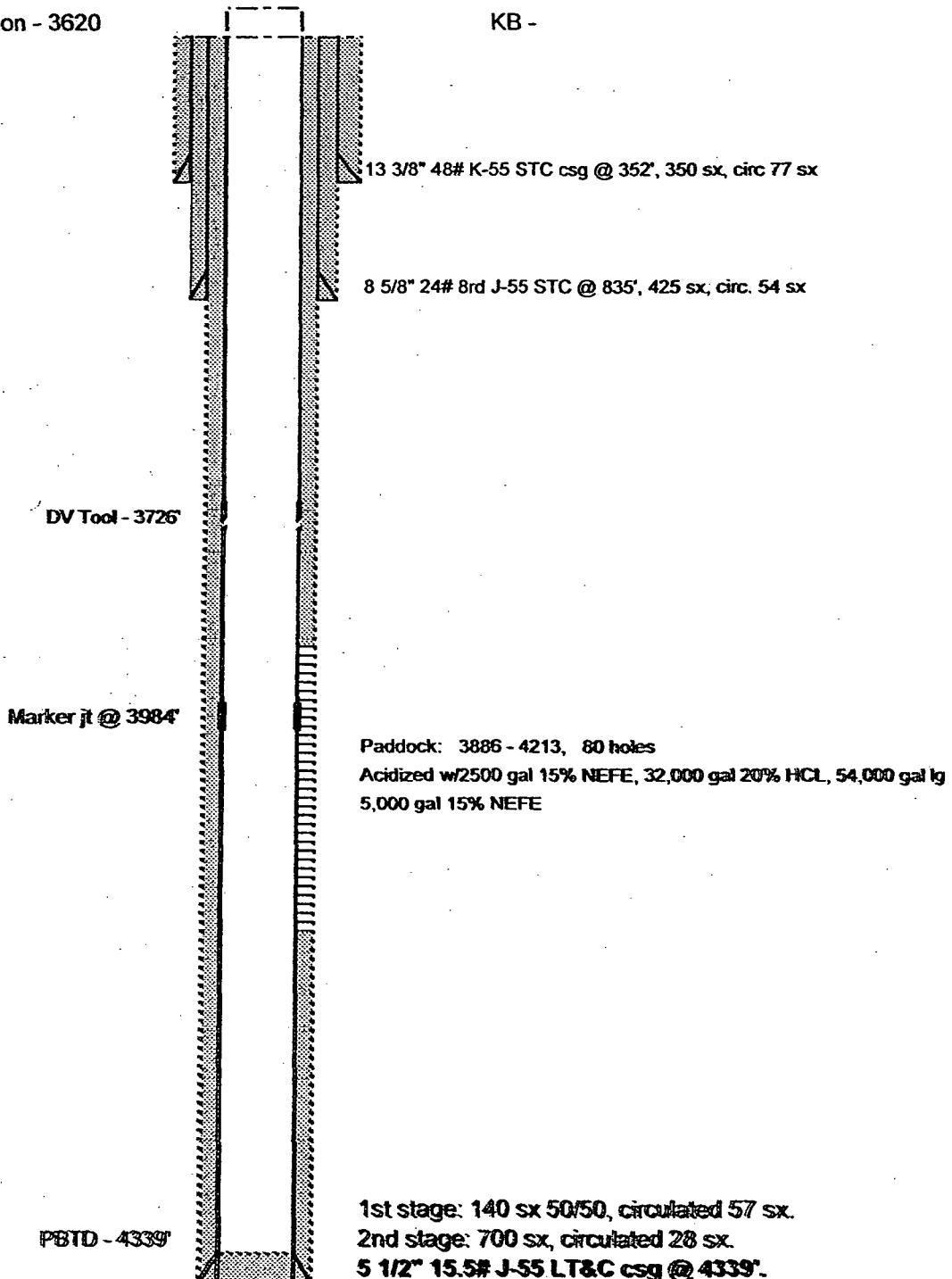
**Lease & Well #**  
API# 30-015-30928  
SPUD - 4/5/00

**White Star Federal #12**  
C-29-17S-29E

**Active**

Elevation - 3620

KB -



# COG Operating LLC

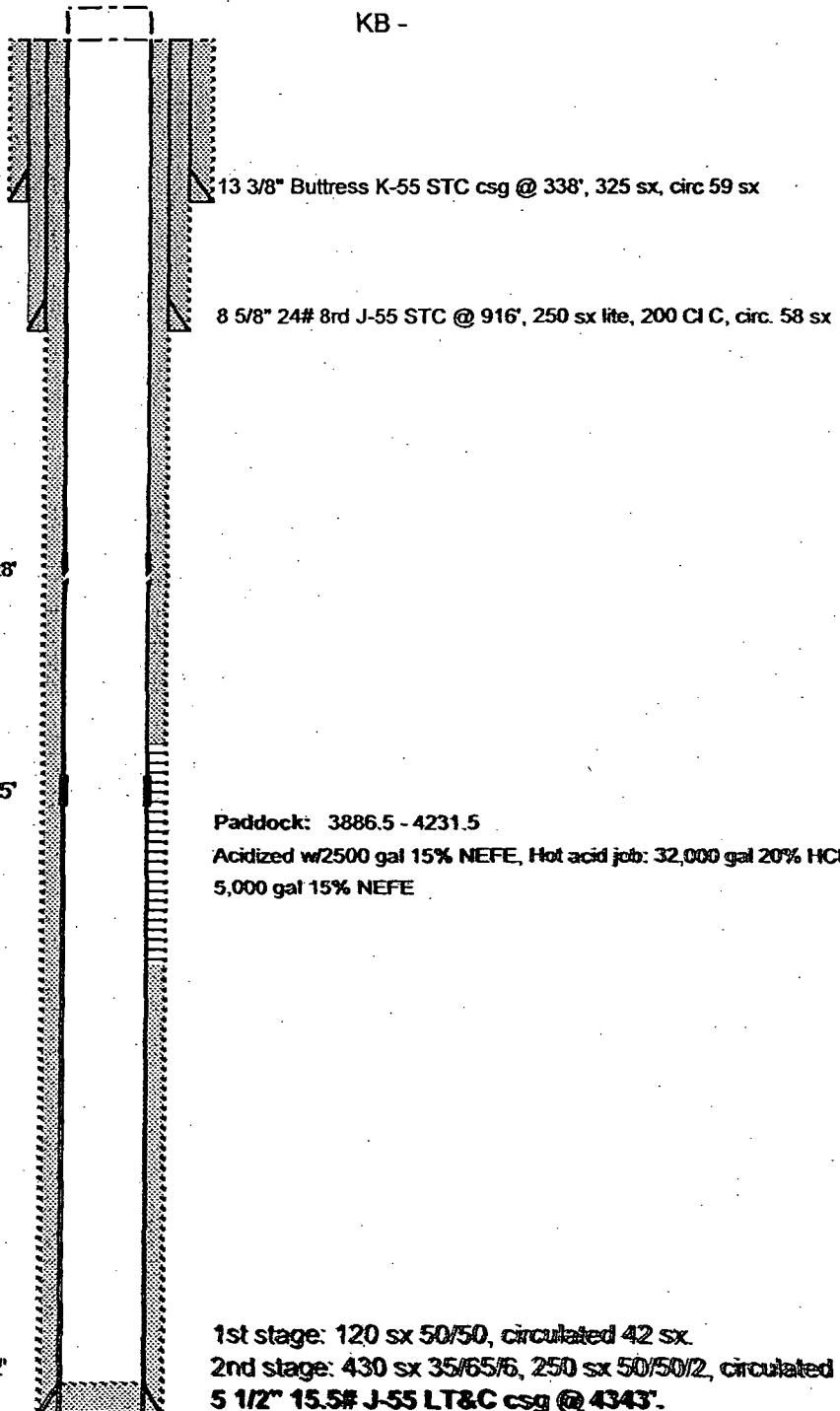
Lease & Well #  
API# 30-015-30929  
SPUD - 1/26/00

White Star Federal #13  
B-29-17S-29E

Active

Elevation - 3612

KB -



# COG Operating LLC

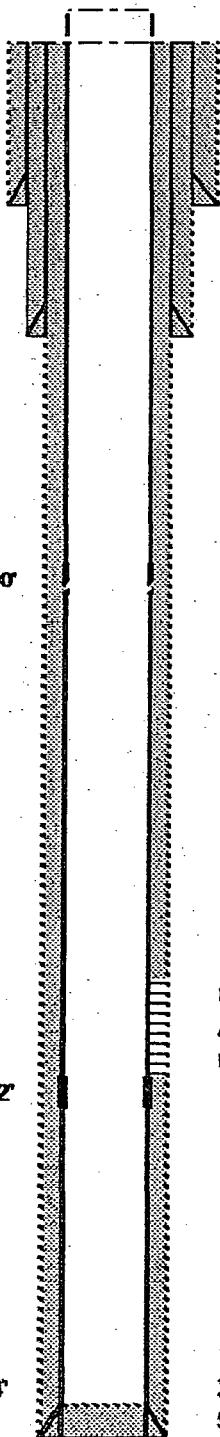
Lease & Well #  
API# 30-015-32356  
SPUD - 7/28/02

White Star Federal #23  
C-29-17S-29E

Active

Elevation - 3622

KB -



13 3/8" 48# J-55 STC csg @ 325', 325 sx, CIRC 51 SX.

8 5/8" 24# 8rd k-55 STC @ 853', 300 sx 35/65/6, 200 xc CI C, circ. 60 sx.

Paddock: 3894 - 4198.5', 86 holes

Acidized w/2,500 gal 15% NEFE

Hot acid job: 32,000/54,000/5,000

Marker J @ 4002'

PBTD - 4364'

1st stage: 180 sx 50/50, circulated 26 sx.

2nd stage: 525 sx 35/65/6, 250 sxs 50/50/2, circulated 68 sx.  
5 1/2" 17# J-55 LT&C csg @ 4377.

# COG Operating LLC

## Lease & Well #

API# 30-015-32339

SPUD -7/3/02

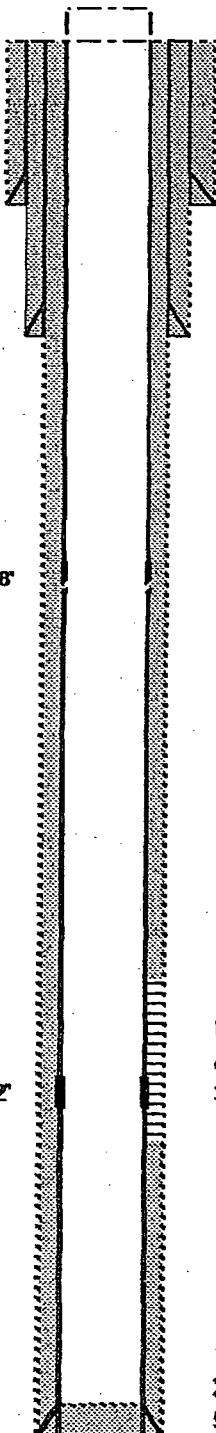
## White Star Federal #24

D-29-17S-28E

Active

Elevation - 3631

KB -



13 3/8" 48# H-40 STC csg @ 381', 375 sx, ready mix to surface.

8 5/8" 24# 8rd k-55 STC @ 854', 500 sx, circ. 55 sx.

Marker J1 @ 3972'

Paddock: 3866.5 - 4132.5, 84 holes

Acidized w/2500 gal 15% NEFE

32,000 gal 20% HCL, 54,000 gall lg, 5,000 gal 15% NEFE.

PBTD - 4289

1st stage: 130 sx 50/50, circulated 36 sx.

2nd stage: 775 sx, circulated 55 sx.

5 1/2" 17# J-55 LT&C csg @ 4304'.

# COG Operating LLC

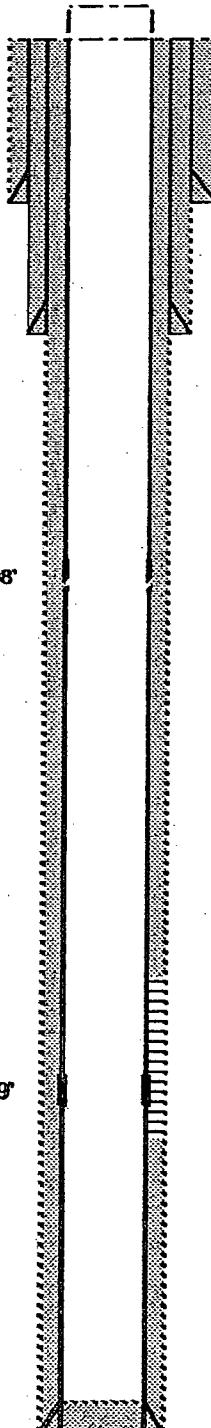
Lease & Well #  
API# 30-015-32509  
SPUD -12/31/02

White Star Federal #25  
C-29-17S-29E

Active

Elevation - 3616

KB -



Paddock: 3848.5 - 4215.5, 108 holes  
Acidized w/2500 gal 15% NEFE  
32,000 gal 20% HCL, 54,000 gal lg, 5,000 gal 15% NEFE.

1st stage: 130 sx 50/50, circulated 46 sx.  
2nd stage: 725 sx, circulated 98 sx.  
5 1/2" 17# J-55 LT&C csg @ 4364.

# COG Operating LLC

Lease & Well #

API# 30-015-32531

SPUD -12/30/02

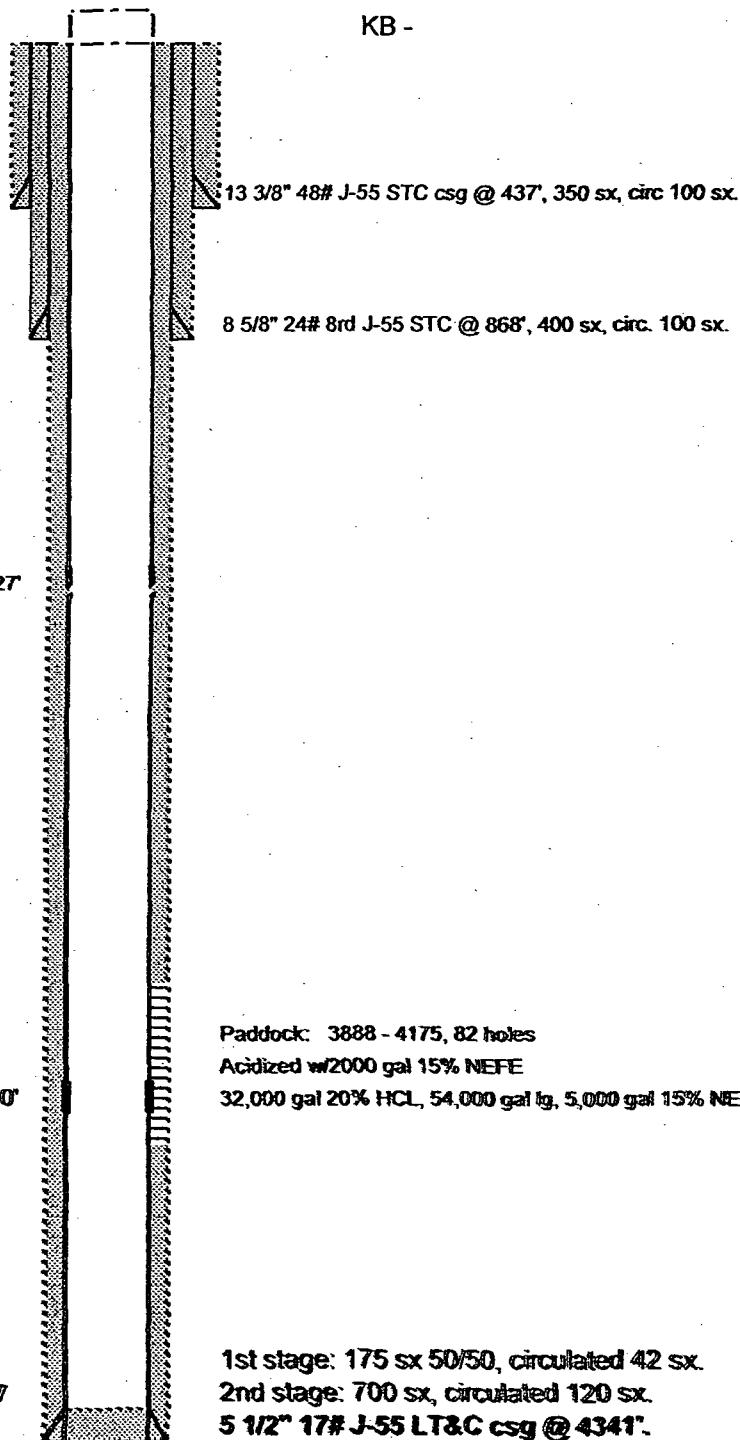
White Star Federal #26

D-29-17S-29E

Active

Elevation - 3618

KB -



# Legacy Reserves Operating Company

Active

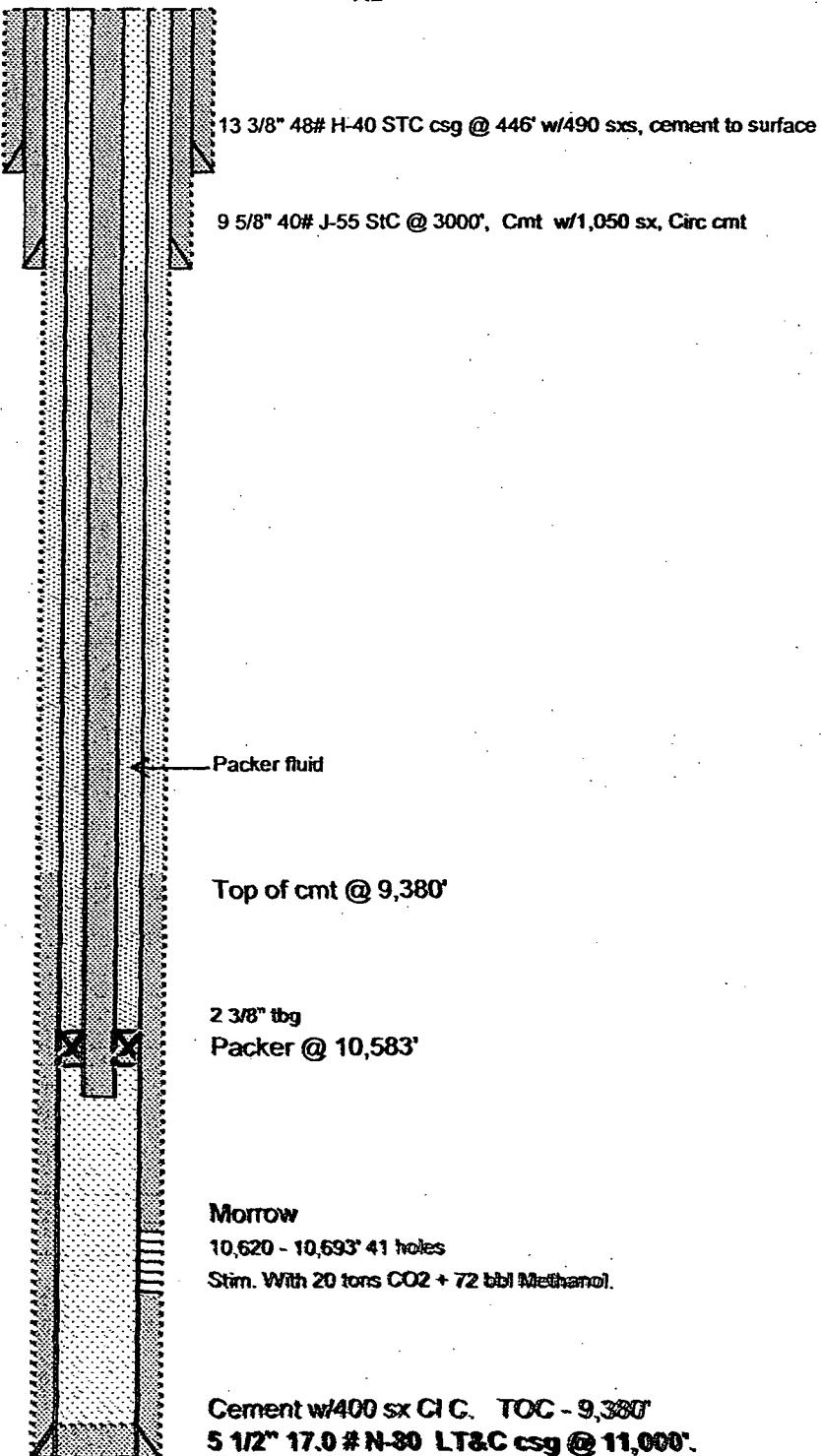
Lease & Well #  
API# 30-015-31813

Empire 29 Fed #1

Eddy County, NM  
Sec 29 T17S R29E 540 FNL & 370 FWL

Elevation GL - 3626

KB



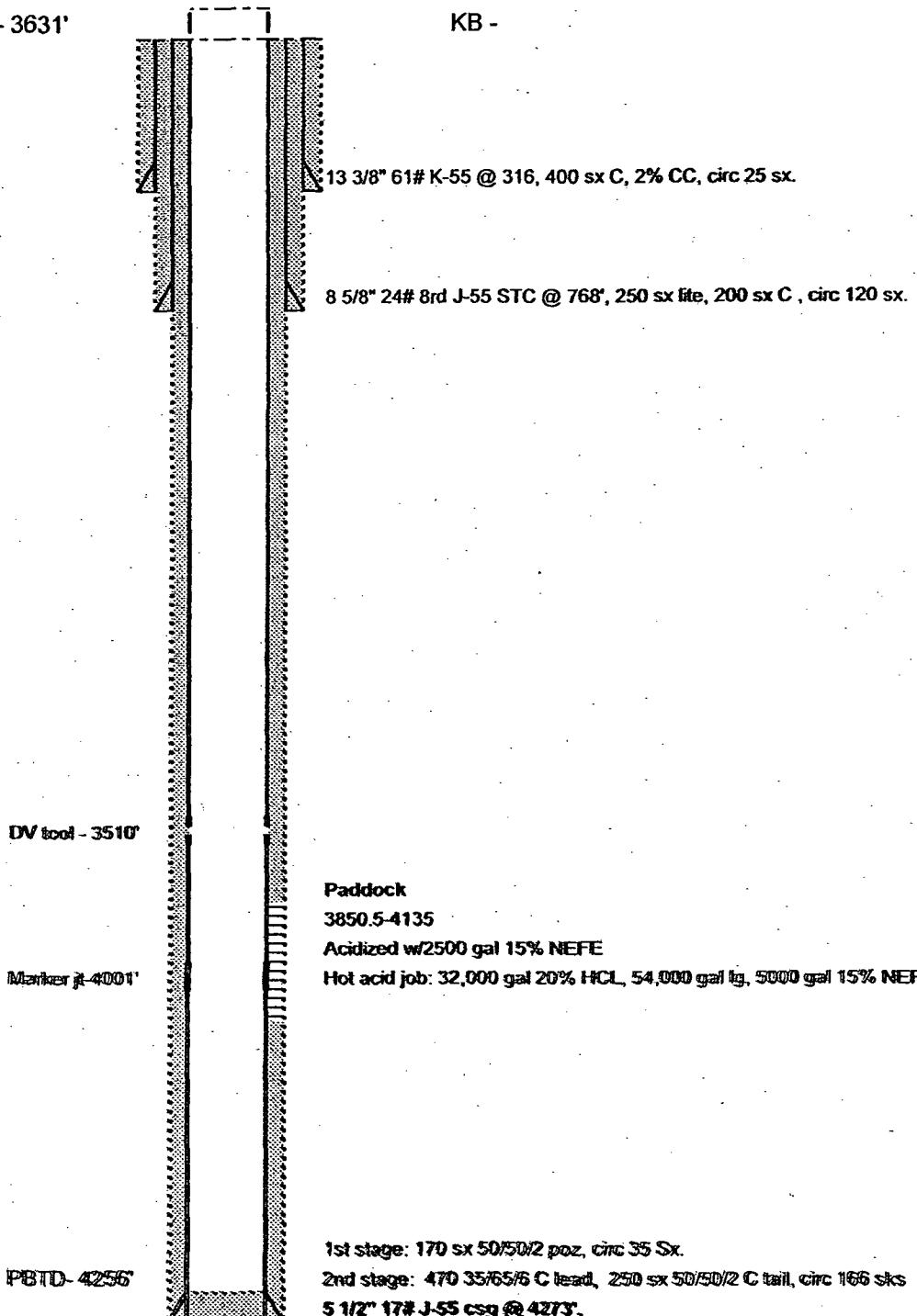
# COG Operating LLC

Active

Lease & Well # Gold Star Federal #4  
API# 30-015-30309  
A-30-17S29E

SPUD- 6/17/99

Elevation - 3631'



# COG Operating LLC

Active

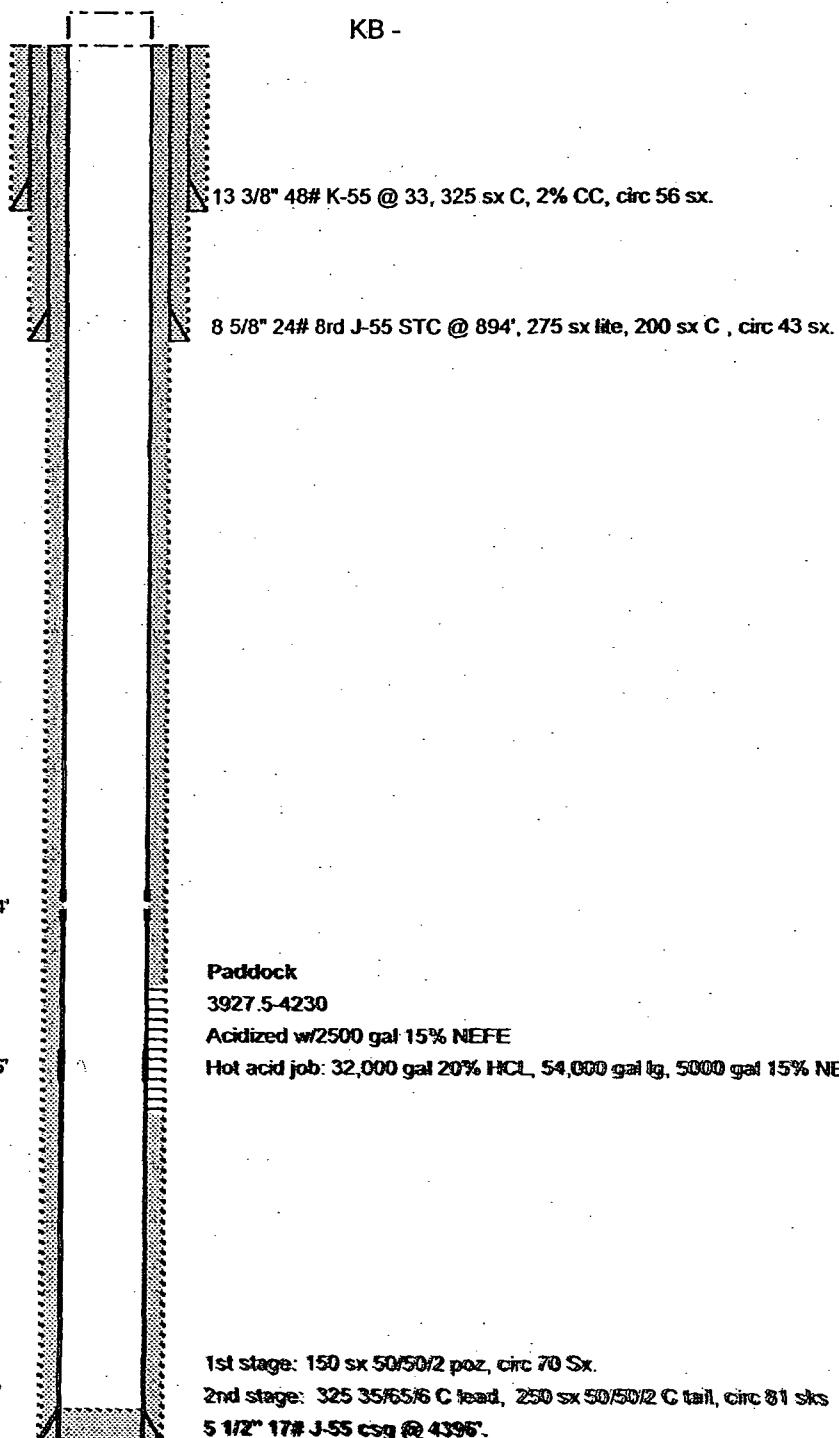
Lease & Well #  
API# 30-015-31703

Gold Star Federal #5  
A-30-17S-29E

SPUD- 6/8/01

Elevation - 3626'

KB -



# COG Operating LLC

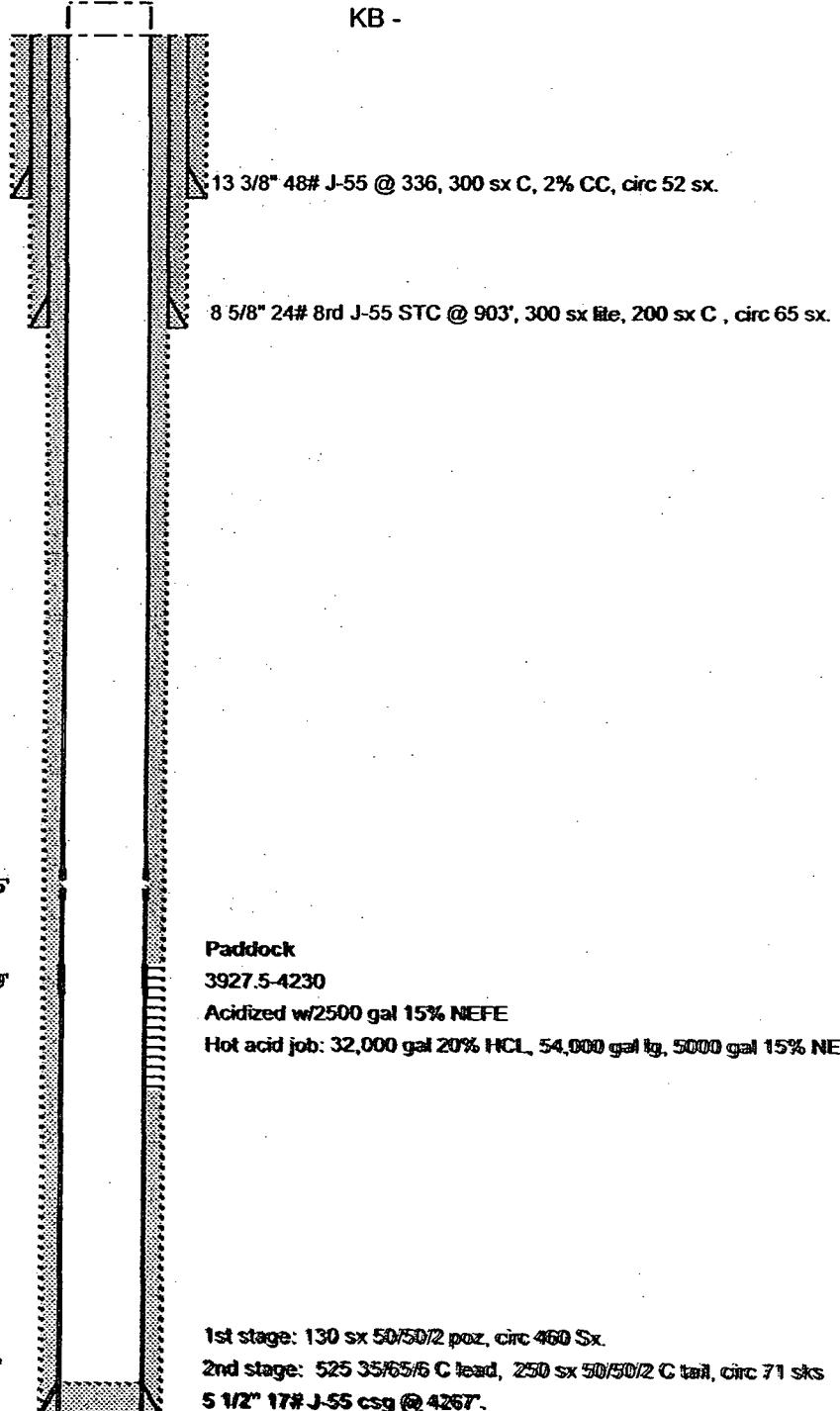
Active

Lease & Well # Gold Star Federal #6  
API# 30-015-32285 A-30-17S-29E

SPUD- 6/22/02

Elevation - 3637'

KB -



VII.

COG Operating, LLC  
Mesquite State #15  
API# 30-015-34496  
Sec 20, T17S, R29E, Unit L  
1750' FSL & 990' FWL  
Eddy County, NM

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
  - **Average daily rate/volume 1,000 BWPD, Maximum daily rate/volume 2,000 BWPD**
2. Whether the system is open or closed;
  - **Closed System**
3. Proposed average and maximum injection pressure;
  - **Average injection pressure 1,000 psi, Maximum injection pressure 2,000 psi**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  - **Formation water analysis attached**
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.).
  - **Not for disposal purposes**



Catalyst Oilfield Services  
 11999 E Hwy 158  
 Gardendale, TX 79758  
 (432) 563-0727  
 Fax: (432) 224-1038

## Water Analysis Report

|               |                        |                |      |
|---------------|------------------------|----------------|------|
| Customer:     | COG Operating LLC - NM | Sample #:      | 6512 |
| Area:         | Artesia                | Analysis ID #: | 160  |
| Lease:        | MESQUITE STATE         |                |      |
| Location:     | 15 0                   |                |      |
| Sample Point: | Wellhead               |                |      |

| Sampling Date:      | 10/18/2006    | Anions                            |       | Cations                       |        |
|---------------------|---------------|-----------------------------------|-------|-------------------------------|--------|
|                     |               | mg/l                              | meq/l | mg/l                          | meq/l  |
| Analysis Date:      | 10/20/2006    |                                   |       |                               |        |
| Analyst:            | Mitchell Labs |                                   |       |                               |        |
| TDS (mg/l or g/m3): | 191754.1      |                                   |       |                               |        |
| Density (g/cm3):    | 1.133         |                                   |       |                               |        |
| Hydrogen Sulfide:   | 19            |                                   |       |                               |        |
| Carbon Dioxide:     | 42            |                                   |       |                               |        |
| Comments:           |               | pH at time of sampling:           | 7     |                               |        |
|                     |               | pH at time of analysis:           |       |                               |        |
|                     |               | pH used in Calculation:           | 7     | Conductivity (micro-ohms/cm): | 395000 |
|                     |               | Temperature @ lab conditions (F): | 75    | Resistivity (ohm meter):      | .0253  |

| Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl |                              |       |                                                |       |                                |       |                                |       |                             |       |        |
|-----------------------------------------------------------------------------|------------------------------|-------|------------------------------------------------|-------|--------------------------------|-------|--------------------------------|-------|-----------------------------|-------|--------|
| Temp                                                                        | Calcite<br>CaCO <sub>3</sub> |       | Gypsum<br>CaSO <sub>4</sub> ·2H <sub>2</sub> O |       | Anhydrite<br>CaSO <sub>4</sub> |       | Celestite<br>SrSO <sub>4</sub> |       | Barite<br>BaSO <sub>4</sub> |       |        |
|                                                                             | °F                           | Index | Amount                                         | Index | Amount                         | Index | Amount                         | Index | Amount                      | Index | Amount |
| 80                                                                          |                              | 1.14  | 30.28                                          | 0.28  | 654.88                         | 0.30  | 546.26                         | 0.00  | 0.00                        | 0.00  | 0.00   |
| 100                                                                         |                              | 1.16  | 32.90                                          | 0.21  | 522.10                         | 0.30  | 538.98                         | 0.00  | 0.00                        | 0.00  | 0.00   |
| 120                                                                         |                              | 1.18  | 35.82                                          | 0.15  | 395.72                         | 0.32  | 565.19                         | 0.00  | 0.00                        | 0.00  | 0.00   |
| 140                                                                         |                              | 1.21  | 38.73                                          | 0.10  | 279.25                         | 0.36  | 616.73                         | 0.00  | 0.00                        | 0.00  | 0.00   |

**Exhibit VIII**  
**Geological Review**  
**Ground Water Sources**  
**Empire, Empire East, and Loco Hills Fields**  
**Eddy County, New Mexico**

The intervals under consideration for secondary recovery operations include the Glorieta/Paddock and Blinebry formations collectively referred to as the Yeso. Both intervals are in the Leonardian Group of the Lower Permian Age located on the Northwest Shelf of the Delaware Basin in the western part of the Permian Basin.

The injection intervals are the following:

**Continental A #11 (Empire Field)**

- Paddock 3,926'-4,277'
- Blinebry 4,436'-5,088'

**Continental A #12 (Empire Field)**

- Paddock 3,811'-4,044'
- Blinebry 4,300'-5,293'

**Texaco BE #8 (Loco Hills Field)**

- Paddock 4,367'-4,681'
- Blinebry 4,922'-5,721'

**Mesquite St #15 (Empire East Field)**

- Paddock 3,874'-4,215'
- Blinebry 4,336'-5,289'

Produced water from Lower Permian Age rocks is too mineralized to be potable or useable for live stock.

Ground water in Eddy County is obtained from porous and permeable aquifers in consolidated rocks of the Upper Permian and Triassic age and in relatively unconsolidated sediments of Tertiary and Quaternary age.

The area east of the Pecos River is a large area and includes half of Eddy County, generally from T 16 S R 27 E to T 26S R 31E, extending from the Chaves County line south to the Texas State line and east to the Lea County line.

The Triassic System overlies the Rustler formation in Eddy County and is composed of red beds and sandstones of the Dockum group. The lower part of these beds is considered Permian and correlated with Dewey Lake red beds by some geologists. The total thickness of the Dockum group east of Artesia is about 1,000'. Formations of the Dockum group exposed in Eddy County are the Pierce Canyon red beds, the Santa Rosa sandstone and red beds possibly from the Chinle formation.

In the Empire, Empire East, Loco Hills, and Fren Fields, the sandstone beds in the Triassic Dockum group and possibly in the Dewey Lake red beds are the chief sources of ground water. The depth to water in this area is generally less than 300'. Most of the wells in the outcrop area of the Dockum group yield water of better quality than the wells to the west that produce from the Rustler formation. Analyses were made of 21 samples of water from wells probably taking all or part of their water from the Triassic red beds. The hardness of calcium carbonate in the 21 samples ranged from 201 to 3,590 ppm and was more than 1,000 ppm in 14 of the 21 samples. The chloride content ranged from 17 to 785 ppm and was more than 200 ppm in 10 of the samples. Probably about half the wells in the Triassic red beds produce water that is considered usable for domestic purposes. None of the wells in the Triassic red beds produce water too highly mineralized for stock.

A review of all geologic map data and well as visual searches by field personnel did not indicate the presence of any windmills in the areas of review for the proposed conversions.

In summary, ground water in the Empire, Empire East, Loco Hills, and Fren areas for stock and domestic use can be obtained from wells in the Triassic red beds at depths up to 300'. Water is generally of fair quality but locally impotable. The injection intervals for the proposed conversions are in the Yeso group in the lower Permian age rocks at about 3,800' to almost 5,300'. No contamination of the known shallow potable ground waters is expected from the proposed deeper secondary operations due to over 3,500' of vertical separation between them. There was no indication of any use of ground water aquifers in the areas of reviews for the proposed conversions.

From Geology and Ground-Water Resources of Eddy County, New Mexico by G. E. Hendrickson and R. S. Jones. Ground-Water Report 3, New Mexico Bureau of Mines and Mineral Resources, 1952

Submit 3 Copies To Appropriate District Office  
**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
**District II**  
 1301 W. Grand Ave., Artesia, NM 88210  
**District III**  
 10 Rio Brazos Rd., Aztec, NM 87410  
**District IV**  
 220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources  
 OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-103  
 May 27, 2004

WELL API NO.

30-015-34496

Indicate Type of Lease

STATE  FEE

State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Mesquite State

8. Well Number 15

9. OGRID Number

229137

10. Pool name or Wildcat 96610  
 Empire; Yeso, East

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well  Other

2. Name of Operator

COG Operating LLC

3. Address of Operator

550 W. Texas Ave., Suite 1300 Midland, TX 79701

Well Location

Unit Letter L : 1750' feet from the South line and 990' feet from the West line

Section 20 Township 17S Range 29E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

3637 GR

Pit or Below-grade Tank Application  or Closure

Pit type \_\_\_\_\_ Depth to Groundwater \_\_\_\_\_ Distance from nearest fresh water well \_\_\_\_\_ Distance from nearest surface water \_\_\_\_\_

Pit Liner Thickness: mil Below-Grade Tank: Volume bbls; Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 OR ALTER CASING  MULTIPLE COMPL

SUBSEQUENT REPORT OF:

REMEDIAL WORK  ALTERING CASING   
 COMMENCE DRILLING OPNS.  P AND A   
 CASING/CEMENT JOB

OTHER: Convert in injection

OTHER:

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating, LLC would like permission to convert this oil well into an injection well.

Please see the attached procedure.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit  or an (attached) alternative OCD-approved plan .

SIGNATURE 

TITLE Regulatory Analyst

DATE 12/10/09

Type or print name Kanicia Carrillo  
For State Use Only

E-mail address: kcarrillo@conchoresources.com

Telephone No. 432-685-4332

APPROVED BY: \_\_\_\_\_  
 Conditions of Approval (if any): \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

**COG Operating Procedure**

**Mesquite State #15**

**API# 30-015-34496**

**Sec 20, T17S, R29E, Unit L**

**1750' FSL & 990' FWL**

**Eddy County, NM**

**Objective:** Convert the well from a Paddock and Blinebry producer to a Paddock and Blinebry water injection well with down hole regulator. (Pumping unit will be moved prior to conversion.)

**Procedure:**

1. MIRU, Tag PBTD, POH w rods, pump, and tbg. (PBTD @ 5396')  
60 - 7/8" T66 rods, 136 - 3/4" T66 rods, 12 - 7/8" T66 rods.  
169 jts 2 7/8" tbgs.
2. Run a 4 3/4" bit and 5 1/2" csg scraper and clean out to PBTD.
3. TIH w PKR and 2 7/8" tbgs and set PKR @ 5045'.
4. Acidize Blineberry perfs 5145'-5288' with 1,000 g 15%. Flowback and swab if necessary.
5. TIH w PKR and RBP and set RBP @ 5100' and PKR at 4633'.
6. Acidize Blineberry perfs 4733'-5042' with 1,000 g 15%. Flowback and swab if necessary.
7. TIH w PKR and RBP and set RBP @ 4625' and PKR @ 4236'.
8. Acidize the Blineberry perfs 4336'-4573' with 1,000 g 15%. Flowback and swab if necessary.
9. TIH w PKR and RBP and set RBP @ 4250' and PKR @ 3773'.
10. Acidize the Paddock perfs 3873'-4214' with 1,000 g 15%. Flowback and swab if necessary.
11. TIH with 2 7/8" injection tbgs and injection Regulator PKR. Set Lower PKR at 4300' and Upper Packer at 3773'. Test csg and tbgs to 2000 psi. Circulate 57 bbls of PKR fluid between 2 7/8" tbgs and 5 1/2" csg.
12. Begin injection as permitted on the C108.

# COG Operating LLC

Mesquite State #15

API# 30-015-34496

Sec 20, T17S, R29E, Unit L

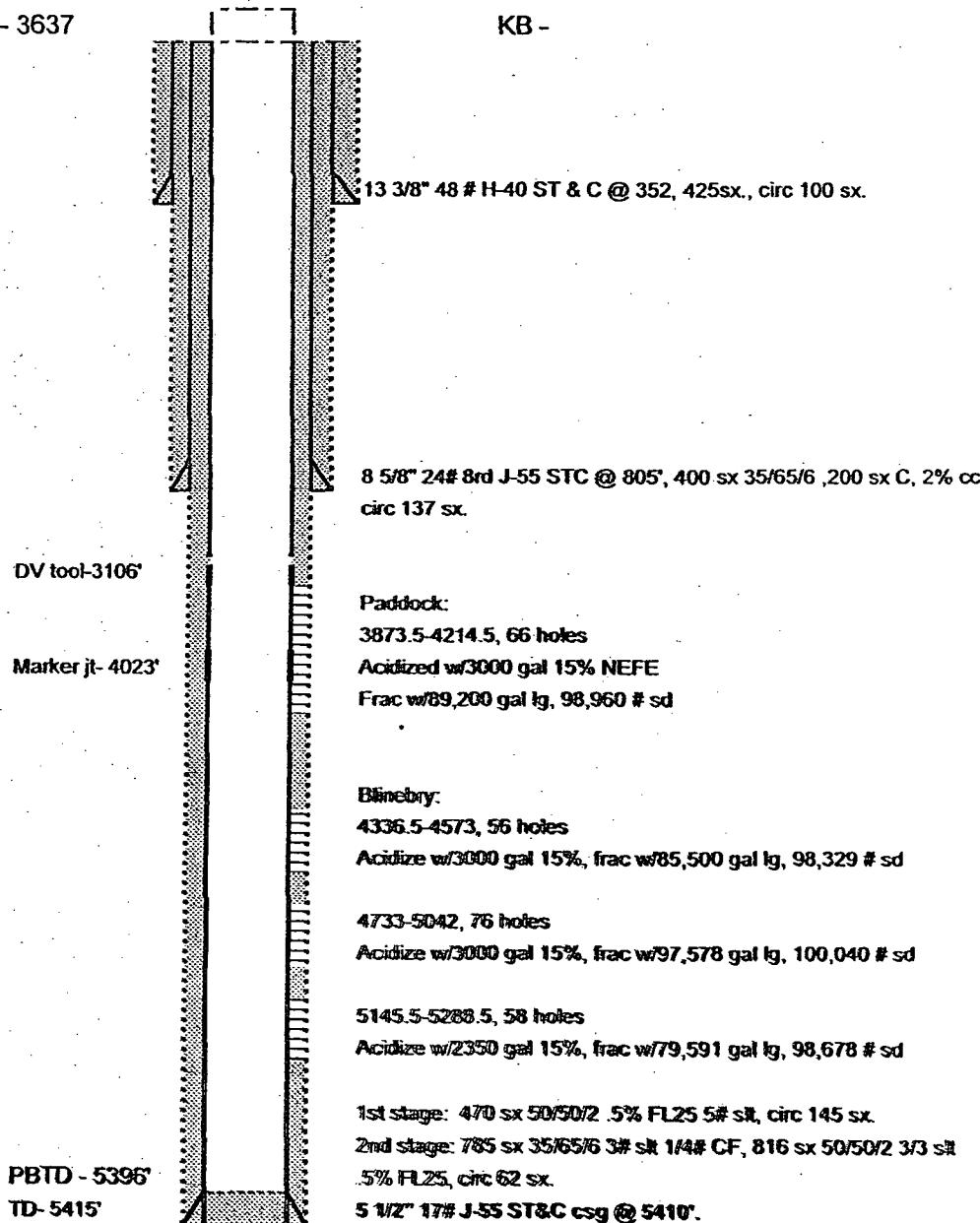
1750' FSL & 990' FWL

Eddy County, New Mexico

Spudded 3/12/06

Elevation - 3637

KB -



### III. Well Data

#### COG Operating LLC

Mesquite State #15—Proposed Conversion

API# 30-015-34496

Sec 20, T17S, R29E, Unit L

1750' FSL & 990' FWL

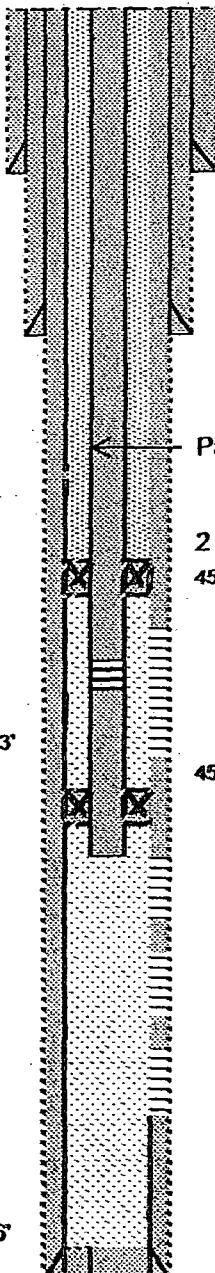
Eddy County, New Mexico

Spudded 3/12/06

ACTIVE

Elevation - 3637

KB -



DV tool-3106'

1 1/2" RF flow reg.  
316 stainless steel

Marker jt- 4023'

PBD - 5396'  
TD- 5415'

X.

## Well Test - Oil, Gas, Water

| Begin Date/Time          | End Date/Time | Test Hours | Oil/Cond Volume | Frm Gas Volume | Water Volume | Info Only | Remarks |
|--------------------------|---------------|------------|-----------------|----------------|--------------|-----------|---------|
| <b>Mesquite State 15</b> |               |            |                 |                |              |           |         |
| 9/27/2009                | 9/28/2009     | 24         | 11.00           | 93             | 10.00        | No        |         |
| 9/28/2009                | 9/29/2009     | 24         | 8.00            | 86             | 1.00         | No        |         |

Logs on file with NMOCD.

XI.

**COG Operating Procedure  
Mesquite State #15  
API# 30-015-34496  
Sec 20, T17S, R29E, Unit L  
1750' FSL & 990' FWL  
Eddy County, NM**

**There are no fresh water wells in this area.**

**Exhibit XII**  
**Geological Statement**

Concho Resources has examined available geological, seismic, and engineering data and finds no evidence of open faults or any other hydrologic connection between the water flood zone and any underground source of drinking water.



December 31, 2009

Mewbourne Oil Company  
500 W Texas Ave  
Suite 1020  
Midland, TX 79701

Certified Mail Article Number: 7009 2250 0001 0942 3554

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-344496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

  
Kanicia Carrillo  
Regulatory Analyst

7009 2250 0001 0942 3554

|                                                                                              |         |
|----------------------------------------------------------------------------------------------|---------|
| U.S. Postal Service                                                                          |         |
| CERTIFIED MAIL RECEIPT                                                                       |         |
| (Domestic Mail Only: No Insurance Coverage Provided)                                         |         |
| For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a> |         |
| OFFICIAL USE                                                                                 |         |
| Postage                                                                                      | \$ 4.80 |
| Certified Fee                                                                                | 2.80    |
| Return Receipt Fee<br>(Endorsement Required)                                                 | 2.30    |
| Restricted Delivery Fee<br>(Endorsement Required)                                            |         |
| Total Postage & Fees                                                                         | \$ 9.90 |
|         |         |
| Sent To Mewbourne Oil Company                                                                |         |
| Street, Apt. No.,<br>or PO Box No. 500 West Texas Avenue                                     |         |
| City, State, ZIP+4 Suite 1020                                                                |         |
| Midland, TX 79701                                                                            |         |

See Reverse for Instructions


[Home](#) | [Help](#) | [Sign In](#)
[Track & Confirm](#)
[FAQs](#)

## Track & Confirm

### Search Results

Label/Receipt Number: **7009 2250 0001 0942 3554**

Class: **Priority Mail®**

Service(s): **Certified Mail™**

**Return Receipt**

Status: **Delivered**

Your item was delivered at 11:52 AM on January 4, 2010 in MIDLAND, TX 79701.

[Go >](#)

#### Detailed Results:

- » Delivered, January 04, 2010, 11:52 am, MIDLAND, TX 79701
- » Acceptance, December 31, 2009, 1:54 pm, MIDLAND, TX 79705

### Notification Options

#### Track & Confirm by email

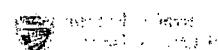
Get current event information or updates for your item sent to you or others by email. [Go >](#)

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[No FEAR Act EEO Data](#)
[FOIA](#)


| <b>U.S. Postal Service™<br/>CERTIFIED MAIL™ RECEIPT<br/>(Domestic Mail Only; No Insurance Coverage Provided)</b>                                   |                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a>                                                       |                                                                     |
| OFFICIAL USE                                                                                                                                       |                                                                     |
| 3554<br>0942<br>0001<br>2250<br>7009                                                                                                               | Postage \$ 4.80                                                     |
|                                                                                                                                                    | Certified Fee 2.80                                                  |
|                                                                                                                                                    | Return Receipt Fee<br>(Endorsement Required) 2.30                   |
|                                                                                                                                                    | Restricted Delivery Fee<br>(Endorsement Required)                   |
|                                                                                                                                                    | Total Postage & Fees \$ 9.90                                        |
|                                                                                                                                                    | DECEMBER 31, 2009<br>MIDLAND, TX 79705<br>U.S.P.S.<br>Delivery Here |
| Sent To: Mewbourne Oil Company<br>Street, Apt. No.,<br>or PO Box No.: 500-West Texas Avenue<br>Suite.1020<br>City, State, ZIP+4: Midland, TX 79701 |                                                                     |
| PS Form 3800, August 2006<br>See Reverse for Instructions                                                                                          |                                                                     |

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

## 1. Article Addressed to:

Mewbourne Oil Company  
500 West Texas Avenue  
Suite 1020  
Midland, TX 79701

**COMPLETE THIS SECTION ON DELIVERY**

## A. Signature

 Agent  
 Addressee

## B. Received by / Printed Name



## C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

## 3. Service Type

- |                                                    |                                                                    |
|----------------------------------------------------|--------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Certified Mail | <input type="checkbox"/> Express Mail                              |
| <input type="checkbox"/> Registered                | <input checked="" type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Insured Mail              | <input type="checkbox"/> C.O.D.                                    |

4. Restricted Delivery? (Extra Fee)  Yes2. Article Number  
(Transfer from service label)

7009 2250 0001 0942 3554

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540



December 31, 2009

Chevron USA Production Company  
11111 S. Wilcrest  
Houston, TX 77099

Certified Mail Article Number: 7009 2250 0001 0942 3523

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-344496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

Continental A State #11  
API# 30-015-34742  
Sec 30, T17S, R29E, Unit F  
1450' FNL & 1907' FWL  
Empire; Yeso Field  
Eddy County, New Mexico

Continental A State #12  
API# 30-015-35052  
Sec 30, T17S, R29E, Unit D  
Empire; Yeso Field  
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Camillo  
Regulatory Analyst


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[FAQs](#)

## Track & Confirm

### Search Results

Label/Receipt Number: **7009 2250 0001 0942 3523**

Class: **Priority Mail®**

Service(s): **Certified Mail™**

**Return Receipt**

Status: **Delivered**

Your item was delivered at 9:15 AM on January 4, 2010 in HOUSTON, TX 77099.

[Track & Confirm](#)

Enter Label/Receipt Number.

[Go >](#)

#### Detailed Results:

- Delivered, January 04, 2010, 9:15 am, HOUSTON, TX 77099
- Arrival at Unit, January 04, 2010, 6:37 am, HOUSTON, TX 77072
- Acceptance, December 31, 2009, 1:55 pm, MIDLAND, TX 79705

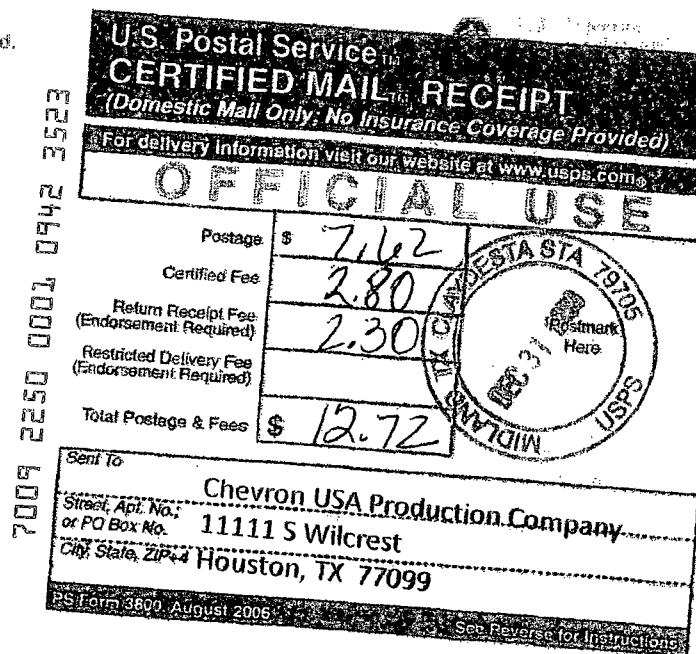
### Notification Options

#### Track & Confirm by email

Get current event information or updates for your item sent to you or others by email. [\(Go >\)](#)

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**SENDER: COMPLETE THIS SECTION**

- Complete Items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**1. Article Addressed to:**

Chevron USA Production Company  
11111 S Wilcrest  
Houston, TX 77099

**2. Article Number***(Transfer from service label)*

7009 2250 0001 0942 3523

**COMPLETE THIS SECTION ON DELIVERY****A. Signature***Xn. C. H.* Agent  
 Addressee**B. Received by (Printed Name)***b. hoo, sc***C. Date of Delivery***01/01/05***D. Is delivery address different from item 1?** Yes  
 If YES, enter delivery address below:  
 No**3. Service Type**

- |                                                    |                                                                    |
|----------------------------------------------------|--------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Certified Mail | <input type="checkbox"/> Express Mail                              |
| <input type="checkbox"/> Registered                | <input checked="" type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Insured Mail              | <input type="checkbox"/> C.O.D.                                    |

**4. Restricted Delivery? (Extra Fee)** Yes



December 31 2009

Clayton Williams  
Six Desta Drive  
Suite 3000  
Midland, TX 79705

Certified Mail Article Number: 7009 2250 0001 0942 3547

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-344496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo  
Regulatory Analyst

3547  
0942  
0001  
0000  
2250  
7009

|                                                                                              |         |
|----------------------------------------------------------------------------------------------|---------|
| U.S. Postal Service                                                                          |         |
| CERTIFIED MAIL™ RECEIPT                                                                      |         |
| (Domestic Mail Only; No Insurance Coverage Provided)                                         |         |
| For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a> |         |
| OFFICIAL USE                                                                                 |         |
| Postage                                                                                      | \$ 4.80 |
| Certified Fee                                                                                | 2.80    |
| Return Receipt Fee<br>(Endorsement Required)                                                 | 2.30    |
| Restricted Delivery Fee<br>(Endorsement Required)                                            |         |
| Total Postage & Fees                                                                         | \$ 9.90 |
| Sent to Clayton Williams                                                                     |         |
| Street, Apt. No.;<br>or PO Box No.                                                           |         |
| Suite 3000                                                                                   |         |
| City, State, ZIP+4<br>Midland, TX 79705                                                      |         |

CLAYDESTA, TX 79705  
RECEIVED  
10-05-2009  
MIDLAND, TX  
USPS

PS Form 3800, August 2006  
See Reverse for Instructions


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## Track & Confirm

### Search Results

Label/Receipt Number: **7009 2250 0001 0942 3547**

Class: **Priority Mail®**

Service(s): **Certified Mail™**

[Return Receipt](#)

Status: **Delivered**

Your item was delivered at 2:23 PM on January 4, 2010 in MIDLAND, TX 79705.

[Go >](#)

#### Detailed Results:

- Delivered, January 04, 2010, 2:23 pm, MIDLAND, TX 79705
- Acceptance, December 31, 2009, 1:54 pm, MIDLAND, TX 79705

### Notification Options

#### Track & Confirm by email

Get current event information or updates for your item sent to you or others by email.

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Enter Label/Receipt Number.

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No FEAR ,

| U.S. Postal Service<br><b>CERTIFIED MAIL RECEIPT</b><br><i>(Domestic Mail Only. No Insurance Coverage Provided)</i>                                                                                                                                                                                                     |                                 |         |                  |                                    |                 |                    |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------|------------------|------------------------------------|-----------------|--------------------|---------------------------------|
| For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a>                                                                                                                                                                                                                            |                                 |         |                  |                                    |                 |                    |                                 |
| <b>OFFICIAL USE</b>                                                                                                                                                                                                                                                                                                     |                                 |         |                  |                                    |                 |                    |                                 |
| Postage                                                                                                                                                                                                                                                                                                                 | \$ 4.80                         |         |                  |                                    |                 |                    |                                 |
| Certified Fee                                                                                                                                                                                                                                                                                                           | 2.80                            |         |                  |                                    |                 |                    |                                 |
| Return Receipt Fee<br>(Endorsement Required)                                                                                                                                                                                                                                                                            | 2.30                            |         |                  |                                    |                 |                    |                                 |
| Restricted Delivery Fee<br>(Endorsement Required)                                                                                                                                                                                                                                                                       |                                 |         |                  |                                    |                 |                    |                                 |
| Total Postage & Fees                                                                                                                                                                                                                                                                                                    | \$ 9.90                         |         |                  |                                    |                 |                    |                                 |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Sent To</td> <td>Clayton Williams</td> </tr> <tr> <td>Street, Apt. No.,<br/>or PO Box No.</td> <td>Six Desta Drive</td> </tr> <tr> <td>City, State, ZIP+4</td> <td>Suite 3000<br/>Midland, TX 79705</td> </tr> </table> |                                 | Sent To | Clayton Williams | Street, Apt. No.,<br>or PO Box No. | Six Desta Drive | City, State, ZIP+4 | Suite 3000<br>Midland, TX 79705 |
| Sent To                                                                                                                                                                                                                                                                                                                 | Clayton Williams                |         |                  |                                    |                 |                    |                                 |
| Street, Apt. No.,<br>or PO Box No.                                                                                                                                                                                                                                                                                      | Six Desta Drive                 |         |                  |                                    |                 |                    |                                 |
| City, State, ZIP+4                                                                                                                                                                                                                                                                                                      | Suite 3000<br>Midland, TX 79705 |         |                  |                                    |                 |                    |                                 |
| <small>PS Form 3800, August 2006</small> <small>See Reverse for Instructions</small>                                                                                                                                                                                                                                    |                                 |         |                  |                                    |                 |                    |                                 |

**SENDER: COMPLETE THIS SECTION**

- Complete Items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**1. Article Addressed to:**

Clayton Williams  
Six Desta Drive  
Suite 3000  
Midland, TX 79705

**COMPLETE THIS SECTION ON DELIVERY****A. Signature***Andy Thomas* Agent  
 Addressee**B. Received by (Printed Name)**

1-4

 Yes  
 No**D. Is delivery address different from item 1?**

If YES, enter delivery address below:

**3. Service Type** Certified Mail     Express Mail  
 Registered     Return Receipt for Merchandise  
 Insured Mail     C.O.D.**4. Restricted Delivery? (Extra Fee)** Yes**2. Article Number**

(Transfer from service label)

7009 2250 0001 0942 3547

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540



December 31, 2009

Fasken Oil & Ranch  
303 West Wall Avenue  
Suite 1800  
Midland, TX 79701

Certified Mail Article Number: 7009 2250 0001 0942 3516

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-344496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

Continental A State #11  
API# 30-015-34742  
Sec 30, T17S, R29E, Unit F  
1450' FNL & 1907' FWL  
Empire; Yeso Field  
Eddy County, New Mexico

Continental A State #12  
API# 30-015-35052  
Sec 30, T17S, R29E, Unit D  
Empire; Yeso Field  
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo  
Regulatory Analyst


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[FAQs](#)

## Track & Confirm

### Search Results

Label/Receipt Number: 7009 2250 0001 0942 3516

Class: Priority Mail®

Service(s): Certified Mail™  
Return Receipt

Status: Delivered

Your item was delivered at 10:08 AM on January 4, 2010 in MIDLAND, TX 79701.

[Go >](#)

#### Detailed Results:

- Delivered, January 04, 2010, 10:08 am, MIDLAND, TX 79701
- Acceptance, December 31, 2009, 1:50 pm, MIDLAND, TX 79705

### Notification Options

#### Track & Confirm by email

Get current event information or updates for your item sent to you or others by email. [Go >](#)

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| U.S. Postal Service<br><b>CERTIFIED MAIL RECEIPT</b><br><i>(Domestic Mail Only. No Insurance Coverage Provided)</i> |                              |
|---------------------------------------------------------------------------------------------------------------------|------------------------------|
| <a href="#">For delivery information visit our website at <u>www.usps.com</u></a>                                   |                              |
| <b>OFFICIAL USE</b>                                                                                                 |                              |
| 7009                                                                                                                | 3516<br>2250<br>0001<br>0942 |
| Postage                                                                                                             | \$ 4.80                      |
| Certified Fee                                                                                                       | 2.80                         |
| Return Receipt Fee<br>(Endorsement Required)                                                                        | 2.30                         |
| Restricted Delivery Fee<br>(Endorsement Required)                                                                   |                              |
| Total Postage & Fees                                                                                                | \$ 9.90                      |
| <b>Sent To</b><br>Fasken Oil & Ranch<br>303 West Wall Avenue<br>Suite 1800<br>Midland, TX 79701                     |                              |
| <small>PS Form 11-3800A (August 2006) * See Reverse for Instructions</small>                                        |                              |

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**1. Article Addressed to:**

Fasken Oil & Ranch  
303 West Wall Avenue  
Suite 1800  
Midland, TX 79701

**2. Article Number**

(Transfer from service label)

7009 2250 0001 0942 3516

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY****A. Signature**

*Carol Hollings*

Agent  
 Addressee

**B. Received by (Printed Name)**

*Carol Hollings*

**C. Date of Delivery**

1-14-10

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

**3. Service Type**

- Certified Mail  Express Mail
- Registered  Return Receipt for Merchandise
- Insured Mail  C.O.D.

**4. Restricted Delivery? (Extra Fee)**

Yes



January 15, 2010

Cimarex Energy Company  
600 N Marienfeld  
Suite 600  
Midland, TX 79701

Certified Mail Article Number: 7009 2250 0001 0942 3929

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-34496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo  
Regulatory Analyst

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
*(Domestic Mail Only. No Insurance Coverage Provided)*

For delivery information visit our website at [www.usps.com](http://www.usps.com)

|                                                   |          |
|---------------------------------------------------|----------|
| <b>OFFICIAL USE</b>                               |          |
| Postage                                           | \$ 4.90  |
| Certified Fee                                     | 2.80     |
| Return Receipt Fee<br>(Endorsement Required)      | 2.30     |
| Restricted Delivery Fee<br>(Endorsement Required) | 0.00     |
| Total Postage & Fees                              | \$ 10.00 |


  
 MIDLAND TX CLERK JAN 15 2010  
 Postmark  
 Hand

|         |                                                                            |  |
|---------|----------------------------------------------------------------------------|--|
| Sent To | Cimarex Energy Company<br>600 N Marienfeld, Suite 600<br>Midland, TX 79701 |  |
|---------|----------------------------------------------------------------------------|--|

PS Form 3800, August 2005 | See Reverse for Instructions

|                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>SENDER: COMPLETE THIS SECTION</b>                                                                                                                                                                                                                                                                                                                                                                                                   |  | <b>COMPLETE THIS SECTION ON DELIVERY</b>                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li><input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you.</li> <li><input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul> |  | <p>A. Signature</p> <p></p> <p><input checked="" type="checkbox"/> Agent      <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <b>Sadie Garcia</b></p> <p>C. Date of Delivery <b>1/19/10</b></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes<br/>If YES, enter delivery address below:</p> |  |
| <p>1. Article Addressed to:</p> <p style="margin-left: 20px;">Cimarex Energy Company<br/>600 N Marienfeld, Suite 600<br/>Midland, TX 79701</p>                                                                                                                                                                                                                                                                                         |  | <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail      <input type="checkbox"/> Express Mail<br/> <input type="checkbox"/> Registered      <input type="checkbox"/> Return Receipt for Merchandise<br/> <input type="checkbox"/> Insured Mail      <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>                                               |  |
| <p>2. Article Number<br/>(Transfer from service label)</p> <p style="text-align: right;"><b>7009 2250 0001 0942 3929</b></p>                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## Kanicia Castillo

---

**From:** U.S.\_Postal\_Service\_ [U.S.\_Postal\_Service@usps.com]  
**Sent:** Wednesday, January 20, 2010 4:30 AM  
**To:** Kanicia Castillo  
**Subject:** USPS Shipment Info for 7009 2250 0001 0942 3929

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3929

Service Type: Certified Mail(TM)

| Shipment Activity | Location         | Date & Time      |
|-------------------|------------------|------------------|
| Delivered         | MIDLAND TX 79701 | 01/19/10 11:51am |
| Arrival at Unit   | MIDLAND TX 79701 | 01/16/10 5:07am  |

Reminder: Track & Confirm by email

Date of email request: 01/19/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at  
<http://www.usps.com/shipping/trackandconfirm.htm>

---

USPS has not verified the validity of any email addresses submitted via its online Track & Confirm tool.

For more information, or if you have additional questions on Track & Confirm services and features, please visit the Frequently Asked Questions (FAQs) section of our Track & Confirm site at <http://www.usps.com/shipping/trackandconfirmfaqs.htm>



January 15, 2010

Legacy Reserves, LP  
303 W Wall Street  
Suite 1400  
Midland, TX 79701

Certified Mail Article Number: 7009 2250 0001 0942 3936

Re: Application for injection well on the:

Mesquite State #15  
API# 30-015-34496  
Sec 20, 17S, R29E, Unit L  
1750' FSL & 990' FWL  
Empire; Yeso, East Field  
Eddy County, New Mexico

To Whom It May Concern:

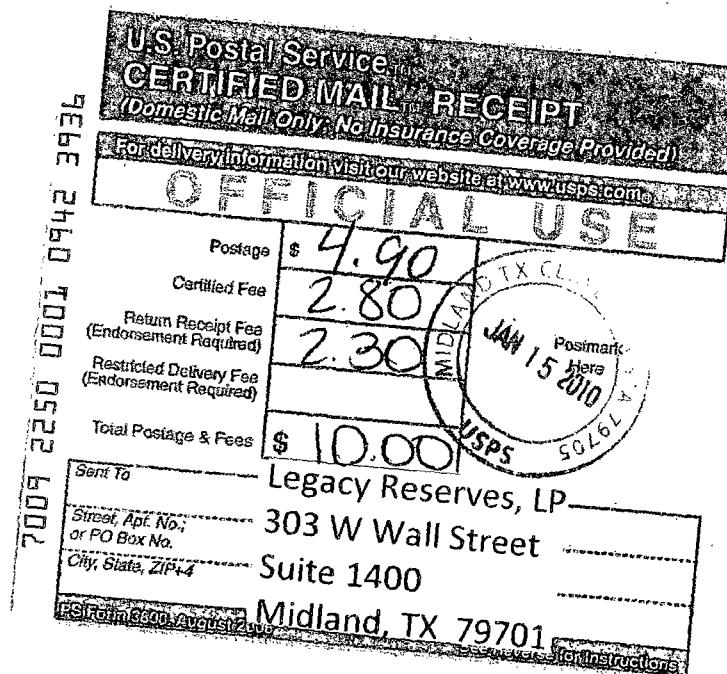
This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM to convert a producing well into a injection well. We will be injecting, for the purpose of secondary recovery, into the Paddock and Blinebry which is consolidated within the Yeso pool. Paddock Perfs are 3873.5 – 4114.5, Blinebry perfs are 4336.5 – 4573.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3440.

Sincerely,

COG Operating LLC

Kanicia Carrillo  
Regulatory Analyst



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Legacy Reserves, LP  
 303 W Wall Street  
 Suite 1400  
 Midland, TX 79701

**COMPLETE THIS SECTION ON DELIVERY**

Signature

|                                                                                   |                                    |
|-----------------------------------------------------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> Agent                                         | <input type="checkbox"/> Addressee |
| <b>B. Received by (Printed Name)</b>                                              |                                    |
| <i>JAPEN INGLE</i>                                                                |                                    |
| <b>C. Date of Delivery</b>                                                        |                                    |
| JUN 15 2010                                                                       |                                    |
| <b>D. Is delivery address different from item 1? <input type="checkbox"/> Yes</b> |                                    |
| If YES, enter delivery address below: <input type="checkbox"/> No                 |                                    |

3. Service Type

- |                                                    |                                                         |
|----------------------------------------------------|---------------------------------------------------------|
| <input checked="" type="checkbox"/> Certified Mail | <input type="checkbox"/> Express Mail                   |
| <input type="checkbox"/> Registered                | <input type="checkbox"/> Return Receipt for Merchandise |
| <input type="checkbox"/> Insured Mail              | <input type="checkbox"/> C.O.D.                         |

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number  
 (Transfer from service label)

7009 2250 0001 0942 3936

## Kanicia Castillo

---

**From:** U.S.\_Postal\_Service\_ [U.S.\_Postal\_Service@usps.com]  
**Sent:** Wednesday, January 20, 2010 9:47 AM  
**To:** Kanicia Castillo  
**Subject:** USPS Shipment Info for 7009 2250 0001 0942 3936

This is a post-only message. Please do not respond.

Kanicia Castillo has requested that you receive the current Track & Confirm information, as shown below.

Current Track & Confirm e-mail information provided by the U.S. Postal Service.

Label Number: 7009 2250 0001 0942 3936

Service Type: Certified Mail(TM)

| Shipment Activity | Location         | Date & Time     |
|-------------------|------------------|-----------------|
| Delivered         | MIDLAND TX 79701 | 01/19/10 1:07pm |

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# Affidavit of Publication

NO.

20962

STATE OF NEW MEXICO

County of Eddy:

GARY D. SCOTT

being duly

sworn, says: That he is the PUBLISHER of The

Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and county and state, and that the here to attached

## Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive week/days on the same

day as follows:

First Publication December 24, 2009Second Publication  Third Publication  Fourth Publication  Fifth Publication  

Subscribed and sworn to before me this

24 Day December 2010



OFFICIAL SEAL

Jo Morgan

NOTARY PUBLIC STATE OF NEW MEXICO

My commission expires: 6/6/2012

Notary Public, Eddy County, New Mexico

# Copy of Publication:

## LEGAL NOTICE

COG Operating, LLC, is applying to convert four existing oil wells to water injection wells in Eddy County, New Mexico. The four wells, details, and locations are the following:

Continental A State #11, located in the northwest quarter of section 30, T17S, R29E, Unit F, 1450' FNL & 1907' FWL, Empire Field, Yoso oil pool.

Continental A State #12, located in the northwest quarter of section 30, T17S, R29E, Unit D, 330' FNL & 583' FWL, Empire Field, Yoso oil pool.

Mesquite State #15, located in the southwest quarter of section 20, T17S, R29E, Unit L, 1750' FSL & 990' FWL, Empire East Field, Yoso oil pool.

Texaco BE #8, located in the northeast quarter of section 16, T17S, R30E, Unit B, 330' FNL & 2,310' FEL, Loco Hills Field, Yoso oil pool.

Water injection will be in the Paddock and Blinberry formations from approximately 3,800' to 5,300' at a maximum rate of 2,000 barrels of water per day and at a maximum surface pressure of 2,000 psig. Average rate and pressure will be 1,000 BWPD at 2,000 PSIG surface pressure.

Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Kanicia Carrillo, COG Operating, 550 W Texas Ave, Suite 100, Midland, TX 79701. Phone number is 432-685-4332.

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