

DATE IN 1/15/08	SUSPENSE	ENGINEER W. JONES	LOGGED IN 1/14/08	TYPE WFX	APP NO. PKVRO801851674
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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

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 _____

[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.

Kristy Ward
Print or Type Name

Kristy Ward
Signature

Regulatory Analyst
Title

1-21-08
Date

e-mail Address

RECEIVED
2008 JAN 18 PM 1 56

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: XTO Energy, Inc.
ADDRESS: 200 N. Loraine, Ste. 800 Midland, TX 79701
CONTACT PARTY: Kristy Ward PHONE: 432-620-6740
- 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: (P-#9483) (1991 Hearing) *Case 10260*
- 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. **Attached.**
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. **Attached.**
- VII. Attach data on the proposed operation, including: **Attached.**
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate 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. **Attached.**
- IX. Describe the proposed stimulation program, if any. **Attached.**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). **Logs Attached.**
- *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. **Attached.**
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. **Attached.**
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. **Attached.**
- 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: Kristy Ward TITLE: Regulatory Analyst
SIGNATURE: Kristy Ward DATE: January 14, 2008
E-MAIL ADDRESS: kristy_ward@xtoenergy.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: _____

III. WELL DATA

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

- (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. **Arrowhead Grayburg**
- (2) The injection interval and whether it is perforated or open-hole. **3625'-3884' - Perforated**
- (3) State if the well was drilled for injection or, if not, the original purpose of the well. **Oil 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. **See Wellbore Diagram Attached.**
- (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.
Penrose 3440' (above) & San Andres 3884' (below)

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. **Attached.**

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: **Attached.**

- (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.

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

INJECTION WELL DATA SHEET

OPERATOR: XTO Energy, Inc.WELL NAME & NUMBER: Arrowhead Grayburg Unit #199WELL LOCATION: 2315' FNL & 1550' FWL F 7 22S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 12 1/2" Casing Size: 8 5/8"Cemented with: 950 sx. or ft³Top of Cement: Surface Method Determined: CirculatedIntermediate CasingHole Size: Casing Size: Cemented with: sx. or ft³Top of Cement: Method Determined: Production CasingHole Size: 7 7/8" Casing Size: 5 1/2"Cemented with: 1750 sx. or ft³Top of Cement: Surface Method Determined: CirculatedTotal Depth: 3884'Injection Interval3625' feet to 3884' Perforated

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2 3/8" Lining Material: IPCType of Packer: BJ 1XPacker Setting Depth: 3541'Other Type of Tubing/Casing Seal (if applicable): N/AAdditional Data

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

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

2. Name of the Injection Formation: Grayburg

3. Name of Field or Pool (if applicable): Arrowhead

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. See Wellbore Diagram

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

San Andres @ 3884' belowPenrose @ 3440' above

XTO Energy, Inc.
Arrowhead Grayburg Unit #199 CTI
API #30-025-31560
Section ~~31~~, T-22S, R-37E
Lea County, New Mexico
C-108 (Application for the Authorization to Inject)

VII. Data For Proposed Operation

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

Average daily rate of 1000 BWIPD
Maximum daily rate of 3000 BWIPD
2. System is closed.
3. Proposed average and maximum injection pressure:

Average injection pressure of 650 psi
Maximum injection pressure of 730 psi
4. The source of the injection fluids will be the produced water from existing Arrowhead Grayburg producers (see attached water analysis).
5. N/A

VIII. Geologic Data

Water injection will be into the Grayburg Formation at a depth of 3642'-3845'. The Grayburg is a porous dolomite. This well was a producing oil well and is being converted to a water injection well to support oil production from surrounding wells. The top of the Grayburg is picked at 3608' and this well does not penetrate to the base of the formation which is known to be approximately 240' thick in this area.

IX. Proposed Stimulation Program

It is proposed to stimulate the existing perforations by pumping 5,000 gallons of 20% acid in injection mode (approx. 12 bbls acid per stand). 500# max on backside. Flush acid with 30 bbls 9# brine. Drop ball to shift sleeve in tool. Flow back or RU swab and swab back acid load. POH w/sonic hammer. Lay down workstring.

X. Well Test Information

No Well Test information available due to well being TA'd for years. Logs are attached.

XI. Chemical Analysis

Water and Chemical Analysis are attached.

XII. Geological Statement

XTO has examined the available geologic and engineering data and we find no evidence that there are any open faults or other hydrologic connection between the Grayburg injection zone and any groundwater resources in this area.

XIII. Proof of Notice

Proof of Notice on Attached Page.

Surface Owner

Nymeyer Property
c/o Commerce Bank
P.O. Box 419248
Kansas City, MO 64141
Telephone No. 816-234-2000

I, Kristy Ward, do hereby certify that on January 14, 2008 the above and attached listed interested parties were mailed copies of the application to inject for the Arrowhead Grayburg Unit #199.

Kristy Ward

Offset Operators within ½ Mile Radius

Range Operating
777 Main Street, Ste. 800
Ft. Worth, TX 76102

Cimarex Energy Co. of Colorado
600 Las Colinas Blvd. E #11
Irving, TX 75039-5601

ME-TEX Oil & Gas Inc.
401 W. Taylor Street
Hobbs, NM 88240-6053

BP America Production Company
501 Westlake Park Blvd.
Houston, TX 77079



January 15, 2008

Nymeyer Property
c/o Commerce Bank
P.O. Box 419248
Kansas City, MO 64141

Re: Surface Owner Notice
Application to Convert Well to Injection
Arrowhead Grayburg Unit #199

To Whom It May Concern:

This letter is to notify you that XTO Energy Inc. has submitted to the Oil Conservation Division an application to convert a well to injection. Our records indicate that you are a surface owner. Attached is a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions please call me at 432-620-6740.

Sincerely,

Kristy Ward
Regulatory

7007 0220 0002 5063 9492

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only, No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Postmark Here	
Sent To: <i>Nymeyer Property - c/o Commerce Bank</i>	
Street, Apt. No., or PO Box No. <i>P.O. Box 419248</i>	
City, State, ZIP+4 <i>Kansas City, MO 64141</i>	
PS Form 3800, August 2006 See Reverse for Instructions	



January 15, 2008

Range Operating New Mexico Inc.
777 Main Street, Ste. 800
Ft Worth, TX 76102

Re: Offset Operator Notification
Arrowhead Grayburg Unit #199
API #30-025-31560

To Whom It May Concern:

This letter is to notify you that XTO Energy Inc. has submitted to the Oil Conservation Division, an application to convert a well to injection. Our records indicate that you are an offset operator. Attached is a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions please call me at 432-620-6740.

Sincerely,

Kristy Ward
Regulatory

7007 0220 0002 5083 9737

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only, No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Postmark Here	
Sent To <i>Range Operating New Mexico Inc</i>	
Street, Apt. No., or PO Box No. <i>777 Main Street, Ste. 800</i>	
City, State, ZIP+4 <i>Ft. Worth, TX 76102</i>	
PS Form 3800, August 2006 See Reverse for Instructions	



January 15, 2008

Cimarex Energy Co. of Colorado
600 Las Colinas Blvd. E #11
Irving, TX 75039-5601

Re: Offset Operator Notification
Arrowhead Grayburg Unit #199
API #30-025-31560

To Whom It May Concern:

This letter is to notify you that XTO Energy Inc. has submitted to the Oil Conservation Division, an application to convert a well to injection. Our records indicate that you are an offset operator. Attached is a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions please call me at 432-620-6740.

Sincerely,

Kristy Ward
Regulatory

7007 0220 0002 5083 9676

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only, No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Postmark Here	
Sent To: Cimarex Energy Co. of Colorado	
Street, Apt. No., or PO Box No. 600 Las Colinas Blvd. E #11	
City, State, ZIP+4 Irving, TX 75039-5601	
PS Form 3800, AUGUST 2006 See Reverse for Instructions	



January 15, 2008

ME-TEX Oil & Gas Inc.
401 W. Taylor Street
Hobbs, NM 88240-6053

Re: Offset Operator Notification
Arrowhead Grayburg Unit #199
API #30-025-31560

To Whom It May Concern:

This letter is to notify you that XTO Energy Inc. has submitted to the Oil Conservation Division, an application to convert a well to injection. Our records indicate that you are an offset operator. Attached is a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions please call me at 432-620-6740.

Sincerely,

Kristy Ward
Regulatory

7007 0220 0002 5063 9683

US Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Postmark Here	
Sent To ME-TEX OIL & GAS Inc.	
Street, Apt. No., or PO Box No. 401 W. Taylor Str	
City, State, ZIP+4 Hobbs, NM 88240-6053	
PS Form 3800, August 2005	



January 15, 2008

BP America, Inc.
501 Westlake Park Blvd.
Houston, TX 77079

Re: Offset Operator Notification
Arrowhead Grayburg Unit #199
API #30-025-31560

To Whom It May Concern:

This letter is to notify you that XTO Energy Inc. has submitted to the Oil Conservation Division, an application to convert a well to injection. Our records indicate that you are an offset operator. Attached is a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions please call me at 432-620-6740.

Sincerely,

Kristy Ward
Regulatory

7007 0220 0002 5083 9706

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only, No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Postmark Here	
Sent To <i>BP America Production Co</i>	
Street, Apt. No., or PO Box No. <i>501 Westlake Park Blvd.</i>	
City, State, ZIP+4 <i>Houston, TX 77079</i>	
PS Form 3800, August 2006 See Reverse for Instructions	

Advertising Receipt

REC'D / MIDLAND
JAN 11 2008

Hobbs Daily News-Sun

201 N Thorp
P O Box 936
Hobbs, NM 88241-0850
Phone: (575) 393-2123
Fax: (575) 397-0610

ATTN: KRISTY WARD
XTO ENERGY INC.
200 LORAIN, SUITE 800
MIDLAND, TX 79701

Cust#: 01102696-000
Ad#: 67548400
Phone: (432)682-8873
Date: 01/08/08

Ad taker: C2

Salesperson: 05

Classification: 672

Description	Start	Stop	Ins.	Cost/Day	Surcharges	Total
07 07 Daily News-Sun	01/09/08	01/09/08	1	29.34		29.35
Bold						1.00
2 Affidavits (Legals)						6.00

Payment Reference:

LEGAL NOTICE
January 9, 2007

Notice of Application for Fluid Injection Well Permit
Arrowhead Grayburg Unit #199

XTO Energy, Inc., 200 N. Loraine, Ste. 800, Midland, Texas 79701, Attention-Kristy Ward-432-620-6740, has applied for a permit to inject fluid into a formation which is productive of oil and gas. The applicant proposes to inject fluid at the location of Unit Ltr. F, Section 7, Township-22S, Range-37E, footage location of the well is 2315' FNL & 1550' FWL. The API # is 30-025-31560. Fluid will be injected into the Arrowhead Grayburg formation at a depth interval from 3625' - 3884', with a maximum injection rate of 3000 BWIPD and a maximum injection pressure of 730 psi.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

Total: □ 36.35
Tax: 2.43
Net: 38.78
Prepaid: 0.00

Total Due 38.78

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

PUBLISHER

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

of 1
_____ weeks.

Beginning with the issue dated

January 9 2008
and ending with the issue dated

January 9 2008

Kathi Bearden

PUBLISHER

Sworn and subscribed to before

me this 9th day of

January 2008
Dora Montz
Notary Public.

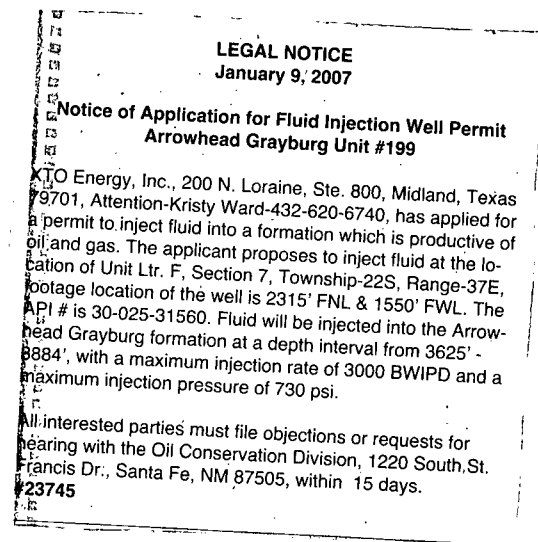
My Commission expires
February 07, 2009
(Seal)



OFFICIAL SEAL
DORA MONTZ
NOTARY PUBLIC
STATE OF NEW MEXICO

My Commission Expires: _____

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



01102696000 67548400
XTO ENERGY INC.
200 LORAIN, SUITE 800
MIDLAND, TX 79701



Water Analysis Report

9/25/2007

Address:

Customer: XTO Energy, Inc.
Attention: David Paschal

Lease: AGU
Formation:
Salesman: Mike Baker

CC:

Target Name: AGU Windmill

Sample Point: AGU Windmill

Sample Date: 09/14/2007

Test Date: 09/24/2007

Water Analysis(mg/L)

Calcium	176
Magnesium	107
Barium	
Strontium	
Sodium(calc.)	219
Bicarbonate Alkalinity	
Sulfate	301
Chloride	739
Resistivity	

Appended Data(mg/L)

CO2	
H2S	
Iron	0
Oxygen	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/	879

Physical Properties

Ionic Strength(calc.)	0.04
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Dew Point

Lead	
Zinc	

Calcite Calculation Information

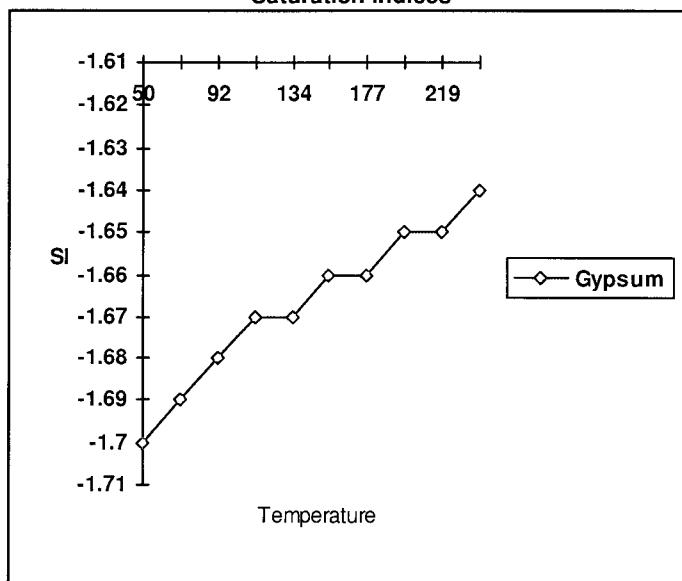
Calculation Method	Value
Mole Percent CO2	

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.68	
Hemihydrate (Calcium Sulfate)	-1.45	
Anhydrite (Calcium Sulfate)	-1.93	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Saturation Indices



Saturation Index Data Points

	50	71	92	113	134	156	177	198	219	240
Gypsum	-1.70	-1.69	-1.68	-1.67	-1.67	-1.66	-1.66	-1.65	-1.65	-1.64

Lab Tech.: *for*



Water Analysis Report

9/25/2007

Address:

Customer: XTO Energy, Inc.

Attention: David Paschal

Lease: AGU

Formation:

Salesman: Mike Baker

CC:

Target Name: AGU Windmill

Sample Point: AGU Windmill

Sample Date: 09/17/2007

Test Date: 09/24/2007

Water Analysis(mg/L)

Calcium	168
Magnesium	112
Barium	
Strontium	
Sodium(calc.)	210
Bicarbonate Alkalinity	
Sulfate	324
Chloride	708
Resistivity	

Appended Data(mg/L)

CO2	
H2S	
Iron	0
Oxygen	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/	879

Physical Properties

Ionic Strength(calc.)	0.04
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Dew Point

Lead	
Zinc	

Calcite Calculation Information

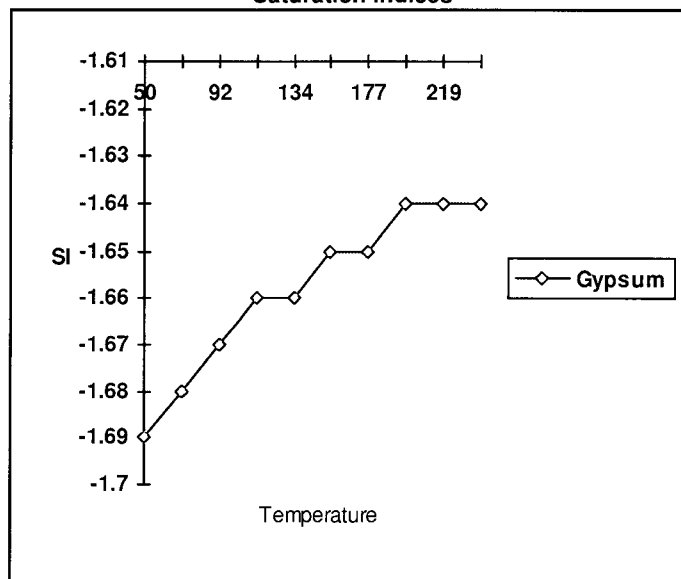
Calculation Method	Value
Mole Percent CO2	

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.67	
Hemihydrate (Calcium Sulfate)	-1.44	
Anhydrite (Calcium Sulfate)	-1.92	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Saturation Indices



Saturation Index Data Points

	50	71	92	113	134	156	177	198	219	240
Gypsum	-1.69	-1.68	-1.67	-1.66	-1.66	-1.65	-1.65	-1.64	-1.64	-1.64

Lab Tech.: *[Signature]*



Water Analysis Report

9/25/2007

Address:

Customer: XTO Energy, Inc.
Attention: David Paschal

Lease: AGU
Formation:
Salesman: Mike Baker

CC:

Target Name: AGU Windmill

Sample Point: AGU Windmill

Sample Date: 09/18/2007

Test Date: 09/24/2007

Water Analysis(mg/L)

Calcium	168
Magnesium	87
Barium	
Strontium	
Sodium(calc.)	250
Bicarbonate Alkalinity	
Sulfate	332
Chloride	691
Resistivity	

Appended Data(mg/L)

CO2	
H2S	
Iron	0
Oxygen	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/	777

Physical Properties

Ionic Strength(calc.)	0.04
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Dew Point

Lead	
Zinc	

Calcite Calculation Information

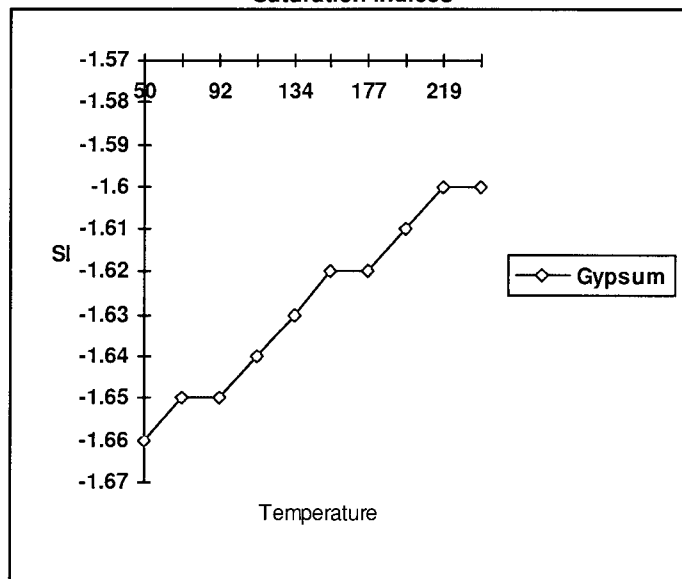
Calculation Method	Value
Mole Percent CO2	

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.65	
Hemihydrate (Calcium Sulfate)	-1.41	
Anhydrite (Calcium Sulfate)	-1.90	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Saturation Indices



Saturation Index Data Points

	50	71	92	113	134	156	177	198	219	240
Gypsum	-1.66	-1.65	-1.65	-1.64	-1.63	-1.62	-1.62	-1.61	-1.60	-1.60

Lab Tech.: *[Signature]*



Water Analysis Report

9/4/2007

Address:

Customer: XTO Energy, Inc.

Attention: David Paschal

Lease: AGU

Formation:

Salesman: Mike Baker

CC:

Target Name: AGU 241

Sample Point: AGU 241

Sample Date: 08/22/2007

Test Date: 08/29/2007

Water Analysis(mg/L)

Calcium	48
Magnesium	58
Barium	
Strontium	
Sodium(calc.)	41
Bicarbonate Alkalinity	
Sulfate	131
Chloride	220
Resistivity	

Appended Data(mg/L)

CO2	
H2S	
Iron	1
Oxygen	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/	358

Physical Properties

Ionic Strength(calc.)	0.01
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Dew Point	
Lead	
Zinc	

Calcite Calculation Information

Calculation Method	Value
CO2 in Brine(mg/L)	

Remarks: Windmill

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-2.43	
Hemihydrate (Calcium Sulfate)	-2.16	
Anhydrite (Calcium Sulfate)	-2.68	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Lab Tech.: *[Signature]*



Water Analysis Report

9/14/2007

Address:

Customer: XTO Energy, Inc.

Attention: David Paschal

Lease: AGU

Formation:

Salesman: Mike Baker

CC:

Target Name: AGU Fresh Water

Sample Point: AGU Fresh Water

Sample Date: 09/13/2007

Test Date: 09/14/2007

Water Analysis(mg/L)

Calcium	152
Magnesium	117
Barium	
Strontium	
Sodium(calc.)	352
Bicarbonate Alkalinity	
Sulfate	593
Chloride	715
Resistivity	

Appended Data(mg/L)

CO2	
H2S	
Iron	2
Oxygen	

Additional Data

Specific Gravity	
Total Dissolved Solids(Mg/L)	
Total Hardness(CaCO3 Eq Mg/	860

Physical Properties

Ionic Strength(calc.)	0.05
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	

Dew Poin	
Lead	
Zinc	

Calcite Calculation Information

Calculation Method	Value
CO2 in Brine(mg/L)	

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)		
Gypsum (Calcium Sulfate)	-1.49	
Hemihydrate (Calcium Sulfate)	-1.26	
Anhydrite (Calcium Sulfate)	-1.74	
Barite (Barium Sulfate)		
Celestite (Strontium Sulfate)		

Remarks:

Lab Tech.:

WELL DATA SHEET**FIELD:** Arrowhead**WELL NAME:** AGU No. 199**FORMATION:** Grayburg

LOC: 2315' FNL & 1550' FWL
TOWNSHIP: 22-S
RANGE: 37-E

SEC: 7
COUNTY: Lea
STATE: NM

GL: 3445'
KB to GL: 13'
DF to GL: 12'

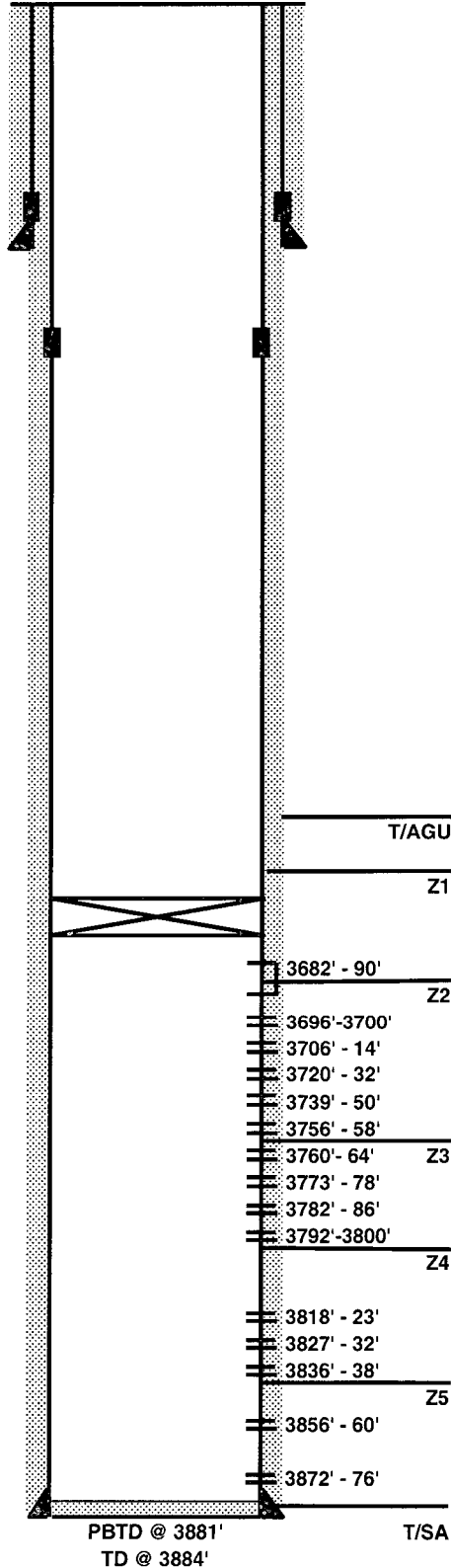
CURRENT STATUS: Producer
API NO: 30-025-31560
CHEVNO: OQ-9521

8-5/8" OD, 23#. M-50 csg
 set @ 1075' w/ 950 sxs cmt.
 Circ. 135 sxs to surf.

FC @ 1048'

DV tool @ 2565'

5-1/2" OD, 15.5#, K-55 csg
 set @ 3884' w/ 1750 sxs cmt.
 Circ. to surf. in 2 stages.

**Date Completed:** 06/12/92**Initial Production:** 11 BOPD / 137 MCFGPD / 26 BWPD**Initial Formation:** Grayburg **From:** 3682' **To:** 3876'**Completion Data:**

05-10-92 Drill to 3884' & cond. hole. Log SCHL CNL-LDT-CAL-GR, DLL-MLL & RFT; well blowing air & wtr. Circ out kick & set 5-1/2" csg, DO cmt to 3881' & circ. hole clean. **Selectively perf 3818-76'** (Zn's 4 & 5) w/ 2 SPF. **Selectively ACDZ** (PPI pkr) w/ 84 gals. **Swb** Rec 6 BO + 60 BW (mod blow gas after each run) / 24 runs; SFL @ 300', FER 2-6 BPH. **Selectively perf 3682-3800'** (Zn's 1 - 3) w/ 2 SPF. **Selectively ACDZ** (PPI pkr) w/ 1000 gals. 15% NEFE HCL. **Swb** Rec 73 BF (10% OC) / 20 runs in 5 hrs.; SFL @ 1000', FER 10 BPH. **Swb 3682' - 3876'** (An's 1-5) Rec 10 BF (10% OC, mod blow gas after each run) / 4 runs; SFL @ 2200', FER not rept'd. TIH w/ prod. tbg & TO to production.

06-15-92 Test pump 10 BOPD + 103 MCFGPD + 5 BWPD.

4/14/03 LAY DOWN PRODUCTION EQUIPMENT. SET CIBP @ 3650'
 CIRC. PACKER FUIL AND TA.

Workover History:**Additional Data:**

T/Queen @ 3350'
 T/Penrose @ 3451'
 T/AGU @ 3608'
 T/Grayburg Zone 1 @ 3642'
 T/Grayburg Zone 2 @ 3681'
 T/Grayburg Zone 3 @ 3760'
 T/Grayburg Zone 4 @ 3801'
 T/Grayburg Zone 5 @ 3845'
 T/San Andres @ 3884'

WELL DATA SHEET**FIELD:** Arrowhead**WELL NAME:** AGU No. 199**FORMATION:** Grayburg

LOC: 2315' FNL & 1550' FWL
TOWNSHIP: 22-S
RANGE: 37-E

SEC: 7
COUNTY: Lea
STATE: NM

GL: 3445'
KB to GL: 13'
DF to GL: 12'

CURRENT STATUS: Producer
API NO: 30-025-31560
CHEVNO: OQ-9521

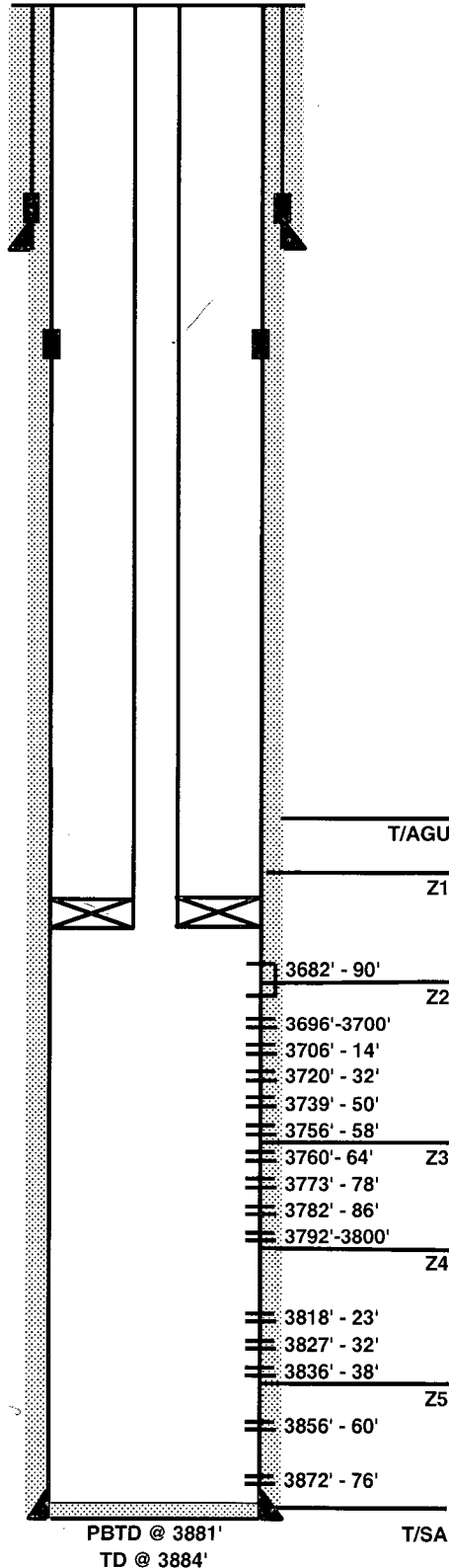
8-5/8" OD, 23#. M-50 csg
 set @ 1075' w/ 950 sxs cmt.
 Circ. 135 sxs to surf.

FC @ 1048'

DV tool @ 2565'

2-3/8" IPC Tbg
 BJ AS-1X Pkr
 at 3625

5-1/2" OD, 15.5#, K-55 csg
 set @ 3884' w/ 1750 sxs cmt.
 Circ. to surf. in 2 stages.

**Date Completed:** 06/12/92**Initial Production:** 11 BOPD / 137 MCFGPD / 26 BWPD**Initial Formation:** Grayburg From: 3682' To: 3876'**Completion Data:**

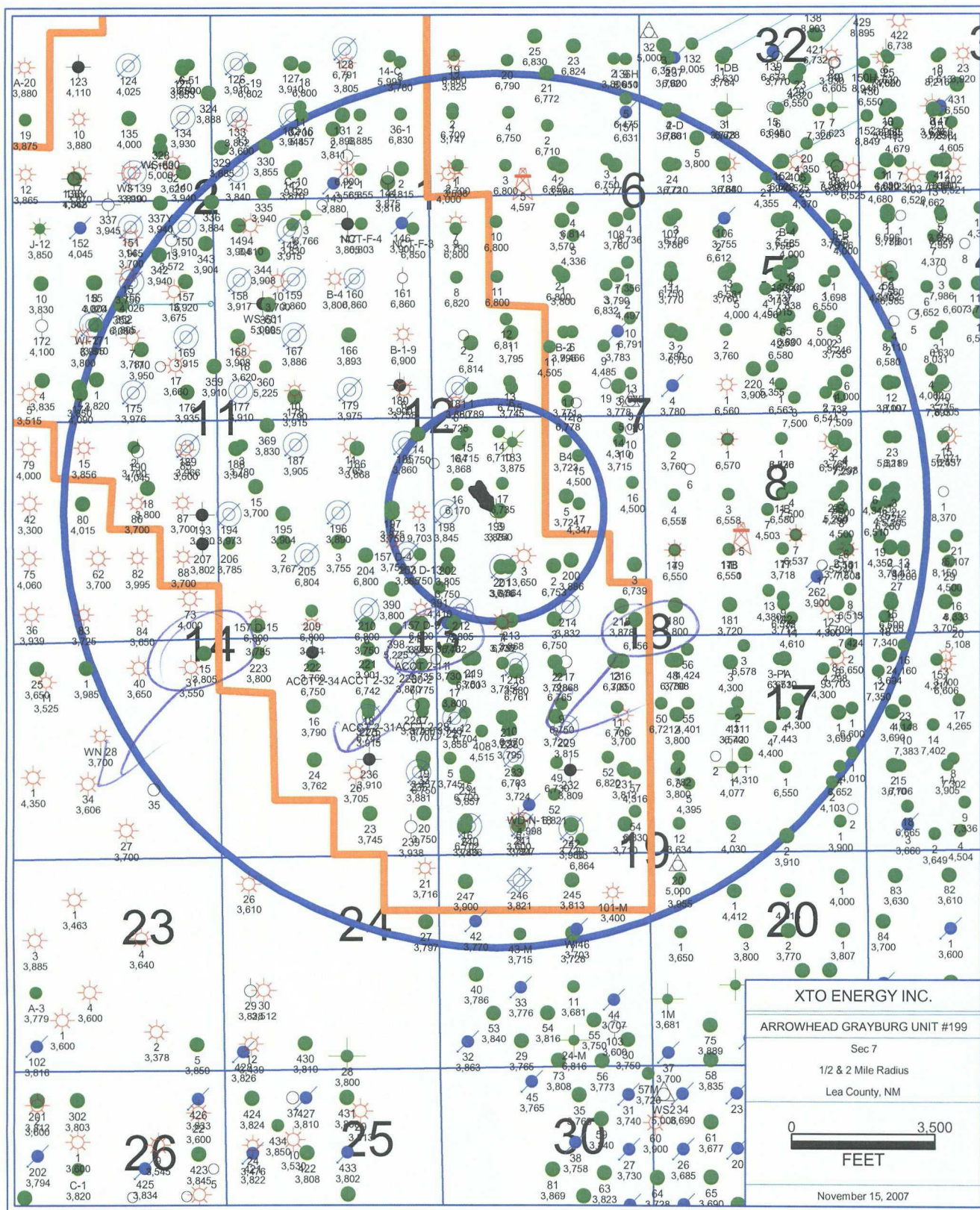
05-10-92 Drill to 3884' & cond. hole. Log SCHL CNL-LDT-CAL-GR, DLL-MLL & RFT; well blowing air & wtr. Circ out kick & set 5-1/2" csg, DO cmt to 3881' & circ. hole clean. **Selectively perf 3818-76'** (Zn's 4 & 5) w/ 2 SPF. **Selectively ACDZ** (PPI pkr) w/ 84 gals. **Swb** Rec 6 BO + 60 BW (mod blow gas after each run) / 24 runs; SFL @ 300', FER 2-6 BPH. **Selectively perf 3682-3800'** (Zn's 1 - 3) w/ 2 SPF. **Selectively ACDZ** (PPI pkr) w/ 1000 gals. 15% NEFE HCL. **Swb** Rec 73 BF (10% OC) / 20 runs in 5 hrs.; SFL @ 1000', FER 10 BPH. **Swb 3682' - 3876'** (An's 1-5) Rec 10 BF (10% OC, mod blow gas after each run) / 4 runs; SFL @ 2200', FER not rept'd. TIH w/ prod. tbg & TO to production.

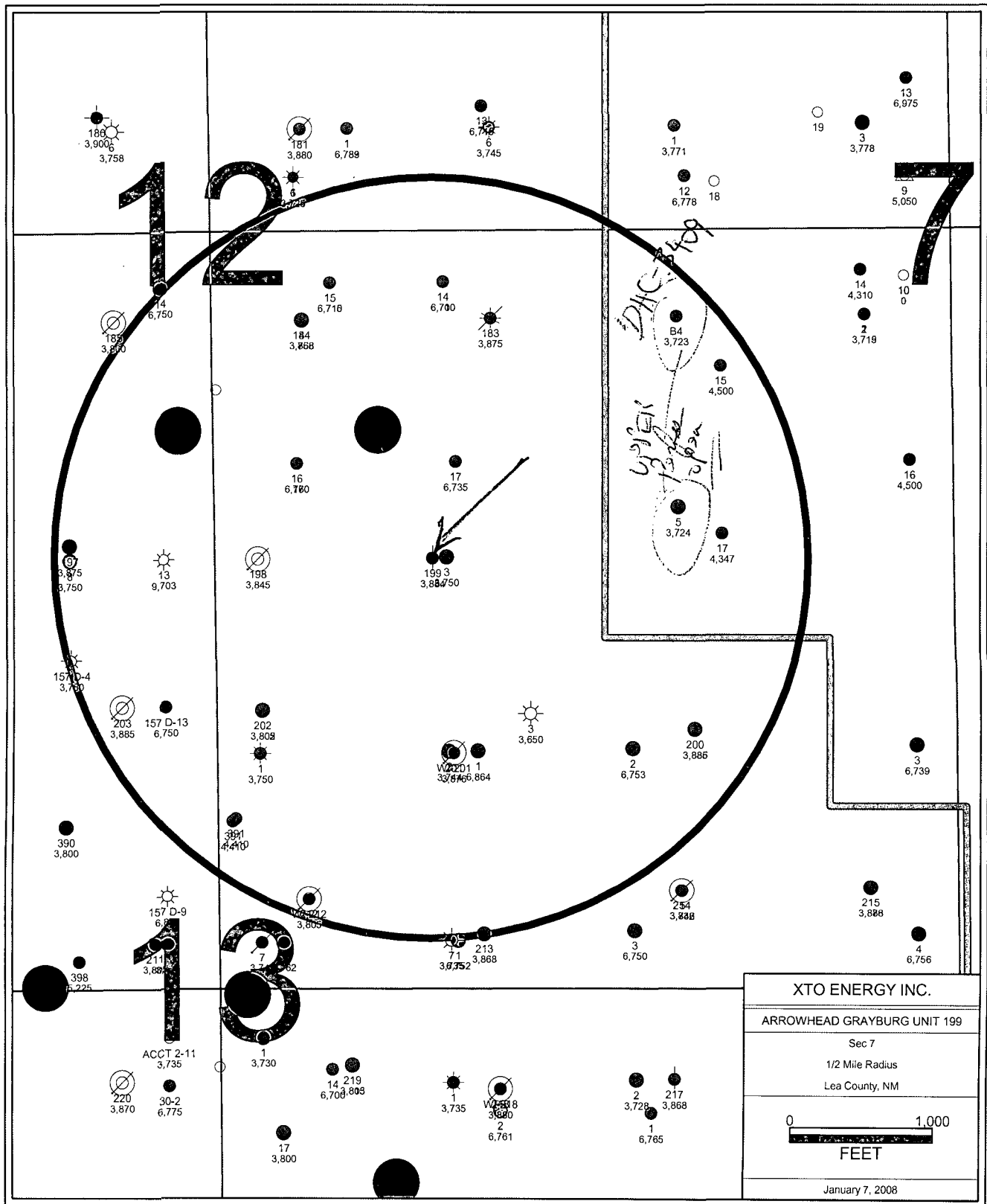
06-15-92 Test pump 10 BOPD + 103 MCFGPD + 5 BWPD.

4/14/03 LAY DOWN PRODUCTION EQUIPMENT. SET CIBP @ 3650'
 CIRC. PACKER FUIL AND TA.

Workover History:**Additional Data:**

T/Queen @ 3350'
 T/Penrose @ 3451'
 T/AGU @ 3608'
 T/Grayburg Zone 1 @ 3642'
 T/Grayburg Zone 2 @ 3681'
 T/Grayburg Zone 3 @ 3760'
 T/Grayburg Zone 4 @ 3801'
 T/Grayburg Zone 5 @ 3845'
 T/San Andres @ 3884'





5380 OGRUD

AGU 199 - 1/2 Mile Radius Wells.									
XTO ENERGY, INC.									
Well Name	Well #	TD	Location	Location	Field	Operator	Status	Spud	API
ARROWHEAD GRAYBURG UNIT	183	3875	660N 1980W	22S 7 37E	Arrowhead	XTO Energy	Gas-PA 9/1/05	09/12/91	300251009500
ARROWHEAD GRAYBURG UNIT	184	3868	660N 660W	22S 7 37E	Arrowhead	XTO Energy	Oil-Active	11/19/43	300251009400
ARROWHEAD GRAYBURG UNIT	197	3875	2210N 990E	22S 12 36E	Arrowhead	XTO Energy	Oil-Active	07/23/92	300253163100
ARROWHEAD GRAYBURG UNIT	198	3845	2310N 330W	22S 7 37E	Arrowhead	XTO Energy	Inj-Active	11/27/39	300251009200
ARROWHEAD GRAYBURG UNIT	199	3884	2315N 1550W	22S 7 37E	Arrowhead	XTO Energy	Oil-TA 2/1/06	05/10/92	300253156000
ARROWHEAD GRAYBURG UNIT	200	3886	1780S 1880E	22S 7 37E	Arrowhead	XTO Energy	Oil-Active	10/26/92	300253175200
ARROWHEAD GRAYBURG UNIT	201	3876	1650S 1650W	22S 7 37E	Arrowhead	XTO Energy	Inj-Active	08/11/92	300253167500
ARROWHEAD GRAYBURG UNIT	202	3805	1950S 350W	22S 7 37E	Arrowhead	XTO Energy	Oil-Active	05/03/92	300253156100
ARROWHEAD GRAYBURG UNIT	203	3885	1980S 635E	22S 12 36E	Arrowhead	XTO Energy	Inj-Active	10/07/91	300253137900
ARROWHEAD GRAYBURG UNIT	212	3805	630S 660W	22S 7 37E	Arrowhead	XTO Energy	Inj-Active	02/03/92	300253138800
ARROWHEAD GRAYBURG UNIT	213	3868	370S 1880W	22S 7 37E	Arrowhead	XTO Energy	Oil-Active	06/22/92	300253158200
ARROWHEAD GRAYBURG UNIT	391	4410	1180S 120W	22S 7 37E	Arrowhead	XTO Energy	Oil-Active	09/26/05	300253728400
ELLIOTT B FEDERAL	4	3723	660N 1980E	22S 7 37E	Penrose-Skelly/Eumont 7 Rvr	Range Oil-NM Inc. ^	Oil	11/04/44	300251009000
ELLIOTT B FEDERAL	5	3724	1980N 1980E	22S 7 37E	Penrose-Skelly	Range Oil-NM Inc.	Oil	12/18/44	300251009100
ELLIOTT B FEDERAL	15	4500	990N 1650E	22S 7 37E	Eumint; Southwest	Range Operating NM	Oil	05/12/06	300253783000
ELLIOTT B FEDERAL	17	4347	2150N 1650E	22S 7 37E	Eumint; Southwest	Range Operating NM	Oil	01/18/07	300253851700
H T MATTERN	3	3650	1930S 2180W	22S 7 37E	Eumint	Cimarex Energy Co. of Colorado	Gas	05/29/95	300253258300
H T MATTERN NCT D	3	3750	2310N 1650W	22S 7 37E	Arrowhead	Gulf Oil	Oil-PA 3/28/79	01/11/40	300251009300
H T MATTERN NCT E	8	3750	2310N 990E	22S 12 36E	Arrowhead	Gulf Oil	Oil-PA 12/13/65	08/12/39	300250888400
H T MATTERN NCT-D	14	6710	440N 1650W	22S 7 37E	Tubb	XTO Energy	Oil	09/28/79	300252508100
H T MATTERN NCT-D	15	6715	460N 860W	22S 7 37E	Tubb	XTO Energy	Oil-TA 10/24/97	11/07/82	300252509200
H T MATTERN NCT-D	16	6170	1650N 610W	22S 7 37E	Drinkard	XTO Energy	Oil-Active	08/28/75	300252510400
H T MATTERN NCT-D	17	6735	1650N 1720W	22S 7 37E	Tubb	Chevron	Oil-PA 11/14/02	10/29/79	300252511300
MATTERN	1	3750	1650S 330W	22S 7 37E	Eumint	Burlington Resources	Oil-PA 8/16/93	09/17/39	300251009700
MATTERN	1	6864	1650S 1850W	22S 7 37E	Drinkard	ME-TEX O&G	Oil	07/13/78	300252597000
MATTERN	2	3744	1650S 1650W	22S 7 37E	Arrowhead	Chevron	Inj-PA 3/21/92	10/11/39	300251009800
MATTERN	2	6753	1650S 2310E	22S 7 37E	Drinkard	ME-TEX O&G	Oil	03/03/80	300252667300
MATTERN	13	9703	2310N 330E	22S 12 36E	Eumint	Chevron	Gas-PA 3/28/02	04/05/59	300250888900
STATE	157 D-13	6750	1980S 330E	22S 12 36E	Eumint	BP America Prod Co.	Gas	08/22/95	300252662400
STATE	157 D-4	3750	2310S 990E	22S 12 36E	Eumint	BP America Prod Co.	Gas	12/08/75	300250888500

*Operators whose wells are identified in yellow were not notified due to them being Plugged & Abandoned.

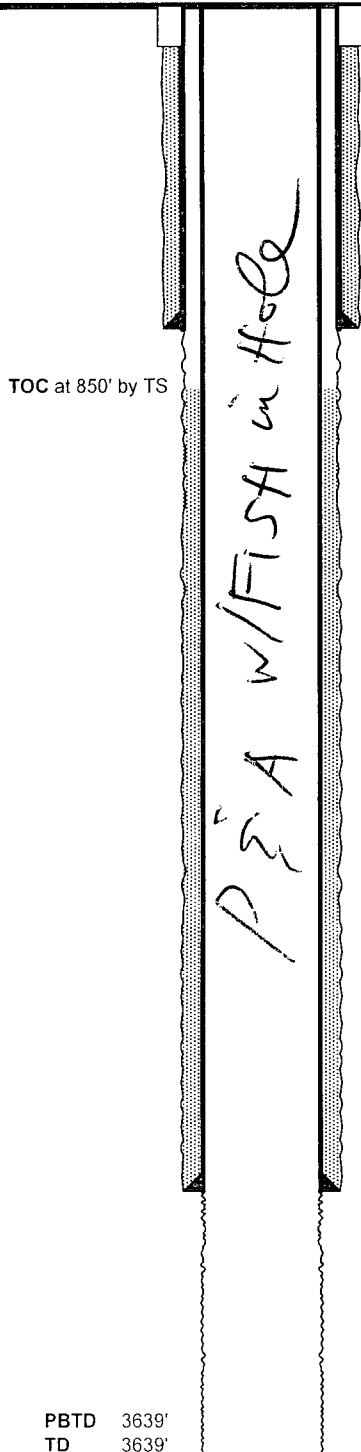
Penrose Skelly; GRB 612 50350

Arrowhead; GRB (3040)

XTO ENERGY

Well: Arrowhead Grayburg #183
Area: Eunice
Location: Section 7-22S-37E
County: Lea
Elevation: 3439' GL (10' KB)

WI: 55.59%
NRI: 46.9882%
Spud: 05/29/44
State: New Mexico



9-5/8" 25.7 ppf,
Set at 293'.
Cemented with 180 sx.

Known Casing Leaks

297-328
711-726

Known Tight Spots

4 3/4" tapered mill - 385', 388', 392'
4 3/4" bit - 385', 516', 526', 530', 551',
586', 625', 629', 698', 711',
4 1/4" bit - 899'
4 1/4" tapered mill - 615'
2 7/8" scalloped collar - 530', 748',
781'

Lowest Depth Obtained

956' on 6/16/05 with 2 7/8" scalloped
collar on 2 7/8" WS

5-1/2" 14 ppf, H-40
Set at 3627'.
Cemented with 350 sx.
TOC 850' by TS and 2000' by calc

Yates/Seven Rivers/Queen 3470'-3639' (Open Hole)
Acid (5/1990): 3000 gals 15% NEFE
Frac (5/1990): 130M lbs 12/20 sand & 46000 gals gel

Well History:

Date Completed: 5/29/44
Initial Formation: Grayburg From 3627 to 3735
Completion Data: Drill to 3745' (Zone 2); PB to
3735'. Acidize OH w/ 1000 gallons acid

Workover History:

3/13/45 - Set formation packer at 3680'
7/26/46 - Acidize w/ 3000 gallons
10/2/50 - Remove formation packer
6/22/56 - PB to 3723 w/ hydromite. Frac w/
12,000 gallons oil w/ 1 ppg. Installed Rod Pump
5/24/60 - TA'd Well
9/21/61 - Set 30 sx plug on bottom and 6 sx plug
and P&A
9/13/91 - Deepen 3745-3875. Log. Acidize with
1500 gals. 15% acid. Perf 3593-3606 w/ 2JSPF.
Acidize w/500 gals 15% Acid. IP: 53 BO/118
BW/55 MCF
5/28/05 - Latest Well Work
POH w/ rods & pump. TAC stuck. Chemical cut
tbg. @ 3453'. POH. RIH w/ OS, sat down solid
@ 385'. POH. Worked on well. Casing leaks at
297-328', 711-726. Tight Spots at 385-392, 516-
530, 551, 586', 625-629, 698-711, 899. Redbed
heaving when worked to 899.
09/25/05: Received verbal approval from Gary
Wink (OCD) to PA well from 2,305'.
09/26/05: PMP 75 SX of CL "C" CMT w/1%
CACL. Spot w/5.6 bbls of 10# drlg mud. POH
LD 2-3/8" WS. RIH & tagged TOC @ 1,484'.
Pmp 50 SX of CL "C" cmt w/2% CACL. Spot w/
2 bbls of 10# drlg mud. POH LD dwn 34 jts of 2-
3/8" WS & standing back 9 stands.
09/27/05: RIH w/28 jts of 2-3/8" WS. Tagged
TOC @ 906'. Called Gary Wink @ OCD. POH &
LD 17 jts. Bottom of tbg @ 355'. Mix & pmp 60
sacks of Class "C" neat, CIRC to surface. Good
cmt returns to half moon tank. Buddy Hill w/
OCD witness returns. POH LD 11 jts of 2-3/8"
WS. ND BOP. Top off csg w/cmt. Well is
P&A'D.

PBTD 3639'
TD 3639'

AGU #184
WELLBORE DIAGRAM

WELL DATA SHEET

FIELD: Arrowhead

WELL NAME: AGU No. 184
(Orig. H.T. Mattern (NCT-D) #4)
GL: 3460'
KB to GL: 6'
DF to GL: 5'

FORMATION: Grayburg
CURRENT STATUS: Producer
API NO: 30-025-0094
CHEVNO: FB-1102

Date Completed: 01/05/44
Initial Production: 143 BOPD / 1217 MCFGPD
Initial Formation: Grayburg From: 3675' To: 3755'
Completion Data:
ACDZ OH w/ 2000 gals 15% NI

9-5/8" OD, 25.7#
Surt. Pipe sat @ 291' w/
225 sxs cmt. Circ. to Surt.
12 1/4" hole size

TOC @ 2208' by Calc.

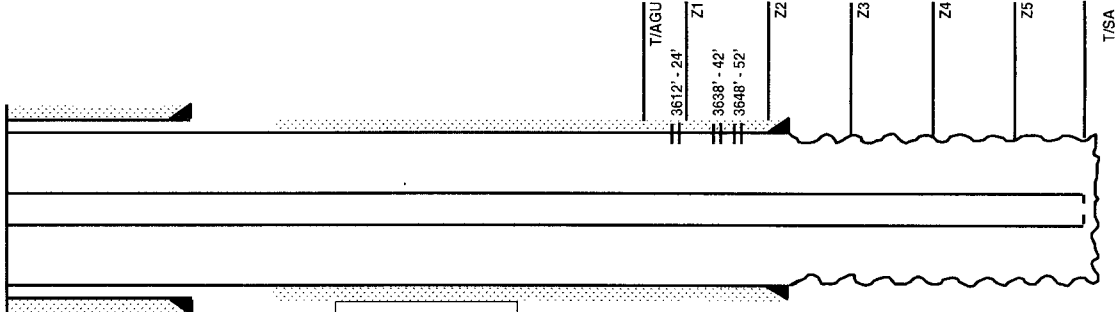
Tubing Detail: 04-14-92

KBTH:	126 Jts. 2-7/8" J-55 lbg.	3851.67'
SN:		1.10'
Perf Sub:		4.18'
J-55 MAJ:		10.05'
Landed @:		3867.00'

5-1/2" OD, 14# csg. set @
3675' w/ 275 sxs cmt.
TOC @ 2208' by calc.
7 7/8" hole size

4 1/2" open hole

OTD @ 3755'



TD @ 3868'

AGU #197
WELLBORE DIAGRAM

WELL DATA SHEET

FIELD: Arrowhead
LOC: 2210' FNL & 990' FEL
TOWNSHIP: 22-S
RANGE: 36-E

WELL NAME: AGU No. 197
(100' North of Matern "E" #8)
GL: 3456.8'
KB to GL: 13.5'
DF to GL: 12.5'

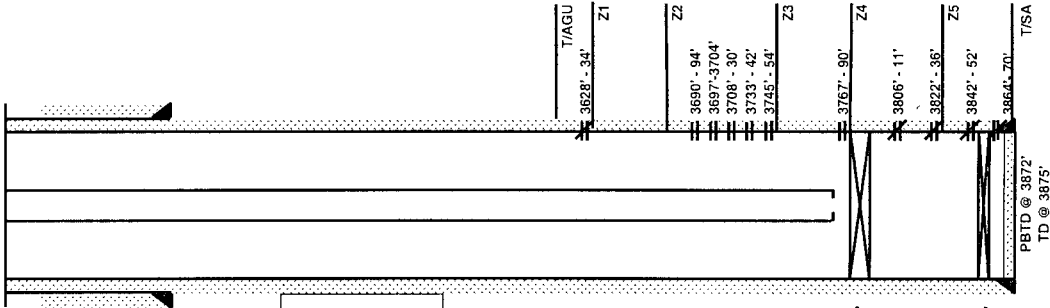
FORMATION: Grayburg
CURRENT STATUS: Producer
API NO: 30-025-31631
CHEVNO: OS-4928

SEC: 12
COUNTY: Lea
STATE: NM

8-5/8" OD, 23#, M-50 csg
set @ 1175' w/ 800 sxs cmt.
TOC @ 100' by TS

Tubing Detail: 12-17-92	
KBTH:	121 JIS J-55 8 RD Itg
SN:	
Perf Sub:	
2-7/8" MAJ:	
Landed @:	3775.00'

5-1/2" OD, 15.5#, K-55 csg
set @ 3875' w/ 900 sxs cmt.
Circ. 75 sxs to surf.



HISTORY

DATE COMPLETED: 09/09/92
INITIAL PRODUCTION: 6 BOPD / 67 MCFGPD / 383 BWPD
INITIAL FORMATION: GRAYBURG FROM: 3628' TO: 3790'
COMPLETION DATA:

07-23-92: DRILL TO 3875' & COND. HOLE. LOG CWS SLD-CNL-CAL-GR, DLL-MSFL & SFT. SET 5-1/2" CSG, DO CMT TO 3872' & CIRC. HOLE CLEAN. SWB SELECTIVELY PERF 3864-70' (ZN 5) W/ 2 SPF. ACDZ W/ 84 GALS. SQZ REC 130 BW / 22 RUNS IN 5.5 HRS.; SFL @ 1500', FER 20-25 BPH. SQZ 3864-70' W/ 50 SXS CMT. SELECTIVELY PERF 3806-52' (ZN'S 4 & 5) W/ 2 SPF. SELECTIVELY ACDZ (PPI PKR) W/ 252 GALS (EST AT 2 BBL'S ACID PER SET). SWB REC 133 BF (3% OC) / 8 RUNS IN 2 HRS.; FER 13 BPH. SQZ 3806'-52' W/ 50 SXS CMT. SELECTIVELY PERF 3628' - 3790' (AGU - ZN 3) W/ 1,176 GALS. SWB REC 55 BW / 23 RUNS IN 5.75 HRS.; SFL @ 2500', FER 6 BPH. TIH W/ PROD. TBG & TO TO PRODUCTION.

09-12-92: TEST PUMP 8 BOPD + 79 MCFGPD + 505 BWPD.

12-09-92: SQZ 3628-34' (AGU) W/ 80 SXS CMT. DO CMT 3439' - 3672' & CIRC HOLE CLEAN. SELECTIVELY PERF 3690' - 3704' (ZN 2) W/ 2 SPF. SELECTIVELY ACDZ (PPI PKR) W/ 168 GALS (84 GALS PER SET) 15% NEFE HCL. SWB REC 209 BW (TRACE OIL) / 35 RUNS; FER 27 BPH. TIH W/ PRDN TBG & TO TO PRDN. TEST PUMP 11 BOPD + 18 MCFGPD + 510 BWPD.

12-12-97: TAG PBD. SET PKR @ 3655. ACDZ PERFS 3690-3754 W/ 2000 GALS RSII FOAMED W/ N2. SWB. TIH W/ PRDN TBG, SET PKR @ 3585.

WORKOVER HISTORY:

ADDITIONAL DATA:
T/QUEEN @ 3317'
T/PENROSE @ 3441'
T/AGU @ 3620'
T/GRAYBURG ZONE 1 @ 3637'
T/GRAYBURG ZONE 2 @ 3679'
T/GRAYBURG ZONE 3 @ 3756'
T/GRAYBURG ZONE 4 @ 3791'
T/GRAYBURG ZONE 5 @ 3836'
T/SAN ANDRES @ 3872'

AGU #198 WIW
WELLBORE DIAGRAM

WELL DATA SHEET

FIELD: Arrowhead
WELL NAME: AGU No. 198 WIW
SEC: 7
COUNTY: Lea
STATE: NM
LOC: 2310' FNL & 330' FWL
TOWNSHIP: 22-S
RANGE: 37-E
GL: 3448'
KB to GL:
DF to GL: 7'

FORMATION: Grayburg
CURRENT STATUS: Injector
API NO: 30-025-10092
CHEVNO: FB1100

9-5/8", 25.7 #/ft, Surf. Pipe
set @ 290' w/ 200 sxs cmt.
Circ cmt to surf. 12-1/4" hole.

Sqz perfs in 4-1/2" @ 700'-02'

Csg leaks in 5-1/2" @
408' - 439' and 815' - 851'.

Tubing Detail: 04-07-92

KBTH:	0.00'
X-over nipple	0.35'
11-5 Jts. 2-3/8" Duct. line	3594.27'
On-Off tool w/ 1-43" F. prof.	1.90'
Guiberson G-6 pkr.	3.95'
Nipple:	0.45'
Wireline guide:	0.41'
Landolt @	3601.33'

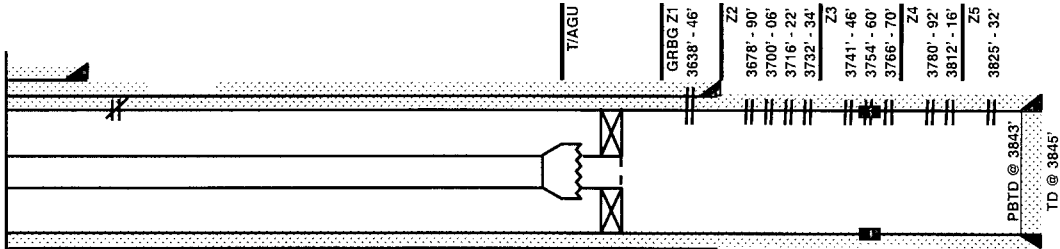
4-1/2" Guiberson G-6 Pkr,
at 3600' w/ on-off tool.

5-1/2", 14#/ft, Grade H, csg @
3670' w/ 350 sxs cmt. TOC @
2390' by TS. 7-7/8" hole.

Float Collar @ 3758'

4-1/2", 11.35 #/ft, K-E, csg
set @ 3845' w/ 550 sxs cmt.
Cmt circ to surf through sqz
perfs at 700'-02'.

MRV: 12/29/97



HISTORY

DATE COMPLETED: 12/22/39
INITIAL PRODUCTION: 420 BOPD / 675 MCFGPD / 0 BWPD
INITIAL FORMATION: GRAYBURG FROM: 3670' TO: 3740'
COMPLETION DATA:
ACDZ W/ 2000 GALS.

WORKOVER HISTORY:

10-16-42 SET FORMATION PKR @ 3689' TO LOWER GOR.
06-??-57 INSTALLED ROD PUMP.
05-09-67 SHUT IN.
06-08-71 FISH STUCK TUBING OUT OF WELL. CLEANED OUT TO 3740'.
RETURNED TO PRODUCTION.
04-08-92 MIRU. POH W/ PROD. TUBING. ISOLATE CSG LEAKS (815-851' & 408-439'). RUN COMPUTALOG DOWNHOLE VIDEO INSPECTION. DEEPEN FROM 3740' TO 3845'. UNDERREAM OH TO 6". RIH & CMT 4-1/2" LINER. DRILL CMT TO 3843' (PBDT). LOG. PERF & SQZ 700-702' W/ 200 SXS CMT. DRILL CMT 631-708'. TEST CSG. SELECTIVELY PERF 3812-32'. SWAB 3812'-32' FER 1.0 BPH. SELECTIVELY PERF 3638-3792'. SELECTIVELY BD & ACDZ 3638'-792' W/ 450 GAL 15% HCL. SWAB 3638'-3832' FER 2 BPH. RIH W/ INJECTION EQUIP.
04-10-92 INITIAL INJECTION @ 726 BWIPD @ 255 PSI.
10-25-96 C/O W/ COIL TBG TO PBD.
11-06-96 ACDZ W/ 4500 GALS 15% RESISOL.
02/08/07 ACID WASH PERFS W/ 3000 GLAS OF 29% 9010 @ 4400# @ 1.0 BPM.

ADDITIONAL DATA:

T/QUEEN @ 3323'
T/PENROSE @ 3423'
T/AGU @ 3605'
T/GRAYBURG ZONE 1 @ 3630'
T/GRAYBURG ZONE 2 @ 3673'
T/GRAYBURG ZONE 3 @ 3737'
T/GRAYBURG ZONE 4 @ 3772'
T/GRAYBURG ZONE 5 @ 3820'
T/SAN ANDRES @ 3858'

AGU #199
WELLBORE DIAGRAM

WELL DATA SHEET

FIELD: Arrowhead

WELL NAME: AGU No. 199

FORMATION: Grayburg

HISTORY

LOC: 2315' FNL & 1550' FWL
TOWNSHIP: 22-S
RANGE: 37-E

SEC: 7
COUNTY: Lea
STATE: NM

GL: 3445'
KB to GL: 13'
DF to GL: 12'

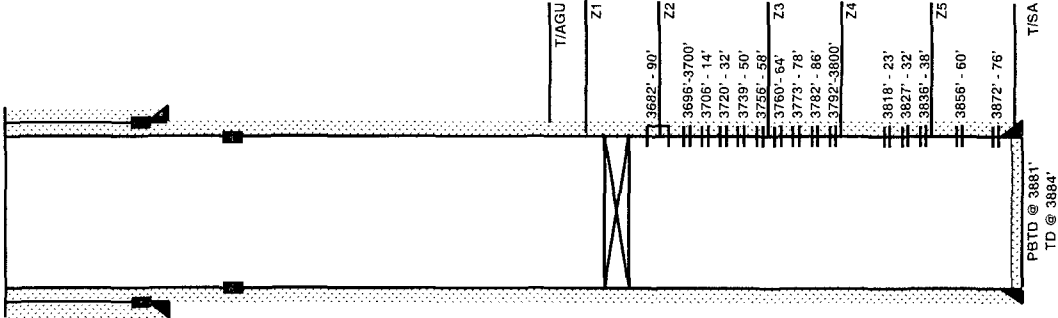
CURRENT STATUS: Producer
API NO: 30-025-31560
CHEVNO: OQ-9521

8-5/8" OD, 23# M-50 csg
set @ 1075' w/ 950 sxs cmt.
Circ. 135 sxs to surf.

FC @ 1048'

DV tool @ 2565'

5-1/2" OD, 15.5# K-55 csg
set @ 3884' w/ 1750 sxs cmt.
Circ. to surf. in 2 stages.



MRV: 12/29/97

DATE COMPLETED: 06/12/92

INITIAL PRODUCTION: 11 BOPD / 137 MCFGPD / 26 BWPD

INITIAL FORMATION: GRAYBURG FROM: 3682' TO: 3876'

COMPLETION DATA:

05-10-92 DRILL TO 3884' & COND. HOLE. LOG SCHL CNL-LDT-CAL-GR, DLL-MLL & RFT; WELL BLOWING AIR & WTR. CIRC OUT KICK & SET 5-1/2" CSG, DO CMT TO 3881' & CIRC. HOLE CLEAN. SELECTIVELY PERF 3818-76' (ZN'S 4 & 5) W/ 2 SPF. SELECTIVELY ACDZ (PPI PKR) W/ 84 GALS. SWB REC 6 BO + 60 BW (MOD BLOW GAS AFTER EACH RUN) / 24 RUNS; SFL @ 300', FER 2-6 BPH. SELECTIVELY PERF 3682-3800' (ZN'S 1 - 3) W/ 2 SPF. SELECTIVELY ACDZ (PPI PKR) W/ 1000 GALS. 15% NEFE HCL. SWB REC 73 BF (10% OC) / 20 RUNS IN 5 HRS.; SFL @ 1000', FER 10 BPH. SWB 3682' - 3876' (AN'S 1-5) REC 10 BF (10% OC, MOD BLOW GAS AFTER EACH RUN) / 4 RUNS; SFL @ 2200', FER NOT REPT'D. TIH W/ PROD. TBG & TO TO PRODUCTION.

06-15-92 TEST PUMP 10 BOPD + 103 MCFGPD + 5 BWPD.

4/14/03 LD PRODUCTION EQUIPMENT. SET CIBP @ 3650' CIRC. PACKER FULID & TA.

WORKOVER HISTORY:

ADDITIONAL DATA:

T/QUEEN @ 3350'
T/PENROSE @ 3451'
T/AGU @ 3608'
T/GRAYBURG ZONE 1 @ 3642'
T/GRAYBURG ZONE 2 @ 3681'
T/GRAYBURG ZONE 3 @ 3760'
T/GRAYBURG ZONE 4 @ 3801'
T/GRAYBURG ZONE 5 @ 3845'
T/SAN ANDRES @ 3884'

AGU #200
WELLBORE DIAGRAM

WELL DATA SHEET

FIELD: Arrowhead WELL NAME: AGU No. 200 FORMATION: Grayburg

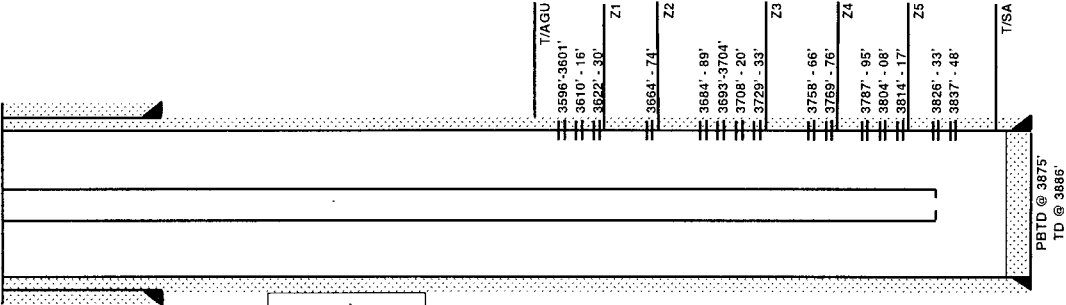
LOC: 1780' FSL & 1880' FEL SEC: 7 CURRENT STATUS: Producer

TOWNSHIP: 22-S COUNTY: Lea API NO: 30-025-31752

RANGE: 37-E STATE: NM CHEVNO: OU-5372

8-5/8" OD, 23#, M-50 csg
set @ 1061' w/ 750 sxs cmt.
Circ. 250 sxs to surf.
12 1/4" hole size

Tubing Detail: 01-08-93		
KBT#:	12 00'	
22 Jls J-55 6-RO lbg:	3779 57'	
S/N:	1 10'	3 97'
Prod Sub:	3 97'	31 53'
MAJ w BP:		
Landed @:	3829 00'	



5-1/2" OD, 15.5#, K-55 csg
set @ 3885' w/ 730 sxs cmt.
Circ. 52 sxs to surf.
7 7/8" hole size

MRV: 12/29/97

HISTORY

DATE COMPLETED: 03/01/93
INITIAL PRODUCTION: 10 BOPD / 94 MCFGPD / 11 BWPD
INITIAL FORMATION: GRAYBURG FROM: 3596' TO: 3848'
COMPLETION DATA:

10-26-91 DRILL TO 3886'. LOG CWS SDL-CNL-SP-GR-CAL, DLL-MSFL. SET 5-1/2" CSG.

12-21-92 DO CMT TO 3860' (PB) & CIRC HOLE CLEAN. SELECTIVELY PERF 3596'-3630' (AGU ZN) W/ 2 SPF. SELECTIVELY ACDZ (PPI PKR) W/ 630 GALS 15% HCL. SWB 23 BW IN 2 HRS.; FER 10 BPH. FRAC W/ 5000 GALS, 10,000# 20/40 SD & 5,000# RESIN & SI WELL. SWB REC 24 BW / 9 RUNS; FER 8.5 BPH & SWB DOWN. WASH SD 3780'-3865' & CIRC CLEAN. DO CMT 3860'-3875' & CIRC CLEAN. SELECTIVELY PERF 3837-48' (ZN 5) W/ 2 SPF. ACDZ W/ 210 GALS 15% HCL. COULD NOT EST INJ RATE. SELECTIVELY PERF 3804-33' (ZN 4 & 5) W/ 2 SPF. SELECTIVELY ACDZ W/ 475 GALS 15% NEFE. SWB REC 27 BW (TRACE OIL) / 11 RUNS; FFL 3719', FER 3 BPH. SELECTIVELY PERF 3664'-3795' (ZN'S 1-4) W/ 2 SPF. SELECTIVELY ACDZ W/ 799 GALS 15% NEFE. SWB REC 41 BW (10% OC LAST 3 SWB RUNS) & SWB DRY / 12 RUNS IN 3.5 HRS.; FFL @ 3609', FER 14.8 BPH PRIOR TO SWB DOWN. ACDZ 3664'-3733' (ZN'S 1&2) W/ 2,500 GALS 15% NEFE. SWB REC 26 BW / 5 RUNS IN 1 HR.; FER NOT REPT'D. SWB 3596'-3817' (AGU - ZN 4) REC 58 BF (6% OC) / 19 RUNS IN 5 HRS.; FFL @ 3000', FER 10 BPH. TIH W/ PROD. TBG & TO TO PRODUCTION.

03-04-93 TEST PUMP 9 BOPD + 97 MCFGPD + 12 BWPD.

WORKOVER HISTORY:

ADDITIONAL DATA:

T/QUEEN @ 3347'
T/PENROSE @ 3450'
T/AGU @ 3594'
T/GRAYBURG ZONE 1 @ 3631'
T/GRAYBURG ZONE 2 @ 3668'
T/GRAYBURG ZONE 3 @ 3740'
T/GRAYBURG ZONE 4 @ 3776'
T/GRAYBURG ZONE 5 @ 3820'
T/SAN ANDRES @ 3858'

AGU #201 WIW
WELLBORE DIAGRAM

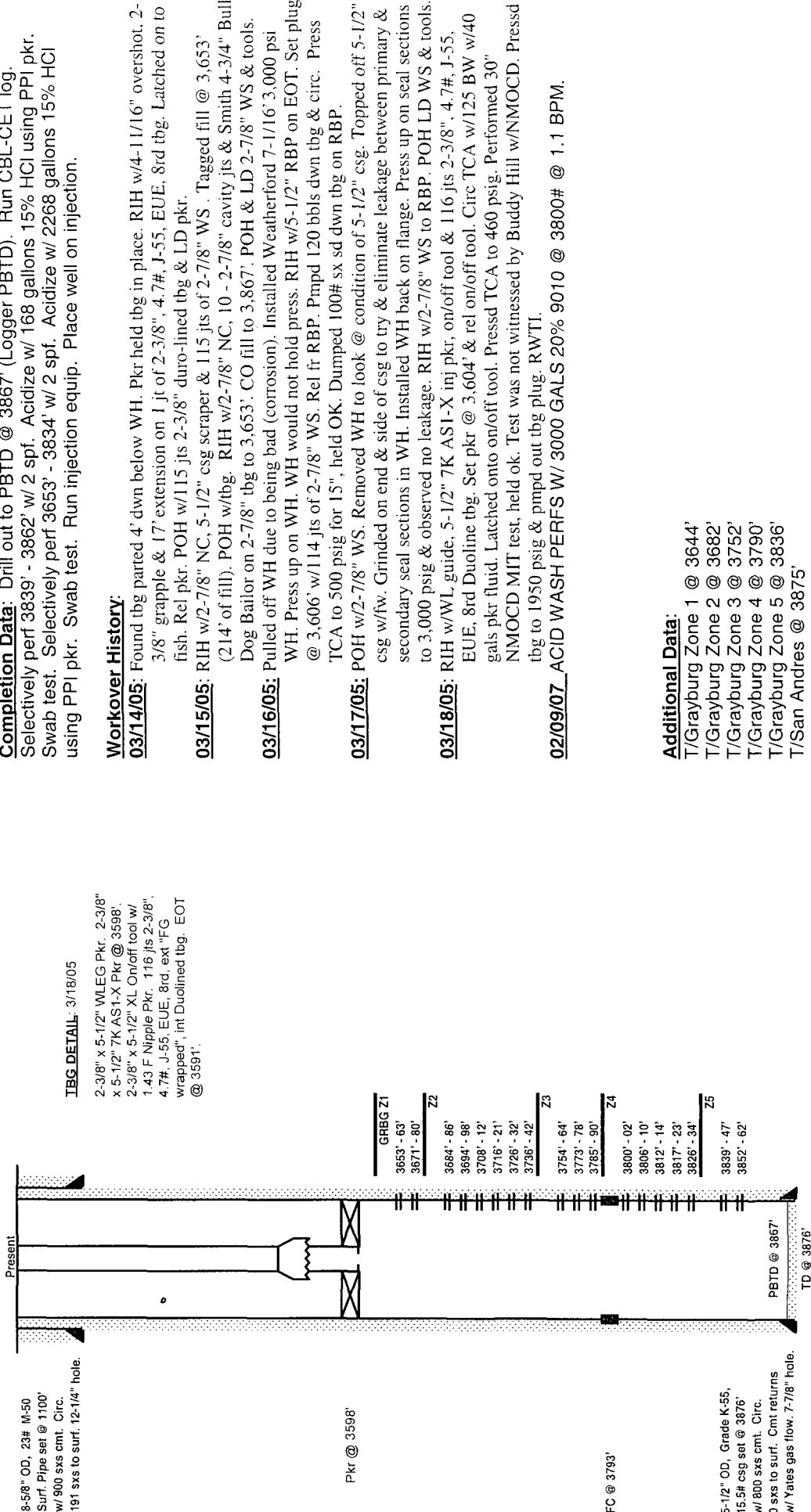
WELL DATA SHEET

FIELD: Arrowhead WELL NAME: AGU No. 201 WIW FORMATION: Grayburg

SEC: 7 LOC: 1650'FSL & 1650'FWL GL: 3447.0' CURRENT STATUS: Injector

TOWNSHIP: 22-S COUNTY: Lea KB to GL: 13.5' API NO: 30-025-31675

RANGE: 37-E STATE: NM DF to GL: 12.5' CHEVNO: OS9335



HISTORY

Date Completed: 9/23/92
Initial Injection: 868 BWIPD @ 0 PSIG
Initial Formation: Grayburg From: 3653' To: 3862'
Completion Data: Drill out to PBTD @ 3867' (Logger PBTD). Run CBL-CET log. Selectively perf 3839' - 3862' w/ 2 spf. Acidize w/ 168 gallons 15% HCl using PPI pkr. Swab test. Selectively perf 3653' - 3834' w/ 2 spf. Acidize w/ 2268 gallons 15% HCl using PPI pkr. Swab test. Run injection equip. Place well on injection.

Workover History:
03/14/05: Found tbg parted 4' dwn below WH. Pkr held tbg in place. RIH w/4-11/16" overshot. 2-3/8" grapple & 17' extension on 1 jt of 2-3/8" 4.7# J-55, EUE, 8rd tbg. Latched on to fish. Rel pkr. POH w/115 jts 2-3/8" duro-lined tbg & LD pkr.
03/15/05: RIH w/2-7/8" NC, 5-1/2" csg scraper & 115 jts of 2-7/8" WS. Tagged fill @ 3,653' (214' of fill). POH w/tbg. RIH w/2-7/8" NC, 10 - 2-7/8" cavity jts & Smith 4-3/4" Bull Dog Bailor on 2-7/8" tbg to 3,653'. CO fill to 3,867'. POH & LD 2-7/8" WS & tools. Dog Bailor on 2-7/8" tbg to 3,653'. Installed Weatherford 7-1/16" 3,000 psi WH. Press up on WH. WH would not hold press. RIH w/5-1/2" RBP on EOT. Set plug @ 3,606' w/114 jts of 2-7/8" WS. Rel fr RBP. Pmpd 120 bbls dwn tbg & circ. Press TCA to 500 psig for 15", held OK. Dumped 100# sx sd dwn tbg on RBP.
03/17/05: POH w/2-7/8" WS. Removed WH to look @ condition of 5-1/2" csg. Topped off 5-1/2" csg w/fw. Grinded on end & side of csg to try & eliminate leakage between primary & secondary seal sections in WH. Installed WH back on flange. Press up on seal sections to 3,000 psig & observed no leakage. RIH w/2-7/8" WS to RBP. POH LD WS & tools.
03/18/05: RIH w/WL guide, 5-1/2" 7K ASI-X inj pkr, on/off tool & 116 jts 2-3/8" 4.7# J-55, EUE, 8rd Duoline tbg. Set pkr @ 3,604' & rel on/off tool. Circ TCA w/125 BW w/40 gals pkr fluid. Latched onto on/off tool. Pressd TCA to 460 psig. Performed 30" NMOCD MIT test, held ok. Test was not witnessed by Buddy Hill w/NMOCD. Pressd tbg to 1950 psig & pmpd out tbg plug. RWTTI.
02/09/07: ACID WASH PERFS W/ 3000 GALS 20% 9010 @ 3800# @ 1.1 BPM.

Additional Data:
T/Grayburg Zone 1 @ 3644'
T/Grayburg Zone 2 @ 3682'
T/Grayburg Zone 3 @ 3752'
T/Grayburg Zone 4 @ 3790'
T/Grayburg Zone 5 @ 3836'
T/San Andres @ 3875'

AGU #202
WELLBORE DIAGRAM

WELL DATA SHEET

AGU No. 202

FIELD: Arrowhead

LOC. 1950' FSL & 350 FWL
TOWNSHIP: 22-S
RANGE: 37-E

SEC. 7
COUNTY: Lea
STATE: NM

FORMATION: Grayburg

CURRENT STATUS: Producer
API NO. 30-025-31561
CHEVNO. OQ-9520

GL: 3449'
KB to GL: 13'
DF to GL: 12'

8-5/8" OD, 23# M-50 csg
set @ 1140' w/ 950 sxs cmt.
Circ. 100 sxs to surf.



9/20/2006: Rods
1 1-1/2" x 26' SM PR
1 1"x8" D78 pny rod
74 1" D78 pny rods
60 7/8" D78 pny rods
12 1-1/2" K-Bars
1 7/8" x 4' stabilizer rod

9/20/2006: Tubing
1 2-7/8" tbg sub, 6.5#, J-55 8rd EUE 4.00'
2 2-7/8" tbg sub, 6.5#, J-55 8rd EUE 20.00'
1 1/2-7/8" tbg, 6.5#, J-55, 8rd EUE 3508.29'
1 2-7/8" x 5-1/2" TAC 2.70'
6 2-7/8" tbg, 6.5#, J-55, 8rd EUE 179.33'
1 2-3/4" pump barrel (SND3815) 29.80'
1 2-7/8" perf sub 4.10'
1 2-7/8" BPMA 32.10'

Sqz Grayburg perms fr/3,617'-3,680'
w/400 sx CL C (8/9/06)

Perf Grayburg fr/3,755'-3,764', 3,730'-3,735',
3,706'-3,720' & 3,680'-3,694' (42', 252 holes) 8/
15/06.

5-1/2" OD, 15.5# K-55 csg
set @ 3735' w/ 870 sxs cmt.
Circ. 82 sxs to surf.

TD @ 3805

HISTORY

Date Completed: 06/03/92

Initial Production: 30 BOPD / 43 MCFGPD / 135 BWPD

Initial Formation: Grayburg From: 3617' To: 3792'

Completion Data:

05-3-92 Drill to 3795'. Log AWS DLL-MLL-GR-CAL, ZDEN-CNL-GR. Deepend to 3805'. Set 5-1/2" csg, Selectively perf 3784-92' (Zn 4) w/ 2 SPF. ACDZ w/ 50 gals 15% NEFE HCL. Swb Rec 20 BW / 6 runs & SWB DRY on 4th run; FER -0- BPH. Selectively perf 3670-80' (Zn's 1 & 2) w/ 2 SPF. ACDZ w/ 150 gals 15% NEFE HCL. Swb Rec 207.3 BF (10% OC) / 22 runs in 6 hrs.; SFL @ 1800', FER 39.5 BPH. Selectively perf 3617'-3774' (AGU - Zn 3) w/ 2 SPF. Selectively ACDZ (PPI pkr) w/ 100 gals 15% NEFE HCL. Swb Rec 88 BF (10% OC) / 20 runs in 7 hrs.; SFL @ 2300', FER 12-14 BPH. TIH w/ prod. tbg & TO to production.

06-04-92 Test pump 35 BOPD + 43 MCFGPD + 130 BWPD.

Workover History:

2/25/03 RIH, pulled tbg, set CIBP @ 3550', & cap w/35' cmt. Well TA'd.

08/07/06: Tagged CIBP @ 3,555' & DO CIBP.

08/08/06: Sqz Grayburg perms fr/3,617'-3,680'. EIR of 2.6 BPM @ 392 psig w/22 BFW. Mixed & pmpd 185 sx CL C w/2% CACL @ 2.6 BPM & 425 psig & 215sx CL Cmt @ 2.5 BPM & 856 psig. Obtain sqz w/1,017 psig & 372 sx cmt in formation. Rev out 28sx cmt & 40 BFW to half pit.

08/15/06: Perf Grayburg fr/3,755'-3,764', 3,730'-3,735', 3,706'-3,720' & 3,680'-3,694' (42', 252 holes). Spotted 100 gals 20% NEFE HCL acid over perms fr/3,774'-3,750'. A. Grayburg perms fr/3,774'-3,750'. Pmp 4 bbls 9# brine wtr. Comm w/perfs fr/ 3,744'-3,706'. PU & set pkr @ 3,703'. Pmpd 6 bbls 9# brine. Comm w/upper perms fr/3,694'-3,670'. A. Grayburg perms fr/3,686'-3,774' w/1,700 gals 20% NEFE HCL acid. Flush to btm perms w/24 bbls 9# brine wtr. AIR - .5 BPM. AIP - 250 psig. ISIP - vac. Max/Min press - 6/801 psig. Swab. Made 27 swab runs in 8 hrs. Rec 155 bbls wtr, 5% OC. Good gas show. BFL - 1,250'. FFL - 2,000'.

08/18/06: RIH w/prod equip.

AGU #203 WIW
WELLBORE DIAGRAM

HISTORY

FIELD: Arrowhead
WELL NAME: AGU No. 203 WIW
SEC: 12
COUNTY: Lea
STATE: NM
LOC: 1980' FSL & 635' FEL
TOWNSHIP: 22-S
RANGE: 36-E
GL: 3458'
KB to GL: 6'
DF to GL: 5'

FORMATION: Grayburg
CURRENT STATUS: Injector
API NO: 30-025-31379
CHEVNO: KZ3247

DATE: COMPLETED: 03-03-92
INITIAL INJECTION: 1132 BWPD
INITIAL FORMATION: GRAYBURG
FROM: 3638' TO: 3800'
COMPLETION DATA:

10-07-91: DRILL TO 3885' (TD). HAD PARTIAL MUD RETURNS THROUGH GRAYBURG. RUN OH LOGS. RUN CSG. MIRU COMPLETION RIG. DO CMT TO PBTD @ 3875'. RUN CORRELATION LOG. SELECTIVELY PERF 3840'-66' (2 SPF). SWAB TEST. FER 2.5 BPH. ACDZ PERFS 3840'-66' W/ 200 GAL. 15% HCL. SWAB TEST. FER 30 BPH. SET CICR @ 3820' & CMT SQZ 3840'-66'. SELECTIVELY PERF 3638'-800'. SELECTIVELY BD PERFS USING PPI PKR AND ACID, TOTAL ACID 1500 GAL. SWAB BACK. SWAB TEST 3788'-800'. FER 19 BPH. SWAB TEST 3638'-777' FER 24 BPH. SWAB TEST 3638'-62' FER 20 BPH. CMT SQZ ALL PERFS 3638'-800' W/ APPROX. 700 SXS CMT IN 4 ATTEMPTS. DO TO 3820'. TEST SQZ TO 300 PSI. SELECTIVELY PERF 3788'-800'. SWAG TEST. FER =0 BPH. SELECTIVELY PERF 3753'-77'. SWAB TEST FER= 0 BPH. SELECTIVELY BD PERFS 3756'-800' W/ ACID. SWAB TEST 3756'-800' FER 6 BPH. SELECTIVELY PERF 3702'-38'. SWAB TEST 3702'-800' FER 14 BPH. SELECTIVELY PERF 3638'-62'. SWAB TEST 3638'-800' FER 20 BPH. RUN INJECTION EQUIP.

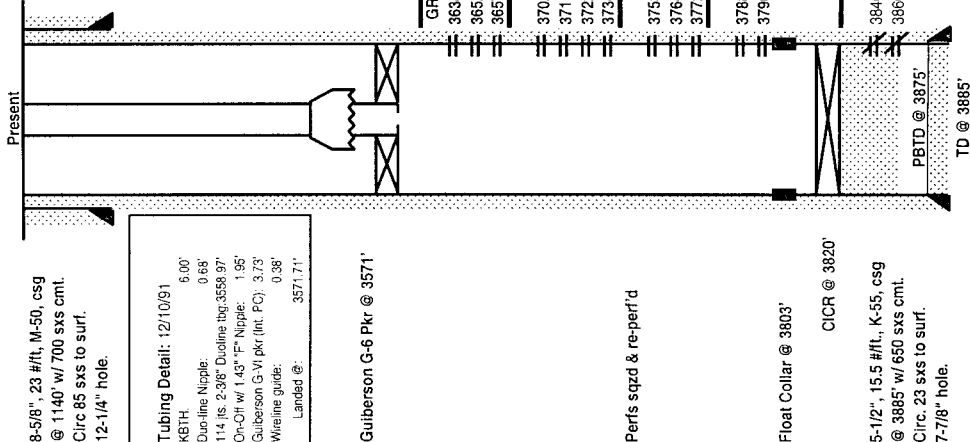
WORKOVER HISTORY:

03-02-92: INJ. RATE 1034 BWPD, TBG ON VACUUM.

ADDITIONAL DATA:

T/QUEEN @ 3297'
T/PENROSE @ 3425'
T/AGU @ 3614'
T/GRAYBURG ZONE 1 @ 3626'
T/GRAYBURG ZONE 2 @ 3668'
T/GRAYBURG ZONE 3 @ 3746'
T/GRAYBURG ZONE 4 @ 3782'
T/GRAYBURG ZONE 5 @ 3831'
TD @ 3889'
T/SAN ANDRES @ 3870'

WELL DATA SHEET



AGU #212 WIW

WELLBORE DIAGRAM



Well: Arrowhead Grayburg #212
Area: Eunice
Location: 630' FSL & 660' FEL
 Sec 7 T22S R36E
County: Lea
Elevation: 3436' GL : 3442' KB: 6' KB
WI: 55.59%
NRI: 46.9882%
Spud: 3/11/1992
State: New Mexico

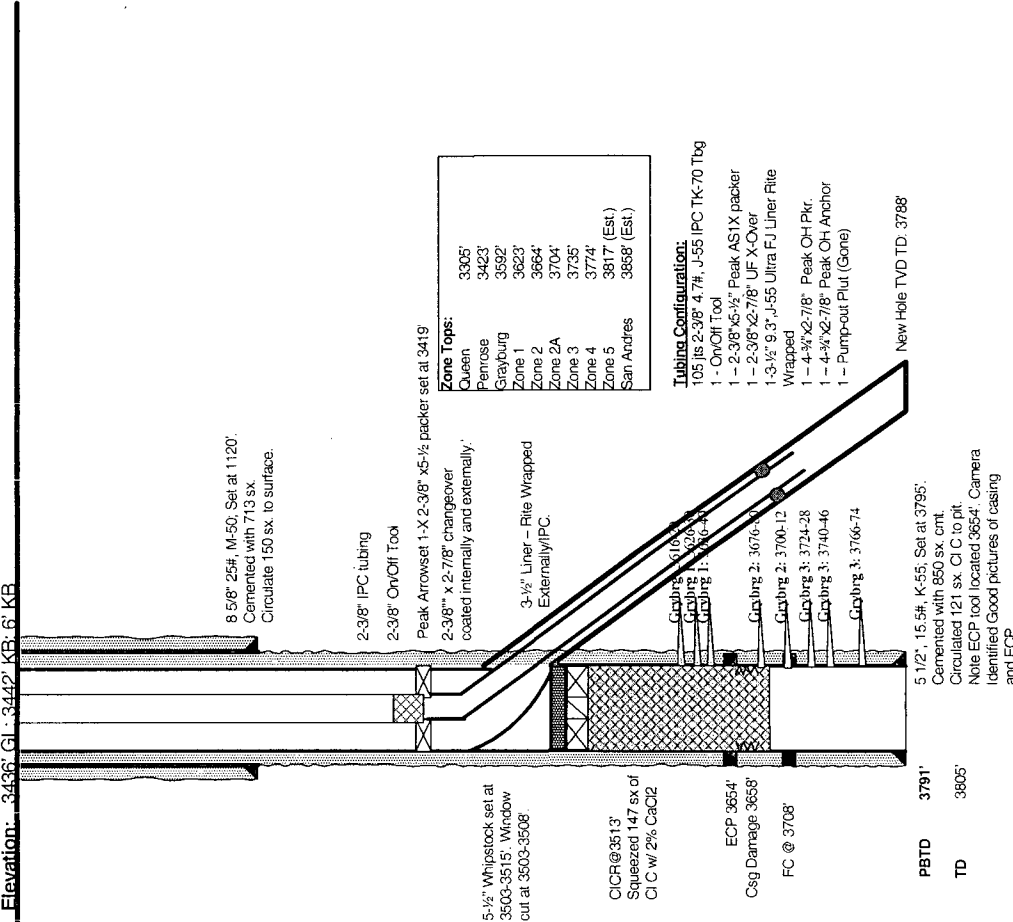
HISTORY

Date Completed: 03-11-92
Initial Injection: 1001 BWPD
Initial Formation: Grayburg
Completion Data:
From: 3616' **To:** 3786'

02-02-92 MIRU. Drill to 3805' & log ATLAS DN-CNL-GR; DLL-MLL & FMT; loggers TD @ 3801'. Run 90 Jts. 5-1/2" csg, FC @ 3708'.
02-17-92 MIRU completion rig. DO to 3791'. Run CBL-CET log. Perf. 3626-30', 3636-40' (Zn 1) & 3700-04' (Zn 2) w/ 2SPF. Swb Rec 28 BW/5 runs & swb dry; IFL @ surf, FFL 3587'. After swb FL @ 3400', FER 1.1 BPH. ACDZ w/ 150 gals. Swb Rec Ttl 26 BF in 3 attempts w/ Ttl 8 runs. Last run FL @ 3000', FE 587/hr. Rec 3.4 BF, 50% oil & 50% wtr. Perf 3616-20' (AGU), 3676-80', 3704-12' (Zn 2), 3724-28', 3740-46', 3766-74' (Zn 3) & 3784-86' (Zn 4). Swb 1hr. Rec 12 BW/4 runs & Swb dry. Selectively BD and ACDZ w/ 525 gals NEFE HCL as follows: 100 gals in perfs 3704' - 3712' and 50 gals in all other perf sets. Swb 3 hrs. Rec 28 BF/6 runs (3% oil & 97% wtr) and swb dry. FL @ 2400', FER 3-4 BPH. Run injection tbg.

Workover History:

03-11-92 Inj. rate 1001 BWIPD, Tbg on vacuum.
06-02-98 W/CTU: ACDZ perfs 3616-3786' w/2000 gal 15% HCl w/70Q foam down backside as diverter.
11-24-99 Acdz perfs 3616'-3786' w/2000 gals 15% NEFE HCL. Dmp 2500# 20/40 sd, wash sd to 3655'. Acdz 3616'-3640' w/1000 gals 15% HCL. Sqz perfs 3616'-3640' w/200 sx cmt. DO cmt to 3855', wash sd to 3791'.
9-29-06 Rig up to run dual packer and found tight spot in casing @ 3660-62. POH and ran RBP and set @ 3504'.
3-20-07 Ran DH Camera. Determined Csg badly damaged. Decided to sidetrack. SET Whpstk @ 3503-3515. Mill outside casing @ 3503-08. Drill 4-3/4" hole to 3788. RIH with 2-3/8" tubing assembly with 3-1/2" 9.3# Ultra FJ liner with OH anchor and packer on bottom. Set packer and anchor @ 3685 below Zone 1 and acidized with 2,000gals 20% NEFE Acid. SI for 3 days and RWTI. IP 1646 BWPD/0 PSI.



PREPARED BY: Greg Hicks DATE: 3/20/07

AGU #213
WELLBORE DIAGRAM

DATA

WELL DATA SHEET

FIELD: Arrowhead

WELL NAME: AGU No. 213

FORMATION: Grayburg

LOC: 370' FSL & 1880' FWL
TOWNSHIP: 22-S
RANGE: 37-E

SEC: 7
COUNTY: Lea
STATE: NM

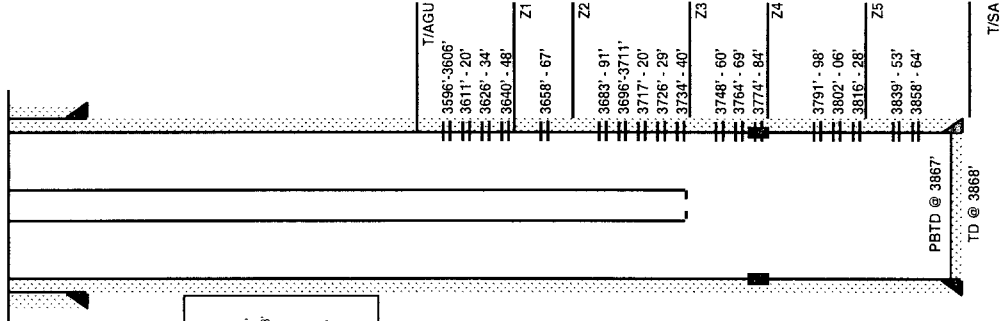
GL: 3428.3'
KB to GL: 13.5'
DF to GL: 12.5'

CURRENT STATUS: Producer
API NO.: 30-025-31582
CHEVNO: OS-4855

8-5/8", 23# & 24# M-50 &
K-55, @ 1065' w/750 sxs,
Circ. 178 sxs to surf.
12-1/4" hole.

Tubing Detail: 07/24/92

KBTH: 13.50'
Tubing Sub: 16.00'
121 JIS 2 7/8" J-55: 3677.86'
SN: 1.10'
perf sub: 4.10'
MAU w/ BP: 30.87'
Landed @: 3743.25'



Float Collar @ 3782'.

5-1/2", 15.5# K-55 csg set
@ 3858' w/ 1000 sxs cmt.
Circ. 75 sxs to surf.
7-7/8" hole.

Last Updated: 12/29/97

Date Completed: 07/24/92

Initial Production: 10 BOPD / 49 MCFGPD / 25 BWPD

Initial Formation: Grayburg From: 3596' To: 3864'

Completion Data:

06-22-92 Drill to 3860'. Log SCHL DLL-MSFL-CAL-GR, CNL-LDT-GR. Drill 3860' - 3868' (deepend 8'). Circ hole & run 5-1/2" csg. DO cmt to 3867' (PBD) & circ hole clean. Selectively perf 3791'-3864' (Zn 4 & 5) w/ 2 SPF. Selectively ACDZ (PPI pkr) w/ 420 gals 15% NEFE HCL. Swb Rec 3 BO + 58 BW / 20 runs; FER 5 BPH. Selectively perf 3748'-3784' (Zn 3) w 2 SPF. Selectively ACDZ (PPI pkr) w/ 252 gals 15% NEFE HCL. Swb Rec 30 BW (trace oil) / 4 runs; FER 3.5 BPH. Selectively perf 3596' - 3740' (AGU - Zn 2). Selectively ACDZ (PPI pkr) w/ 840 gals 15% NEFE HCL. Re-perf 3726' - 3740' (Zn 2) w/ 2 SPF. Selectively Re-ACDZ (Zn 2) w/ 168 gals. Swb 3596' - 3864' (AGU - Zn 5) Rec 5 BO + 96 BW / 20 runs; FER 11 BPH. TIH w/ prod. tbg & TO to production.

08-04-92 Test pump 13 BOPD + 100 MCFGPD + 67 BWPD.

10-23-95 Acdz w/4000 gals Viscosified Pentol 200. Swb.

Workover History:

Additional Data:

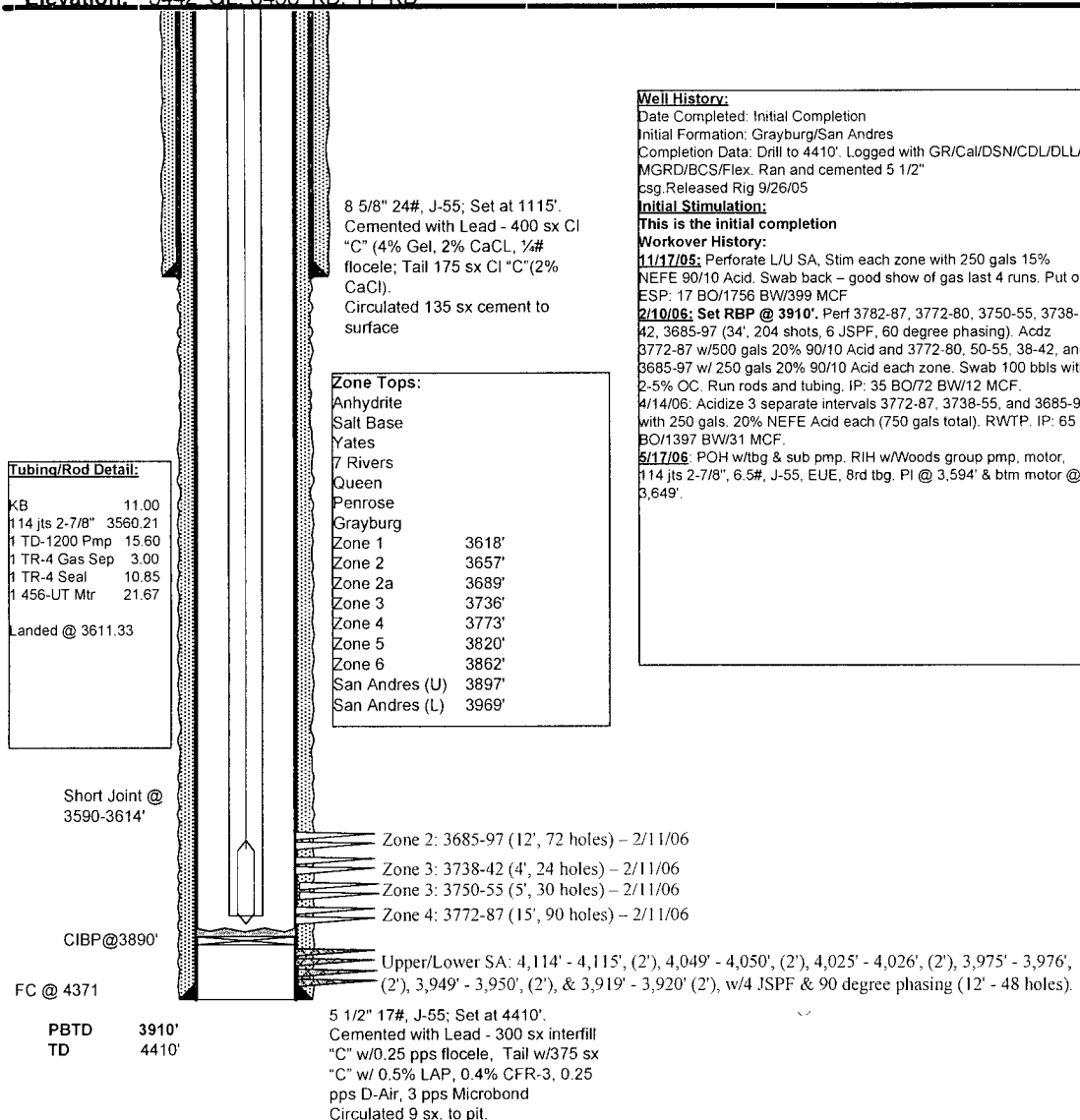
T/Queen @ 3328'
T/Penrose @ 3438'
T/AGU @ 3592'
T/Grayburg Zone 1 @ 3648'
T/Grayburg Zone 2 @ 3682'
T/Grayburg Zone 3 @ 3746'
T/Grayburg Zone 4 @ 3786'
T/Grayburg Zone 5 @ 3828'
T/San Andres @ (est) 3868'

XTO ENERGY



Well: Arrowhead Grayburg #391
Area: Eunice
Location: 1180' FSL; 120 FWL
 Section 7; T22S; R37E
County: Lea
Elevation: 3442' GL; 3453' KB; 11' KB

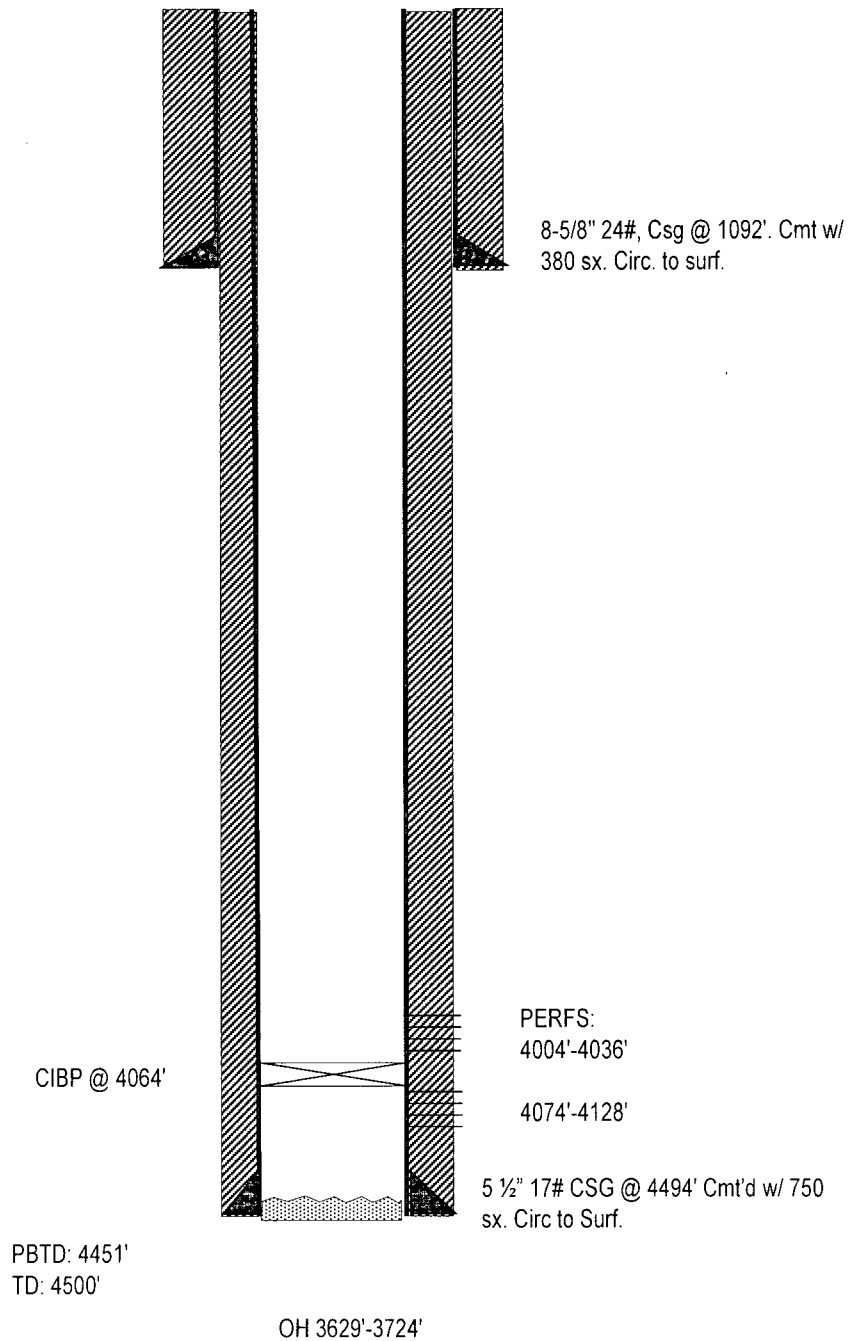
WI: 55.59%
NRI: 46.9882%
Spud: 9/26/2005
State: New Mexico



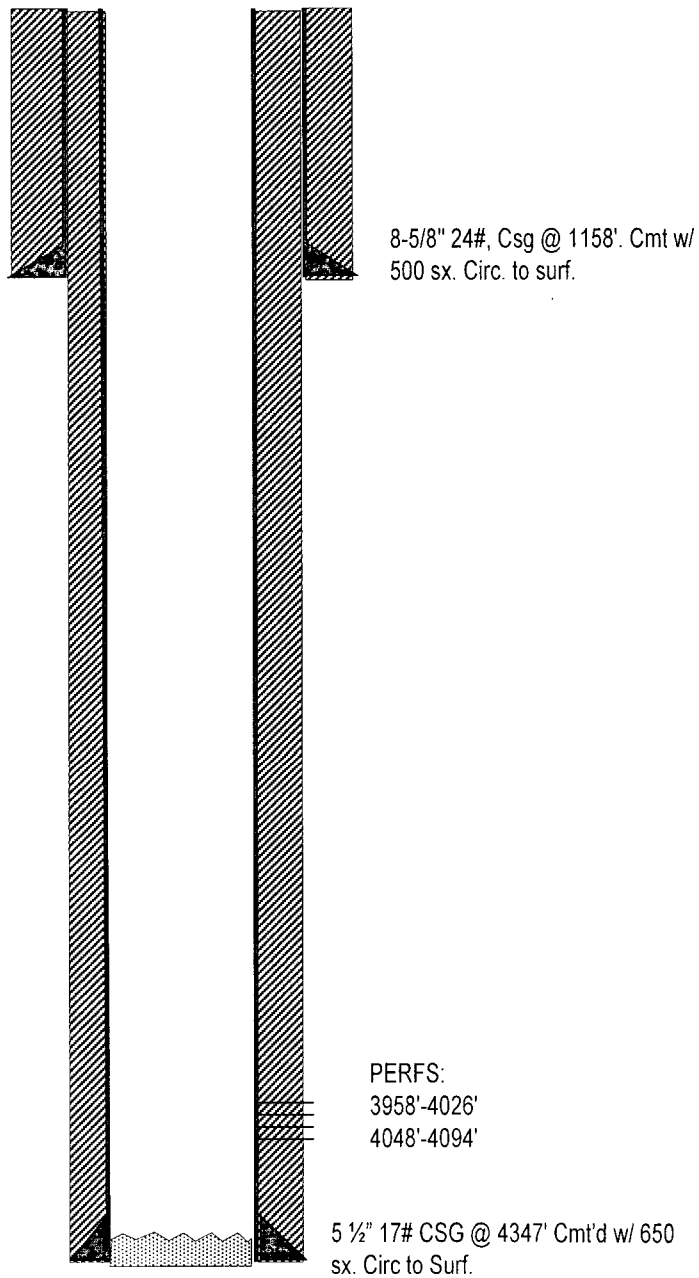
PREPARED BY: Greg Hicks

DATE: 5/18/06

Operator: Ranger Operating NM
Well: Elliott B Federal #15
API: 30-025-37830
Location: 990N & 1650E, 7-22S-37E
Lea Co.

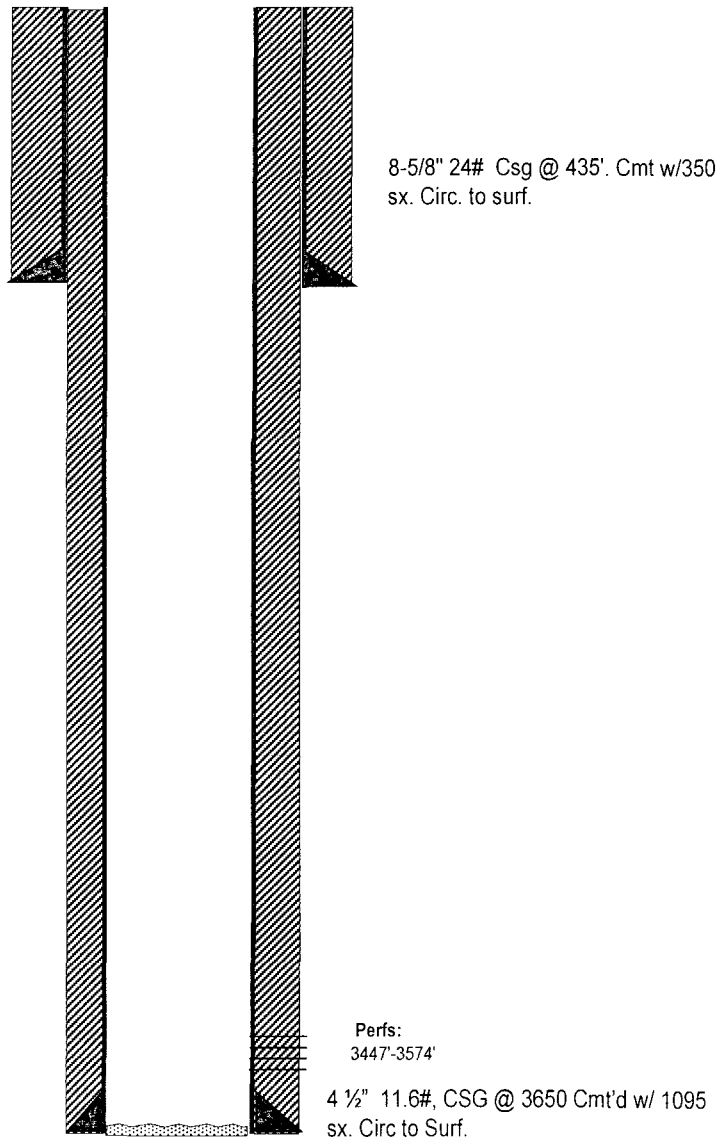


Operator: Ranger Operating NM
Well: Elliott B Federal #17
API: 30-025-38517
Location: 2150N & 1650E, 7-22S-37E
Lea Co.



PBTD: 4292'
TD: 4352'

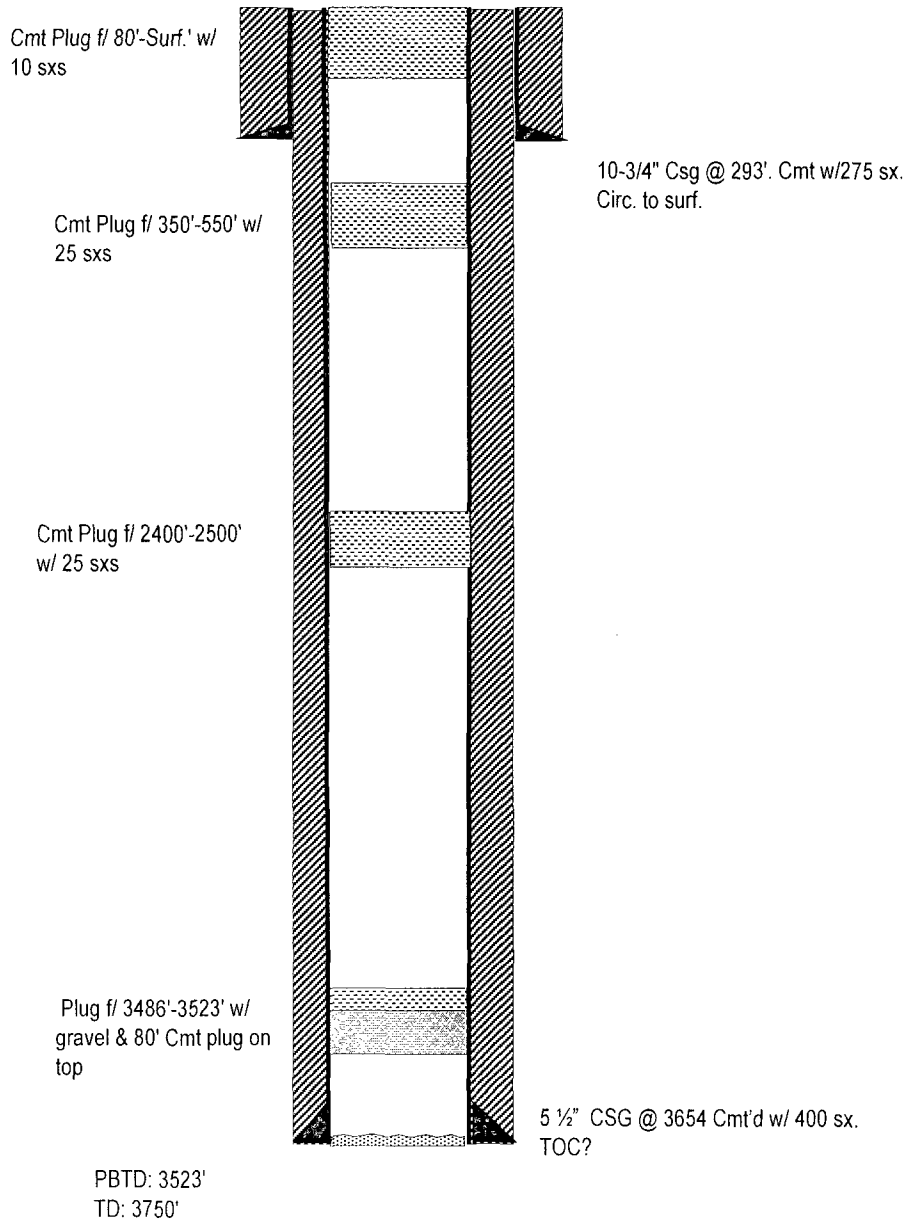
Operator: Gruy Petroleum Management
Co.
Well: H. T. Mattern #3
API: 30-025-32583
Location: 1930S & 2188W, 7-22S-37E
Lea Co.



TD: 3650'
PBD: 3600'

5 1/2" 14#, CSG @ 3650 Cmt'd w/ 350 sx.
TOC?

Operator: Gulf Oil Corporation
Well: H. T. Mattern (NCT-E) #8
API: 30-025-08884
Location: 2310N & 990E, 12-22S-36E
Lea Co.

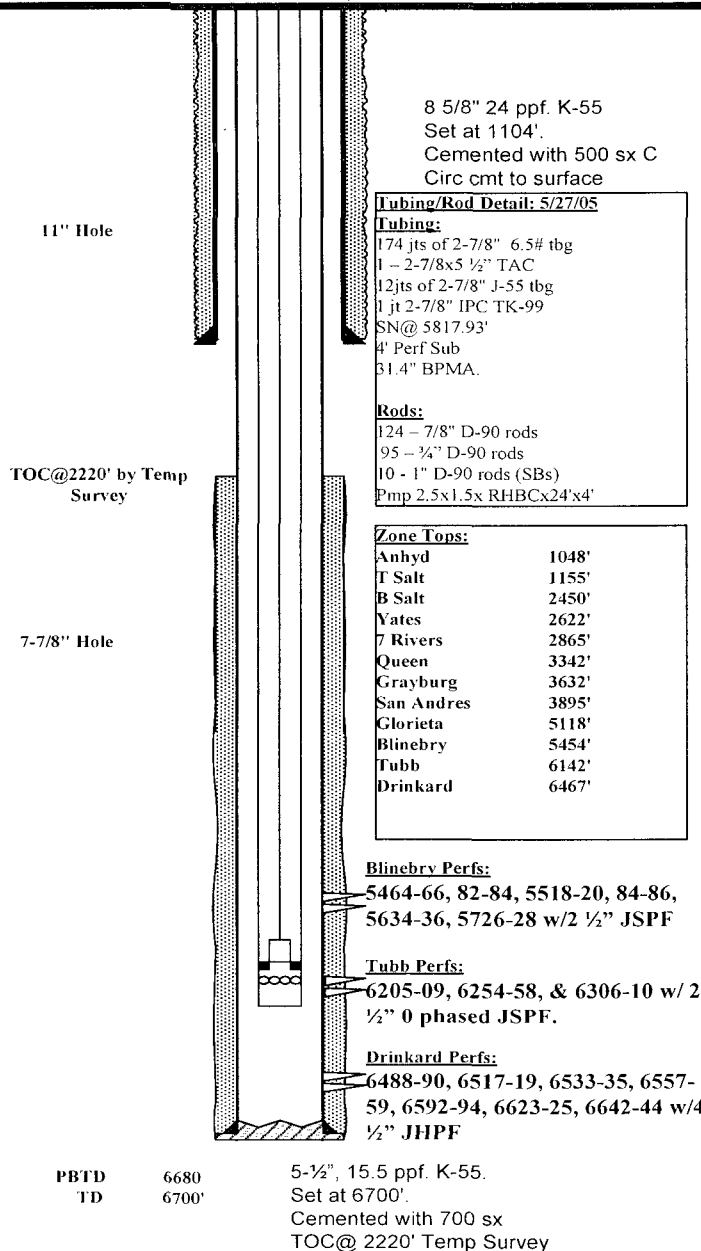


XTO ENERGY



Well: H. T. Mattern NCT D #14
Area: Eumont
Location: Section 7, T22S, R37E
County: Lea
Elevation: 3445' GL; 3459' KB

WI: 100%
NRI: 87.5%
Spud: 7/28/1975
State: New Mexico
API#: 30-025-25081



HT. Mattern NCT D #14

Spud: 7/28/1975

Initial Interval Completed: Drinkard

Current Completion: Blinebry, Tubb, & Drinkard

IP of Drinkard: 8/23/75: Flwng: 155 BO/68 BW on 18/64-250# FTP.

08/23/75: Perf 6488-90, 6517-19, 6533-35, 6557-59, 6592-94, 6623-25, 6642-44 w/4 1/2" JHPF. Break down each set of perfs. Each set communicated immediately. Acidize w/3,300 gals 15% NEFE Acid. Added 550# Benzoic Acid Flakes to last 1440 gals of acid. AIR 1 BPM, Max Press: 3200#. Flow back 18 BO on 18/64 chk. Frac well with 14,000 gal pad, 35000 gal gelled brine w/1 to 2 ppg 20/40 sand. Used 1250# Benzoic Acid Flakes and 1850# Grated Rock Salt for diversion

10/1/1975: Acidized well with 2,000 gals 15% NEFE Acid flushing with Lse crude. Pework-Flowing 60 BO/20 BW. Post Work: Flwing 116 BO/26 BW.

10/20/75: Install Rod Pumping equipment.

8/19/76: Pump 3,000 gals 15% NEFE Acid. Pework: 23 BO/10 BW; Post Work: 35/10.

9/26/79: Set CIBP @ 6385'. Perf Tubb at 6205-09, 6254-58, & 6306-10 w/ 2 1/2" 0 phased JSPF. Acidize each set of perforations with 300 gals 15% NEFE Acid. Frac 6205-6310 with 9,000 gelled pad, 21,000 gals frac gel, 38250# 20/40 sand. And 16 7/8" RCNB ball sealers. Flush to top perf. Swab and RWTP. IP: Pmp-33 BO/50 BW 24 hrs.

5/9/80: Drill out CIBP @ 6385'. Drive to bottom. Bail fill. Comingle Tubb and Drinkard and RWTP. IP: 20 BO/20 BW/68 MCF.

8/3/82: Set CIBP @ 6100'. Perf 5464-66, 82-84, 5518-20, 84-86, 5634-36, 5726-28 w/ 1/2" JSPF. Straddle each interval and breakdown with 200 gals/interval. Frac with 1200 gals 15% NEFE Acid, 48,000 gals gel, 63,000# 20/40 sand, & 20 RCNBs. AIR: 17.5 BPM, ISIP-1800#, Max Press 6500#. RWTP.

5/24/83: DO CIBP@6100'. Knock to 6680'. CO wellbore. Acidize 6205-6644 w/5,000 gals of 15% NEFE, 120 RCNBs. 2000# GRS, 1000# BAF, ISIP-350#, AIR 4 BPM. DHC - Blinebry, Tubb, Drinkard. IP of DHC: 14 BO/100 BW/111 MCF.

12/14/84: 2 drum Tretolite SP203 Gypton job down annulus.

11/10/86: 2 drums of Champion Gypton T-131 down annulus.

06/20/87: 2 drum Champion Gypton T-131 down annulus.

01/16/90: 2 drum Champion Gypton T-131 down annulus.

05/26/05: Change out pump. Lots of paraffin.



H.T. MATTERN NCT D #15

WELLBORE DIAGRAM

ELEV: 3449' GL

DATA

LOCATION: 400' FNL & 860' FWL, UNIT D. SEC. 7, T-22-S, R-37E
COUNTY/STATE: LEA COUNTY, NM
FIELD: EUMONT
FORMATION: TUBB
INITIAL IP: 100 BOPD, 28 BWPD
API #: 30-025-25092
CURRENT STATUS: TA'D 10/24/97

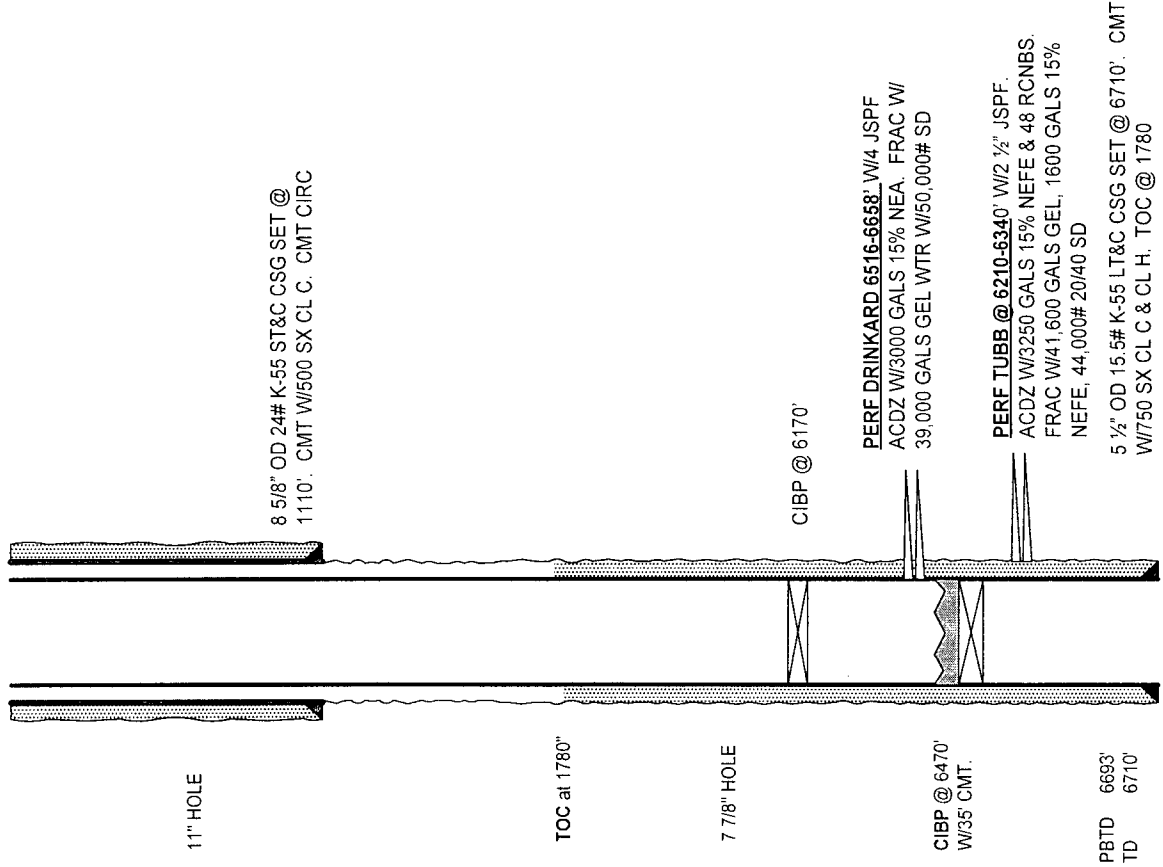
HISTORY

COMPLETION DATA:

08/13/75: SPUD 11" HOLE. RAN 8 5/8" OD 24# K-55 ST&C CSG SET @ 1110'.
CMT W/500 SX CL C. CMT CIRC. CONT DRLG. DRL 7 7/8" HOLE.
RAN 5 1/2" OD 15.5# K-55 LT&C CSG SET @ 6710'. CMT W/750 SX
CL C & CL H. TOC @ 1780'.
08/16/75: PERF DRINKARD 6516-6658' W/4 JSPF. ACDZ W/3000 GALS 15%
NEA. FRAC W/39,000 GALS GEL WTR W/50,000# SD.
09/16/75: P 100 BO, 28 BW 24/HRS.

WORKOVER HISTORY:

08/16/76: ACDZ W/3000 GALS 15% NEFE HCL W/SCALE INHIB. BEFORE 53
BO. AFTER 251 BO.
09/25/78: ACDZ W/500 GALS 15% NEFE W/SCALE INHIB.
11/09/82: TA DRINKARD. SET CIBP @ 6430'. PERF TUBB @ 6210-6340' W/2
1/2" JSPF. ACDZ W/3250 GALS 15% NEFE & 48 RCNBS. FRAC
W/41,600 GALS GEL, 1600 GALS 15% NEFE, 44,000# 20/40 SD.
PMPD 20 BO, 160 BW, 89 MCF.
02/22/85: RECEIVED APPROVAL TO DHC.
07/12/85: PMP 1000 GALS 15% NEFE + 55 GALS GYPTRON T-130. DRILL
OUT CIBP TO 6690'. ACDZ W/1000 GALS 15% NEFE & PMP 55
GALS GYPTRON T-130 DWN TBG.
10/24/97: SET CIBP @ 6470' W/35 CMT ON TOP. SET CIBP @ 6170'.
TAGGED @ 6170'. TA'D WELL.





H.T. MATTERN NCT D #16

WELLBORE DIAGRAM

ELEV: 3455' GL



LOCATION: 1650' FEL & 610' FNL, UNIT E. SEC. 7, T-22-S, R-37E

COUNTY/STATE: LEA COUNTY, NM

FIELD: EUMONT

FORMATION: BLINEBRY/TUBB/DRINKARD

INITIAL IP: PMPG 22 BO, 160 BW, 65 MCF 24/HRS

API #: 30-025-25104

CURRENT STATUS: Shut In

COMPLETION DATA:

08/28/75: SPUD 11" HOLE. RAN 8 5/8" OD 24# K-55 ST&C CSG SET @ 1082'. CMT W/500 SX CL C. CMT CIRC. CONT DRLG. DRL 7 7/8" HOLE. RAN 5 1/2" OD 15.5# K-55 LT&C CSG SET @ 6760'. CMT W/650 SX CL C & CL H. TOC @ 2275' BY TS.

09/15/75: PERF DRINKARD 6510-6670' W/4 1/2" JSPF. ACDZ W/3200 GALS 15% NEA & 550# BAF.

09/18/75: FRAC 6510-6670' W/14,000 GALS GEL WTR W/35,000# GAL CONTAINING 1-2 SPG.

09/29/75: ACDZ 6510-6670 W/2000 GAL 15% HCL. FLSH W/36 BO.

WORKOVER HISTORY:

02/12/76: ACDZ 6510-6670' W/5000 GALS 15% NEFE HC1 W/165 GAL SP-203, 5 GAL, AR - 25.

10/25/78: ACDZ W/900 GALS 15% NEFE HC1.

10/27/78: FRAC W/30,000 GALS GEL WTR, 38,250# SD, 500 GAL 15% NE HC1. FLSH W/1500 GAL GEL WTR.

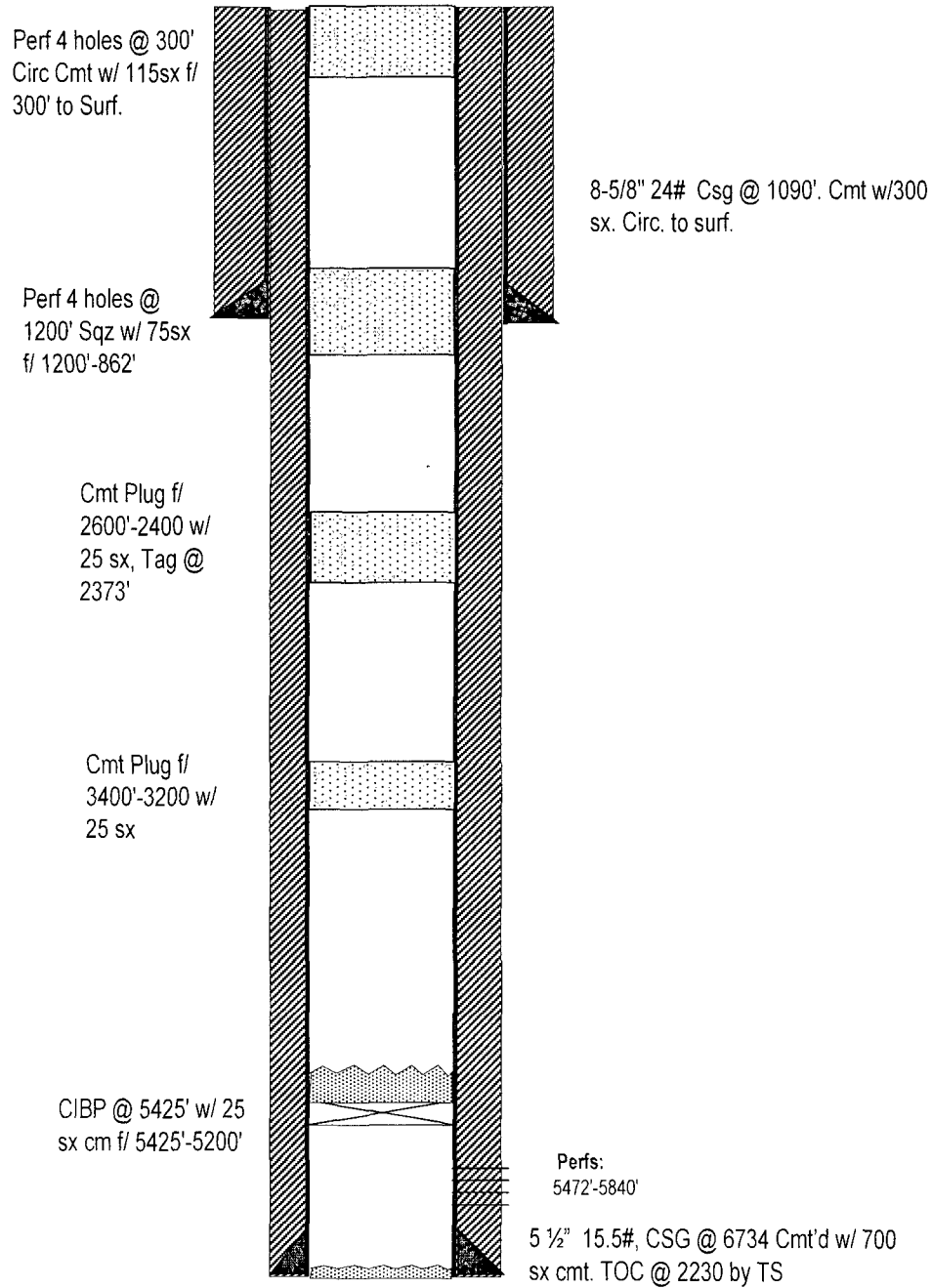
12/26/79: PERF TUBB FR/6212'-6670'. ACDZ W/110 GAL SP-203, 5 GAL OW-W/100 BFW W/5 GAL OW-77, 10 GAL RP-2336.

11/17/82: SET CIBP'S @ 6450' & 6090'. PERF BLINEBRY FR/5493-5861. SPOT 378 GAL 15% NEFE HC1. ACDZ W/3500 GAL 15% NEFE.

11/18/82: FRAC W/59,500 GAL GEL WTR, 2100 GAL 15% NEFE, 71,625# 20/40 SD.

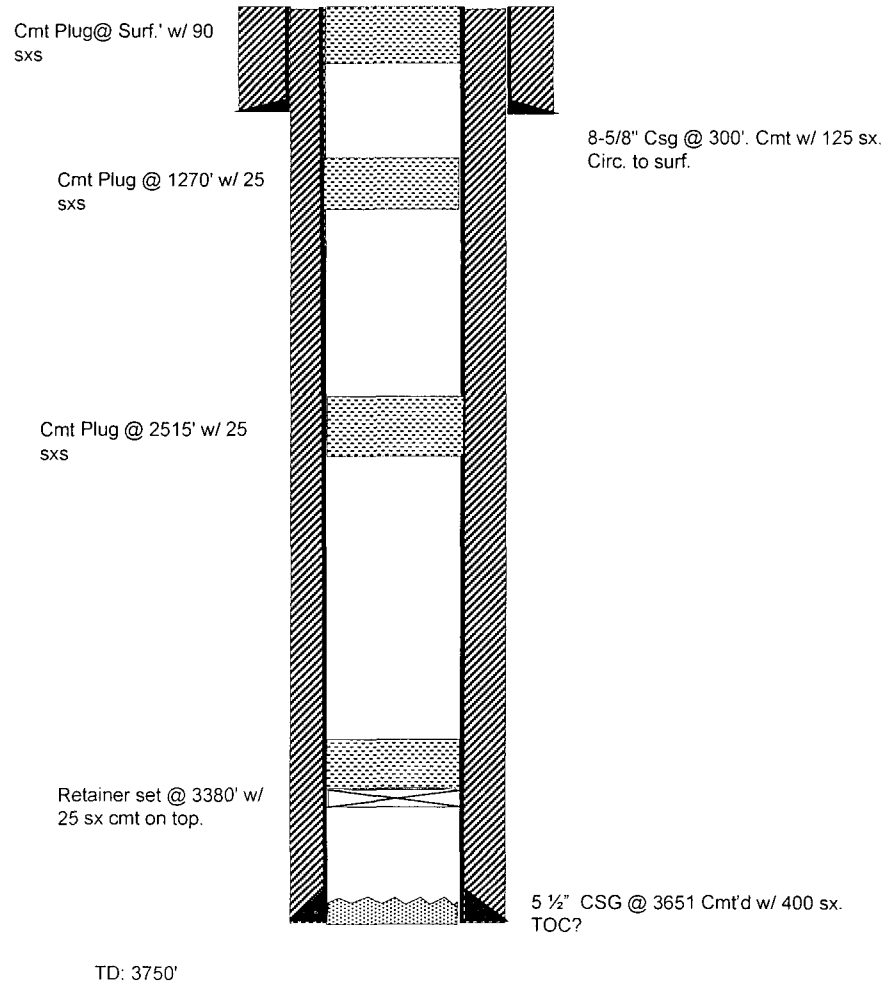
06/22/83: SET RBP @ 5400', TST 500#, CAP RBP W/10' FRAC SD. PERF 1112' W/4 1/2" 90 DEG JH. SET CMT RET @ 1000'. PMP 550 SX CL C. SQZ. DO CMT RET & CMT. RIH W/TBG, RODS & PMP. PMPG 22 BO, 160 BW, 65 MCF 24/HRS.

Operator: Chevron
 Well: H.T. Mattern NCT-D #17
 API: 30-025-25113
 Location: 1650N & 1720W, 22S-7-37E

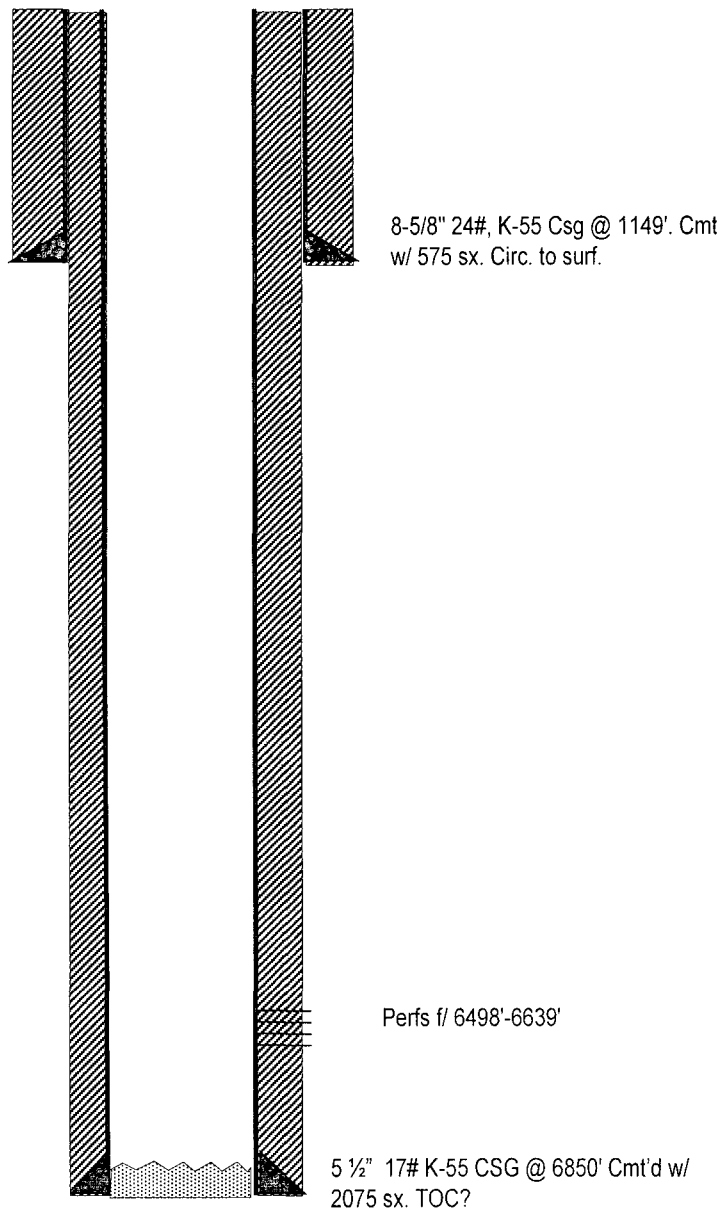


TD: 6735'

Operator: Meridian Oil
Well: H. T. Mattern #1
API: 30-025-10097
Location: 1650S & 330W, 7-22S-37E
Lea Co.

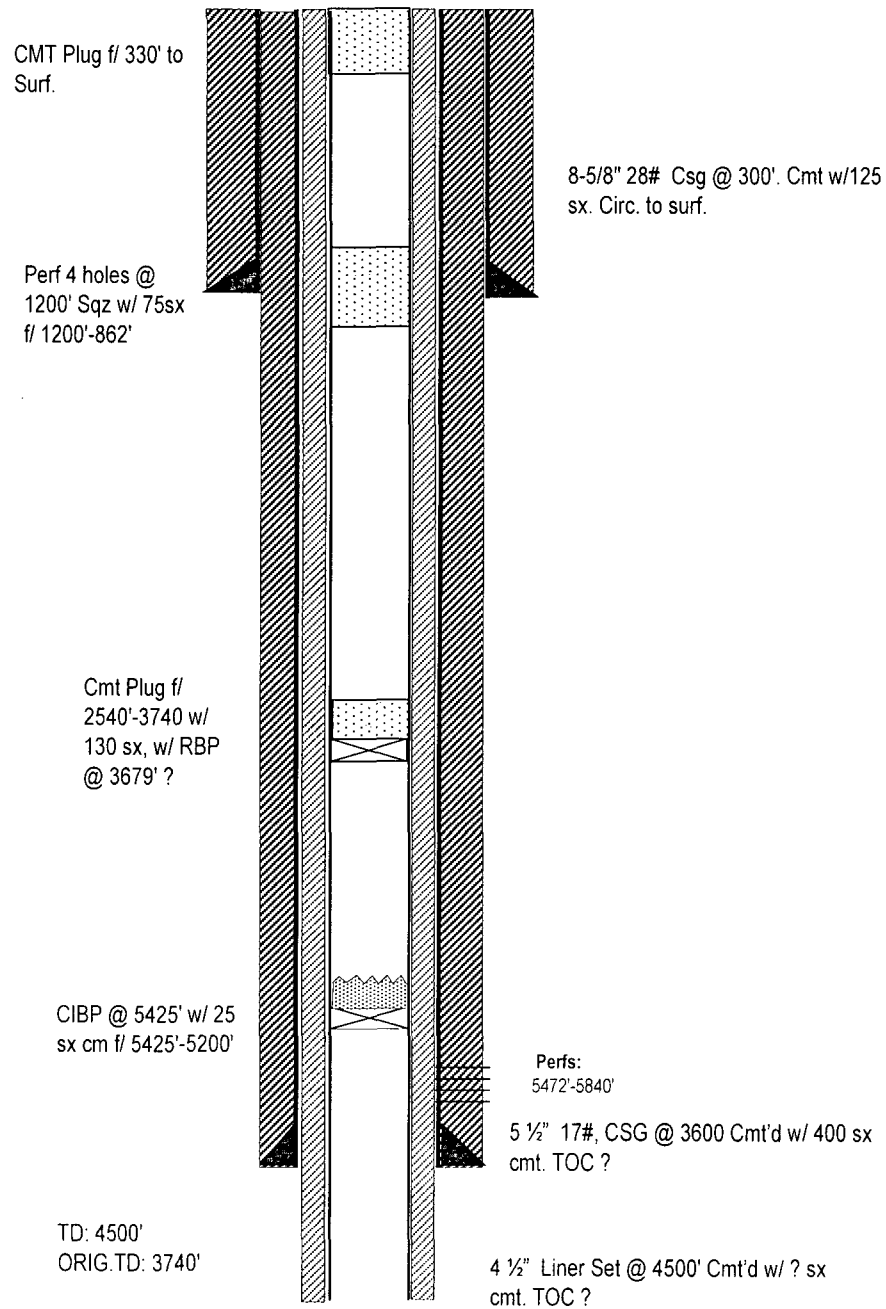


Operator: ME-TEX O&G
Well: Mattern #1
API: 30-025-25970
Location: 1650S & 1850W, 7-22S-37E
Lea Co.

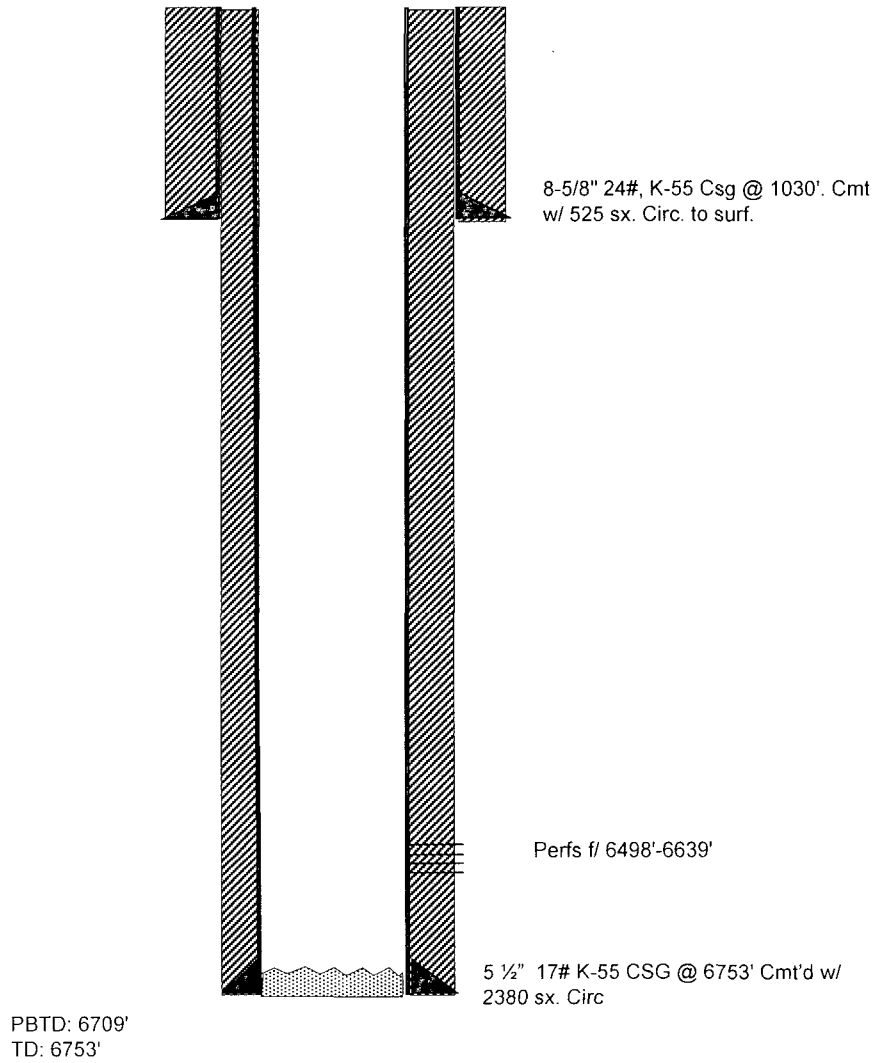


PBTD: 6768'
TD: 6850'

Operator: Chevron
Well: Mattern #2
API: 30-025-10098
Location: 1650S & 1563W, 7-22S-37E



Operator: ME-TEX O&G
Well: Mattern #2
API: 30-025-26673
Location: 1650S & 2310E, 7-22S-37E
Lea Co.

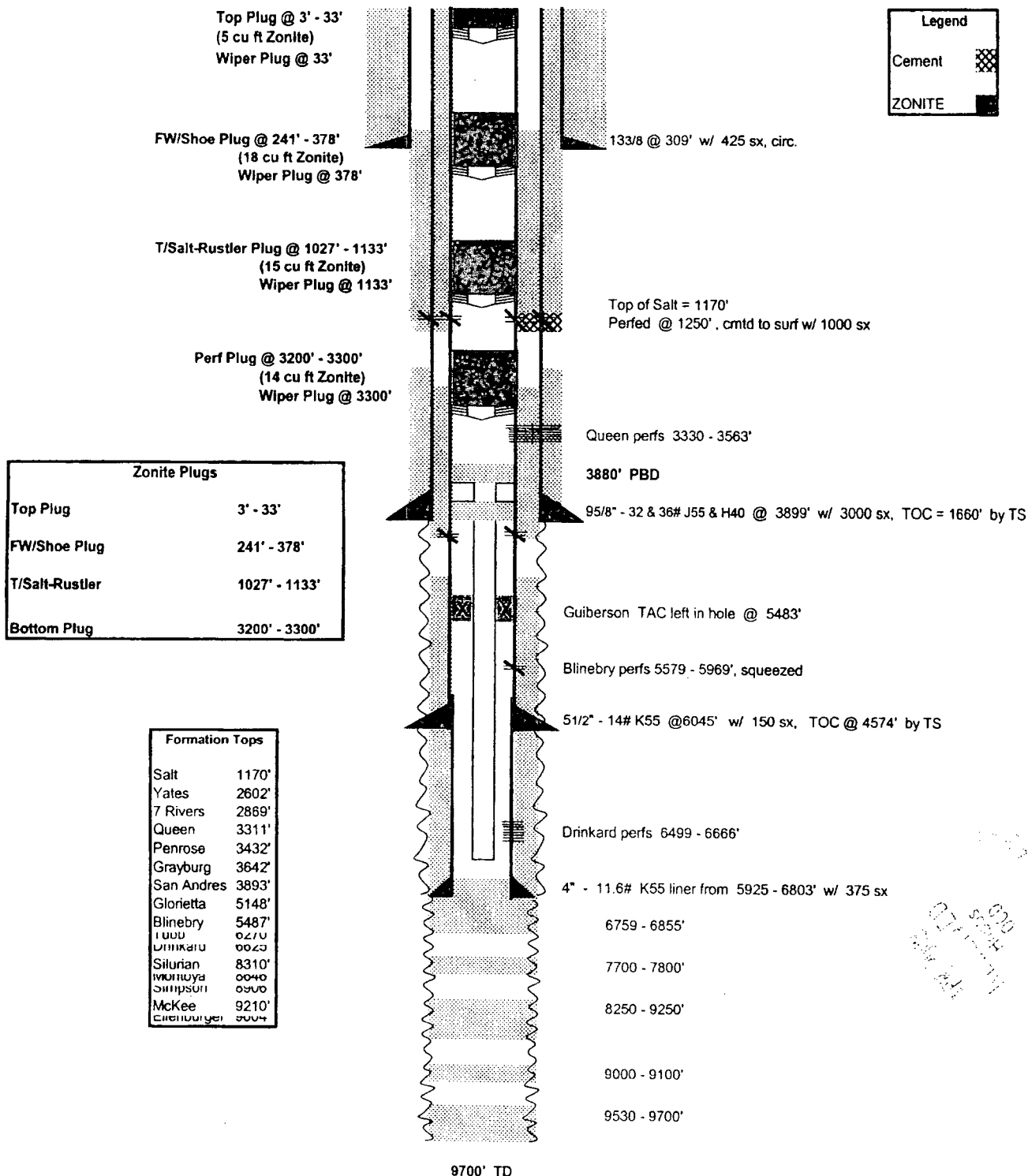


Final P&A Schematic

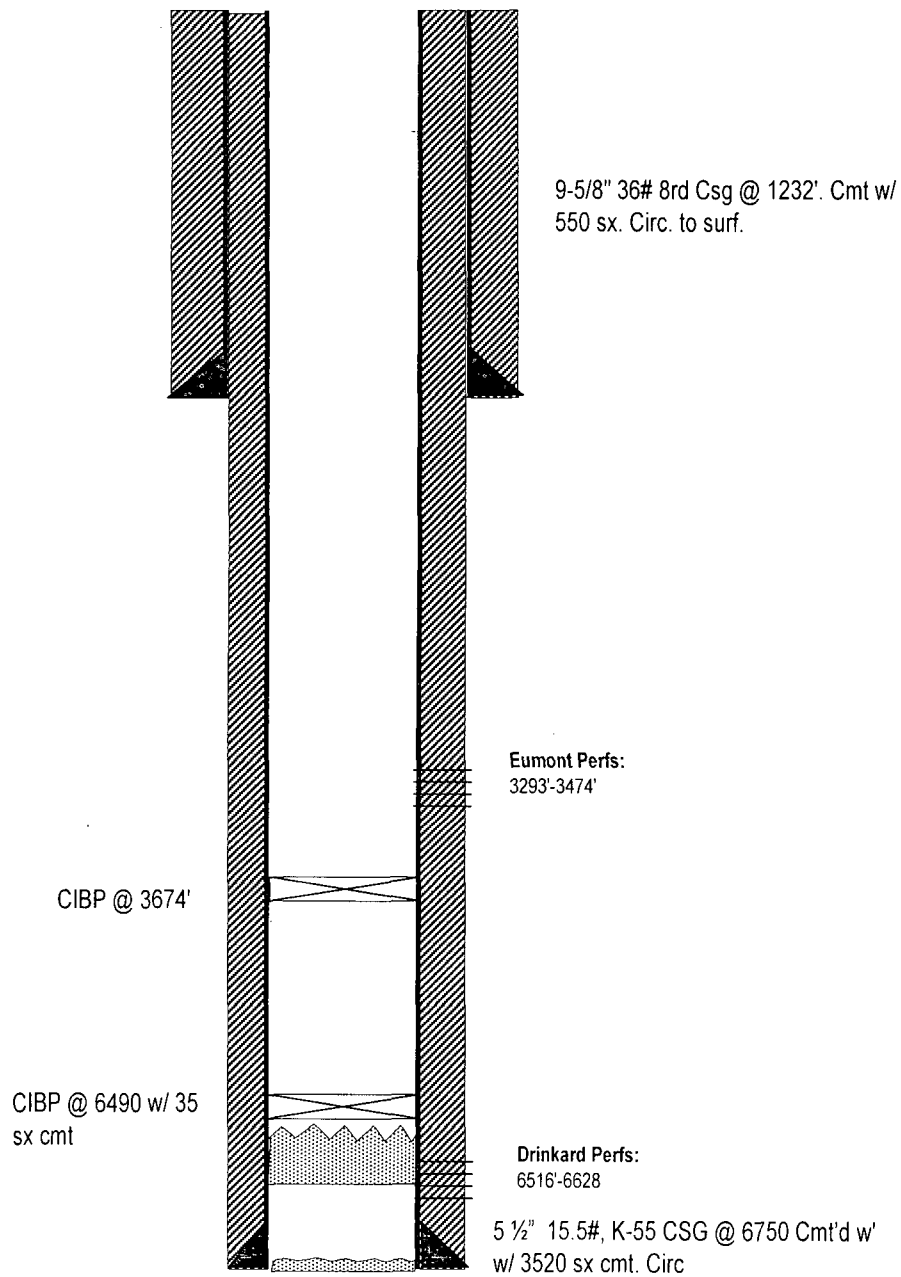
WELL NAME: H T Mattem NCT-E #13
API NUMBER: 30-025-08889
COORDINATES: 2310' FNL & 330' FEL Unit H
SEC/TWN/RNG: 12 - 22S - 36E
CNTY/STATE: Lea, NM

OPERATOR: Chevron
Field: Eumont/Jalmat
DATE: 4/18/2000
BY: CRS

RKB = 14.3'

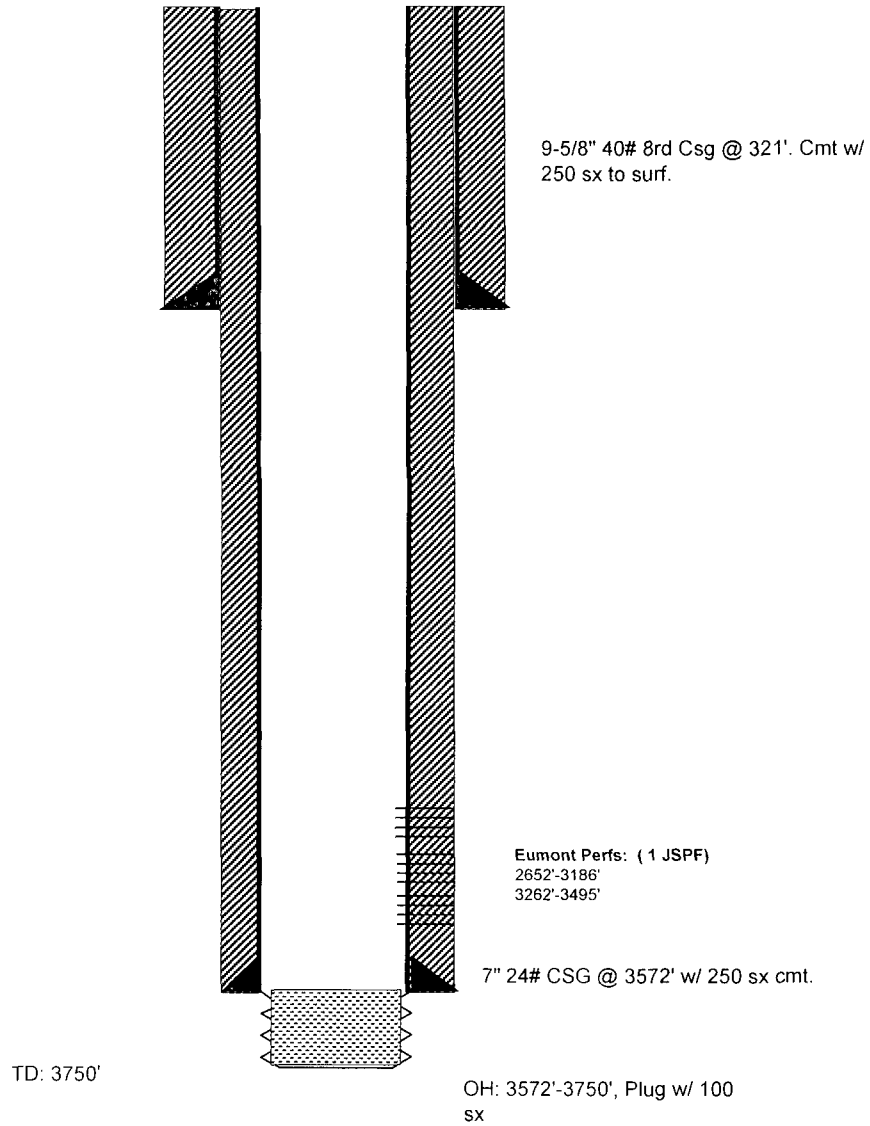


Operator: BP America Prod Co.
Well: State 157-D-13
API: 30-025-26624
Location: 1980S & 330E, 22S-12-36E

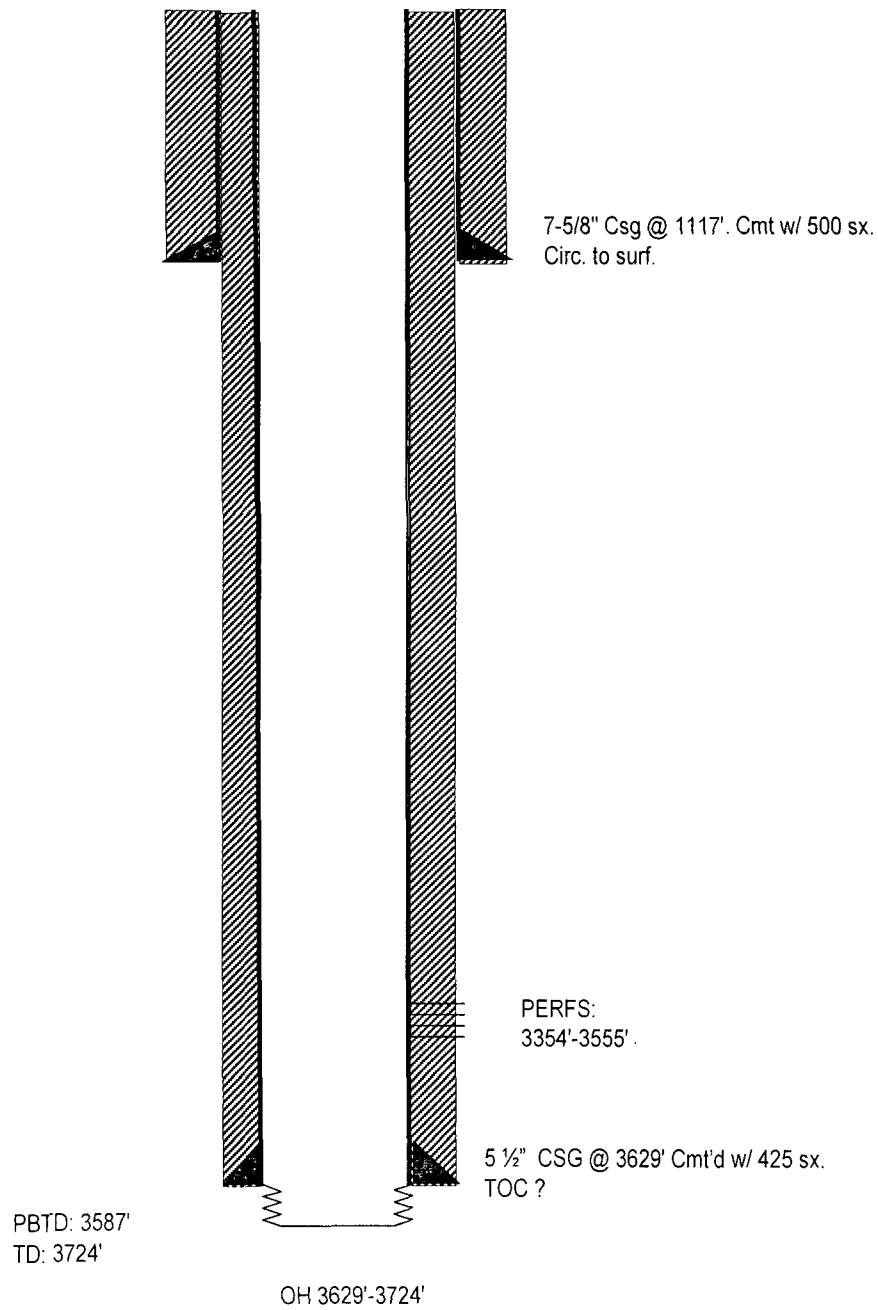


TD: 6750'

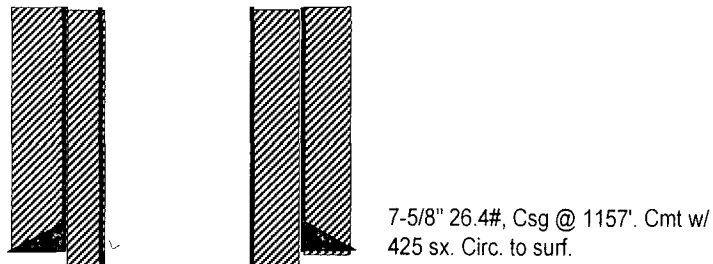
Operator: BP America Prod Co.
Well: State 157-D-4
API: 30-025-08885
Location: 2310S & 990E, 22S-12-36E



Operator: Ranger Operating NM
Well: Elliott B #5
API: 30-025-10091
Location: 1980N & 1980E, 7-22S-37E
Lea Co.



Operator: Ranger Oil NM Inc.
Well: Elliott B-4
API: 30-025-10090
Location: 660N & 1980E, 7-22S-37E
Lea Co.



PERFS:
3057'-3605'

? Perforated?

5 1/2" 17# CSG @ 3643' Cmt'd w/ 425 sx.
TOC @ 2106'

PBTD:
TD: 3723'

OH 3643'-3723'



Chevron U.S.A. Inc.
P.O. Box 1150, Midland, TX 79702

Permian Basin Production Business Unit

June 2, 1992

ARROWHEAD GRAYBURG UNIT #199
CASING CEMENT JOB

Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241-1980

Attn: Mr. Jerry Sexton

Gentlemen:

As per our conversation on Wednesday, May 27, 1992, the following is a summary of events that occurred from May 10- May 31, 1992.

After drilling out from under the surface casing we encountered numerous air pockets, which were successfully circulated out and drilling continued on to TD at 3860'. A 5 1/2" casing string was set and cemented in two stages. The 1st stage was cemented with 450 sacks. The DV tool was opened and 20 sacks of cement were circulated out on the 1st stage. The 2nd stage (1000 sacks) was pumped and returns were lost after circulating one bbl. to surface. An additional 300 sacks of 50/50 cal/seal cement was pumped through the 8 5/8" x 5 1/2" bradenhead to seal off the air blow.

A Cement Bonding Log was run on May 31, 1992 and showed isolation between all critical areas of concern.

Please feel free to call me with any questions that you might have concerning this matter.

P.R. Matthews
for M.E. Akins

PRM/prm
enclosures

Jones, William V., EMNRD

From: Kristy_Ward@xtoenergy.com
Sent: Monday, February 18, 2008 2:52 PM
To: Jones, William V., EMNRD
Subject: Re: WFX application from XTO: Arrowhead Grayburg Unit #199 (API No. 30-025-31560)

Mr. Jones, I have just pulled the attached links and XTO is now back in compliance. I have also answered the questions below you requested in red.

Thank You.

Kristy S. Ward
XTO Energy, Inc.
Ph: 432-620-6740
Fax: 432-684-9681
kristy_ward@xtoenergy.com

"Jones, William V., EMNRD" <William.V.Jones @state.nm.us>	<Kristy_Ward@xtoenergy.com>	To
02/14/2008 04:11 PM	"Ezeanyim, Richard, EMNRD" <richard.ezeanyim@state.nm.us>, "Macquesten, Gail, EMNRD" <gail.macquesten@state.nm.us>	cc
	Subject WFX application from XTO: Arrowhead Grayburg Unit #199 (API No. 30-025-31560)	

Hello Ms. Ward:

After reviewing your application:

1) Why is the requested interval for injection 3625 to 3884 while the well is only perforated from 3682 to 3876 and your post conversion wellbore diagram does not show the "requested" range of perforations?

XTO wanted to get the good porosity interval permitted as the injection interval. Reservoir was unsure whether they wanted to perforate the 3625'-3682' so we included it in the permit so we didn't have to amend later on if we wanted to add this pay. 3625'-3682' is within our unitized interval and that was another reason for including it.

2) What is your ZIP code in Midland? Your "Lorraine" address on our records shows 79701 but the application says 79705. If our records are not correct, please contact Dorothy Phillips to correct.

The zip code 79701 is correct.

I do have your permit ready for release, but it appears that XTO is now out of compliance with the number of inactive wells allowed in Rule 40. Please contact Gail MacQuesten to

work out an Agreed Compliance Order or otherwise come back into compliance with Rule 40.

Let me know about the injection depths and zip code and also let me know when XTO will be eligible for more injection permits. Whenever the following links show XTO is in compliance, I can release?

[http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?Production=15&Operator=5380&ACO=Exclude&TA=Exclude)

[Production=15&Operator=5380&ACO=Exclude&TA=Exclude](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380)

<http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380>

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

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This inbound email has been scanned by the MessageLabs Email Security System.

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Thursday, February 14, 2008 3:11 PM
To: 'Kristy_Ward@xtoenergy.com'
Cc: Ezeanyim, Richard, EMNRD; Macquesten, Gail, EMNRD
Subject: WFX application from XTO: Arrowhead Grayburg Unit #199 (API No. 30-025-31560)

Hello Ms. Ward:

After reviewing your application:

- 1) Why is the requested interval for injection 3625 to 3884 while the well is only perforated from 3682 to 3876 and your post conversion wellbore diagram does not show the "requested" range of perforations?
- 2) What is your ZIP code in Midland? Your "Loraine" address on our records shows 79701 but the application says 79705. If our records are not correct, please contact Dorothy Phillips to correct.

I do have your permit ready for release, but it appears that XTO is now out of compliance with the number of inactive wells allowed in Rule 40. Please contact Gail MacQuesten to work out an Agreed Compliance Order or otherwise come back into compliance with Rule 40.

Let me know about the injection depths and zip code and also let me know when XTO will be eligible for more injection permits. Whenever the following links show XTO is in compliance, I can release?

[http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?Production=15&Operator=5380&ACO=Exclude&TA=Exclude)

[Production=15&Operator=5380&ACO=Exclude&TA=Exclude](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380)

<http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380>

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

2/14/2008

Jones, William V., EMNRD

From: Macquesten, Gail, EMNRD
Sent: Friday, February 15, 2008 9:03 AM
To: Jones, William V., EMNRD; 'Kristy_Ward@xtoenergy.com'
Cc: Ezeanyim, Richard, EMNRD
Subject: RE: WFX application from XTO: Arrowhead Grayburg Unit #199 (API No. 30-025-31560)
Attachments: 2008 2-14 XTO letter re rebutting presumption as to 3 wells.doc

Will – XTO Energy, Inc. was able to provide proof that three of the wells on the inactive well list are actually in compliance. They should fall off the list as soon as the district is able to process the paperwork. In the meantime, Daniel has issued a letter recognizing that the wells should not be counted when calculating whether XTO is in compliance with Rule 40. A copy of the letter is attached.

Thank you for checking on Rule 40 compliance, and I apologize for not copying you on the letter. I wasn't aware that XTO had any pending injection permits.

Thanks- Gail

From: Jones, William V., EMNRD
Sent: Thursday, February 14, 2008 3:11 PM
To: Kristy_Ward@xtoenergy.com
Cc: Ezeanyim, Richard, EMNRD; Macquesten, Gail, EMNRD
Subject: WFX application from XTO: Arrowhead Grayburg Unit #199 (API No. 30-025-31560)

Hello Ms. Ward:

After reviewing your application:

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Let me know about the injection depths and zip code and also let me know when XTO will be eligible for more injection permits. Whenever the following links show XTO is in compliance, I can release?

[http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?Production=15&Operator=5380&ACO=Exclude&TA=Exclude)

[Production=15&Operator=5380&ACO=Exclude&TA=Exclude](http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380)

<http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=5380>

Regards,

William V. Jones PE
 New Mexico Oil Conservation Division
 1220 South St. Francis
 Santa Fe, NM 87505
 505-476-3448

2/15/2008

Injection Permit Checklist 2/8/07

SWD Order Number 434 Dates: Division Approved _____ District Approved _____

Well Name/Num: Arrowhead Grayburg Unit #199 Date Spudded: 6/12/92

API Num: (30-) 025-31560 County: LEA SEP

Footages 2315 FNL/1550 FWL Sec 7 Tsp 22S Rge 31E

Operator Name: XT Energy, INC Contact KRISTY Ward

Operator Address: 200 N. LORRAINE, SUITE 4800, MIDLAND, TX, 79701

Current Status of Well: TAED well Planned Work: _____ Inj. Tubing Size: 2 3/8" 3541

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	<u>12 1/2 8 5/8</u>		<u>950</u>	<u>CRC</u>
Intermediate				
Production	<u>7 7/8 5 1/2</u>	<u>3 584</u>	<u>1750</u>	<u>CRC 3464</u>
Last DV Tool				<u>See CBL</u>
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion ✓ After Conversion ✓

Checks (Y/N): Well File Reviewed: ✓ ELogs in Imaging ✓

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash			
Capitan Reef			
Cliff House, Etc:			
Formation Above	<u>3608</u>	<u>G.B.G.</u>	
Top Inj Interval	<u>3625 3680</u>	<u>GRBG</u>	
Bottom Inj Interval	<u>3884 3816</u>	<u>"</u>	
Formation Below			

725 PSI Max. WHIP
NO Open Hole (Y/N)
 Deviated Hole (Y/N)

Fresh Water: Depths: _____ Wells(Y/N) _____ Analysis Included (Y/N): Yes Affirmative Statement ✓

Salt Water Analysis: Injection Zone (Y/N/NA) _____ DispWaters (Y/N/NA) _____ Types: _____

Notice: Newspaper(Y/N) ✓ Surface Owner Nymeyer Property Mineral Owner(s) _____

Other Affected Parties: Ranger, Cimarron, METEX, BP Amer.

AOR/Repairs: NumActiveWells 23 Repairs? _____ Producing in Injection Interval in AOR Yes

AOR Num of P&A Wells 7 Repairs? _____ Diagrams Included? Yes RBOMS Updated (Y/N) _____

Well Table Adequate (Y/N) Yes AOR STRs: Sec _____ Tsp _____ Rge _____ UIC Form Completed (Y/N) _____

New AOR Table Filename _____ Sec _____ Tsp _____ Rge _____ This Form completed _____

Conditions of Approval: Sec _____ Tsp _____ Rge _____ Data Request Sent _____

None
Send copy of CBL to Halls

AOR Required Work: Top of Good CMT = 3464

Required Work to this Well: BY CBL