

PMX 12/2/99



December 3, 1999

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Expansion of Pressure Maintenance Project
North Hobbs (Grayburg/San Andres) Unit
Hobbs; Grayburg - San Andres Pool
Well No. 332
Letter J, Section 30, T-18-S, R-38-E
Lea County, NM

Gentlemen:

Altura Energy LTD respectfully requests administrative approval for expansion of the subject pressure maintenance project by converting North Hobbs (G/SA) Unit Well No. 332 from production to water injection. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell Western E&P Inc. (Altura's predecessor) to conduct the North Hobbs (G/SA) Unit pressure maintenance project within the Hobbs; Grayburg - San Andres Pool.

The following data is submitted in support of this request:

- Form C-108 with miscellaneous data attached
- Form C-102
- A map reflecting the location of the proposed injection well (No. 332). The map identifies all wells located within a two-mile radius of the proposed injector and has a one-half mile radius circle drawn around the proposed injection well which identifies the well's Area of Review.
- An injection well data sheet
- A tabulation of data on all wells of public record within the well's Area of Review
- Schematics of plugged wells that are within the well's Area of Review
- A list of Offset Operators and Surface Owners (these parties have been notified of this application by certified mail)



- An Affidavit of Publication and copy of the legal advertisement that was published in the county in which the well is located.

Your favorable consideration of our request will be appreciated. If you have any questions of a technical nature, please call David Nelson at (505) 397-8211. Otherwise, please call me at (281) 552-1158.

Very truly yours,

A handwritten signature in cursive script that reads "Mark Stephens".

Mark Stephens
Business Analyst (SG)

CC: Oil Conservation Division
Hobbs District Office
P.O. Box 1980
Hobbs, NM 88241

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

Bureau of Land Management
Roswell District Office
2909 West Second Street
Roswell, NM 88201

Offset Operators (see attached list)

Surface Owners (see attached list)

APPLICATION FOR AUTHORIZATION TO INJECT

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

✓ II. OPERATOR: Altura Energy LTD

ADDRESS: P.O. Box 4294, Houston, TX 77210-4294

CONTACT PARTY: Mark Stephens, Rm. 338-B, WL2 PHONE: (281) 552-1158

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

✓ IV. Is this an expansion of an existing project? Yes _____ No
If yes, give the Division order number authorizing the project: R-6199 (11/30/79)

✓ 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: Mark Stephens TITLE: Business Analyst (SG)

SIGNATURE: Mark Stephens DATE: 12/3/99

* 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: Hearing October 3, 1979; Case No. 6653, Order No. R-6199

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

III. WELL DATA

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

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

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

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

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and 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, 2040 South Pacheco, 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.

Attachment To Form C-108
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit
Well No. 332
Letter J, Section 30, T-18-S, R-38-E
Lea County, New Mexico

III. Well Data

- B.(5) Next higher oil zone -- Grayburg @ +/- 3700'
- Next lower oil zone -- Glorieta @ +/- 5300'

VII. Proposed Operation

1. Average Injection Rate 1500 BWPD
Maximum Injection Rate 4000 BWPD
2. Closed Injection System
3. Average Injection Pressure 500 PSIG
Maximum Injection Pressure 805 PSIG (approx.)
(will not exceed 0.2 psi/ft. to top perforation)
4. Source Water – San Andres Produced Water
(Champion Technologies, Inc. analysis attached)

IX. Stimulation Program

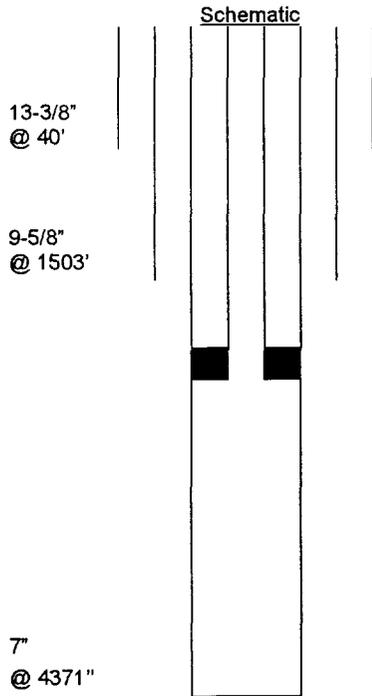
Acid treatment of unitized perforations will be performed during conversion work

- XI. Fresh Water Sample Analysis
(Laboratory Services, Inc. analysis attached – 4 ea.)

- XII. Altura Energy LTD affirms that available geologic and engineering data has been examined resulting in the finding of no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

INJECTION WELL DATA SHEET

Operator Altura Energy LTD.		Lease North Hobbs G/SA Unit		County Lea	
Well No. 30-332	Footage Location 2470 FSL & 1600 FEL	Section 30	Township 18-S	Range 38-E	Unit Letter J



Tubular Data

Surface Casing
 Size 13-3/8 Cemented with _____ sxs.
 TOC _____ Determined by _____
 Hole size _____

Intermediate Casing
 Size 9-5/8 Cemented with 650 sxs.
 TOC Surf Determined by Circ.
 Hole size _____

Long string Casing
 Size 7" Cemented with 800 sxs.
 TOC Surf Determined by Circ.
 Hole size _____

Total depth 4371'

Injection interval
4000 feet to 4350 feet

Completion type Perforations

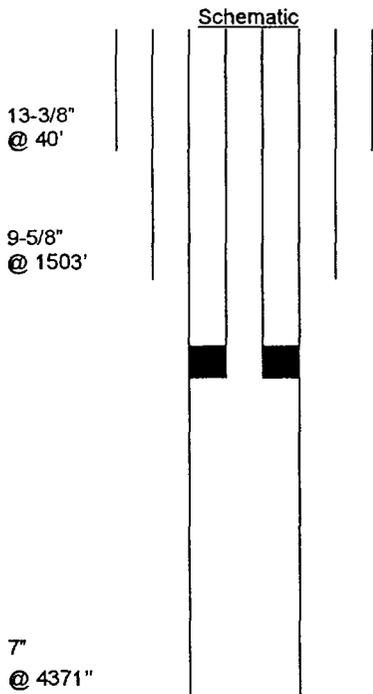
Tubing size 2-7/8" lined with Fiberglass Epoxy set in a
Giberson Uni VI packer at ±3950 feet
 (brand and model)

Other Data

- Name of the injection formation San Andres
- Name of field or Pool Hobbs (Grayburg/San Andres) Pool
- Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? San Andres producer
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
None
- Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.
Grayburg - 3700, Glorieta - 5300

INJECTION WELL DATA SHEET

Operator Altura Energy LTD.		Lease North Hobbs G/SA Unit			County Lea
Well No. 30-332	Footage Location 2470 FSL & 1600 FEL	Section 30	Township 18-S	Range 38-E	Unit Letter J



<u>Surface Casing</u>		<u>Tubular Data</u>	
Size	<u>13-3/8</u>	Cemented with	_____ sxs.
TOC	_____	Determined by	_____
Hole size	_____		
<u>Intermediate Casing</u>			
Size	<u>9-5/8</u>	Cemented with	<u>650</u> sxs.
TOC	<u>Surf</u>	Determined by	<u>Circ.</u>
Hole size	_____		
<u>Long string Casing</u>			
Size	<u>7"</u>	Cemented with	<u>800</u> sxs.
TOC	<u>Surf</u>	Determined by	<u>Circ.</u>
Hole size	_____		
Total depth	<u>4371'</u>		
<u>Injection interval</u>	<u>4000</u> feet to	<u>4350</u> feet	
<u>Completion type</u>	<u>Perforations</u>		

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a
Giberson Uni VI packer at ±3950 feet
 (brand and model)

Other Data

1. Name of the injection formation San Andres
2. Name of field or Pool Hobbs (Grayburg/San Andres) Pool
3. Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? San Andres producer
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
None
5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.
Grayburg - 3700, Glorieta - 5300

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

OIL CONSERVATION DIVISION
P.O. Box 2088

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

Santa Fe, New Mexico 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-28954	Pool Code 31920	Pool Name HOBBS; GRAYBURG - SAN ANDRES
Property Code 19520	Property Name NORTH HOBBS G/SA UNIT	Well Number 332
OGRID No. 157984	Operator Name ALTURA ENERGY LTD.	Elevation 3651

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	18 S	38 E		2457	SOUTH	1598	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>LOT 1</p> <p>37.81 ACRES</p> <p>LOT 2</p> <p>37.85 ACRES</p> <p>LOT 3</p> <p>37.87 ACRES</p> <p>LOT 4</p> <p>37.91 ACRES</p>	<p>SPC NME NAD 27 Y=626538 X=853506</p> <p>WELL #332</p> <p>1598'</p> <p>2457'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mark Stephens</i> Signature</p> <p>Mark Stephens Printed Name</p> <p>Business Analyst (SG) Title</p> <p>December 3, 1999 Date</p> <hr/> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JULY 20, 1999</p> <p>Date Surveyed _____ DMCC</p> <p>Signature: <i>Ronald J. Edson</i> Professional Surveyor</p> <p>RONALD J. EDSON NEW MEXICO Professional Surveyor</p> <p>3239 7-27-99</p> <p>Certificate No. _____ EDSON 3239 EDSON 12641 MCDONALD 12185</p>
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P.O. Box 1980, Hobbs, NM 88241-1980

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Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
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Property Code 19520	Property Name NORTH HOBBS G/SA UNIT	Well Number 332
OGRID No. 157984	Operator Name ALTURA ENERGY LTD.	Elevation 3651

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	18 S	38 E		2457	SOUTH	1598	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

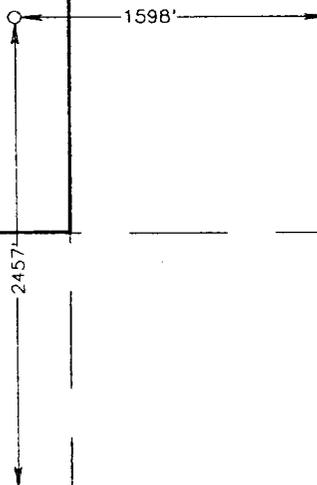
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 37.81 ACRES LOT 2										<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mark Stephens</i> Signature</p> <p>Mark Stephens Printed Name</p> <p>Business Analyst (SG) Title</p> <p>December 3, 1999 Date</p> <hr/> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JULY 20, 1999 Date Surveyed</p> <p>DMCC</p> <p><i>Ronald J. Eidsen</i> Professional Surveyor 7-27-99</p> <p>3219 11-059</p> <p>Certificate No. 3219 EIDSON 3239 EIDSON 12641 McDONALD 12185</p>
37.85 ACRES LOT 3										
37.87 ACRES LOT 4										
37.91 ACRES										

SPC NME NAD 27
Y=626538
X=853506

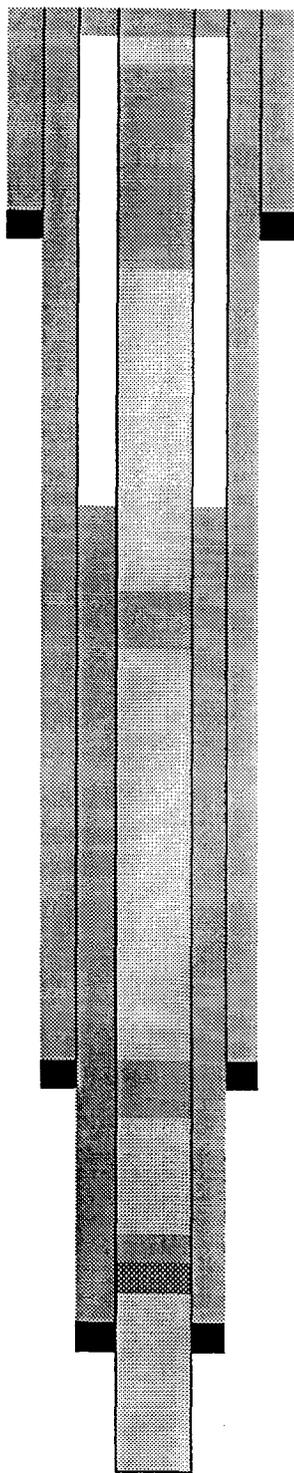
WELL #332



WELL SCHEMATIC:
ALTURA NHU 30-342

WELL PLUGGED:
4/27/99

121/2"
220'
210 SX
TOC: SURF



Spotted 10 sx cmt plug from
60' to 3'.

Spotted 36 sx cmt plug from
306' to 97'.

Circulated plugging mud.

Spotted 25 sx cmt plug from
1713' to 1564'.

9 5/8"
2750'
650' SX
TOC: SURF

Spotted 25 sx cmt plug from
2825' to 2696'.

7"
3974'
300 SX
TOC: 1144' CBL

Dumped 25 sx cmt on top of
CIBP at 3825'.

TD: 4268'

**WELL SCHEMATIC:
EXXON BOWERS #2**

WELL PLUGGED:
5/12/30

Hole cemented with 40 sxs
From 66' to surface.

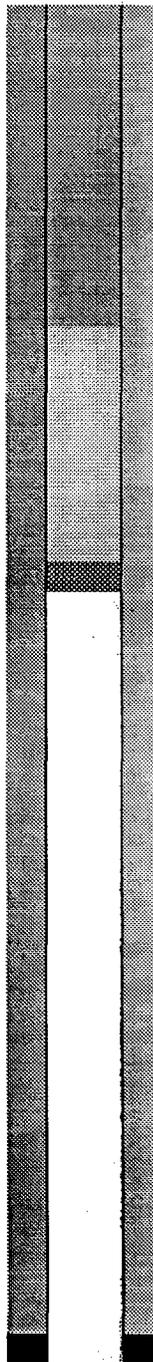
Hole mudded from 106'
To 66'.

PBTD: 106'

Plugged back at 106' with ?

12.5"
25 sxs
TOC: SURF(C)

TD: 242'



**WELL SCHEMATIC:
EXXON BOWERS A FED #6**

WELL PLUGGED:
5/10/71

12 1/2"
217'
200 SX
TOC: NA

Spotted 10 sx cmt plug from
35' to top.

Circulated well bore with 9#
Mud.

9 5/8"
2750'
650 SX
TOC: NA

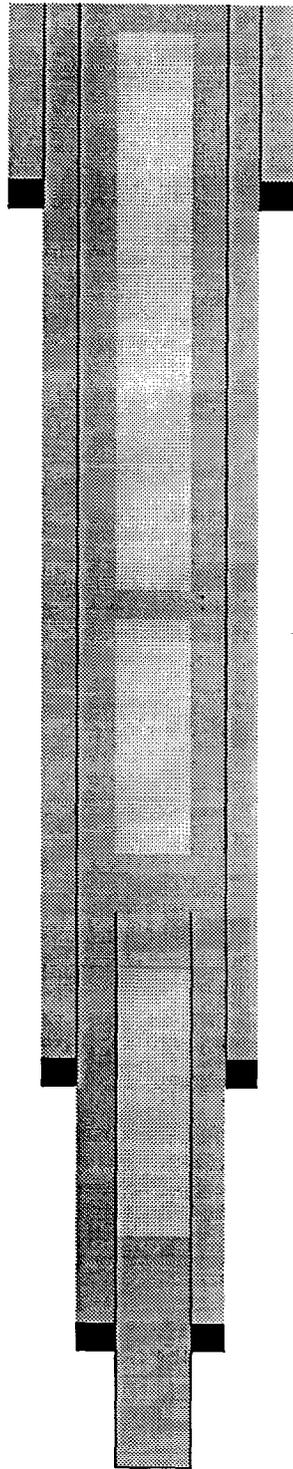
Spotted 20 sx cmt plug from
1500' to 1400'.

7" csg shot loose at 2435'.
Spotted 50 sx cmt plug from
2485' to 2340'.

7"
3147'
120 SX
TOC: 2470 TS

TD: 3190'

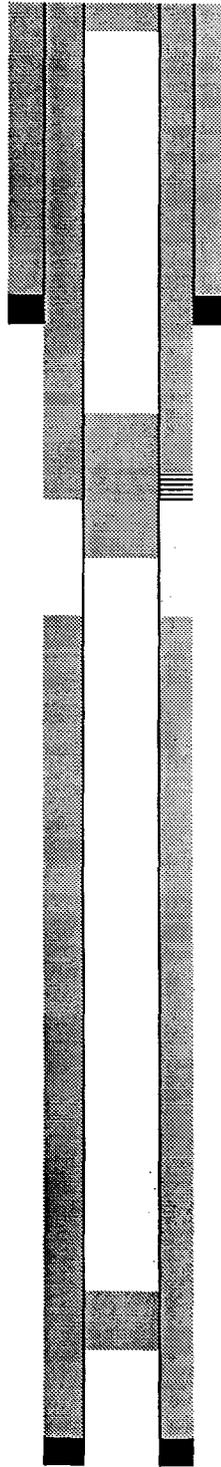
Spotted 50 sx cmt plug from
3190' to 2950'.



**WELL SCHEMATIC:
EXXON BOWERS A #12**

WELL PLUGGED
11/21/80

8 5/8"
222'
100 sxs.
TOC:N.A.



8 5/8 and 5 5/2 csg cut off
7' below GL.. 1/2" plate
welded on top.
10' cmt plug at surface.

Cmt. Ret. set at 350'

Sqzd. Perfs at 390' with 100
sxs. cmt from 500' to 350'.
Circ. to surface.

5 5/8"
3132'
575 sxs.
TOC: 880' TS

PBTD: 3088'

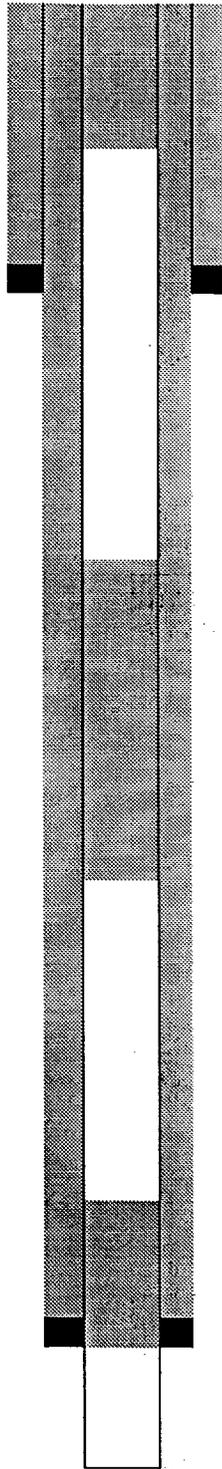
10 sxs. Cmt plug 3088-2988

**WELL SCHEMATIC: EXXON
BOWERS A FED. #13**

WELL PLUGGED:
5/10/71

8 5/8"
283'
125 sxs
TOC: SURF (C)

10 sxs cmt plug set from
50' to surf



20 sxs cmt plug set from
1500' to 1400'

5 1/2"
3150'
1350 sxs
TOC: SURF (C)

50 sxs cmt plug set from
3189' to 2800'

TD: 3189'

**WELL SCHEMATIC:
EXXON BOWERS A FED #16**

WELL PLUGGED:
11/27/70

Spotted a 10 sxs cmt plug at
surface with marker.

8 5/8 "
262'
150 SXS
TOC: CIRC

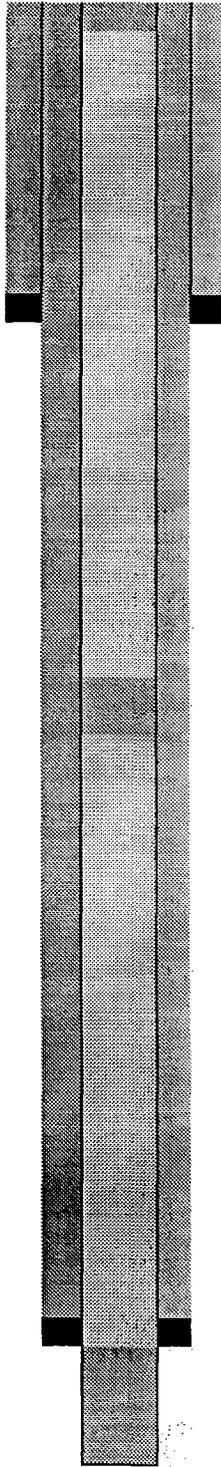
Hole loaded with mud laden
fluids.

5 1/2 "
3151'
1000 SXS
TOC: CIRC

Spotted a 20 sxs cmt plug
from 1400' to 1550'

TD: 3225'

Spotted a 30 sxs cmt plug from
3050' to 3225'



**WELL SCHEMATIC:
EXXON BOWERS A FED #1**

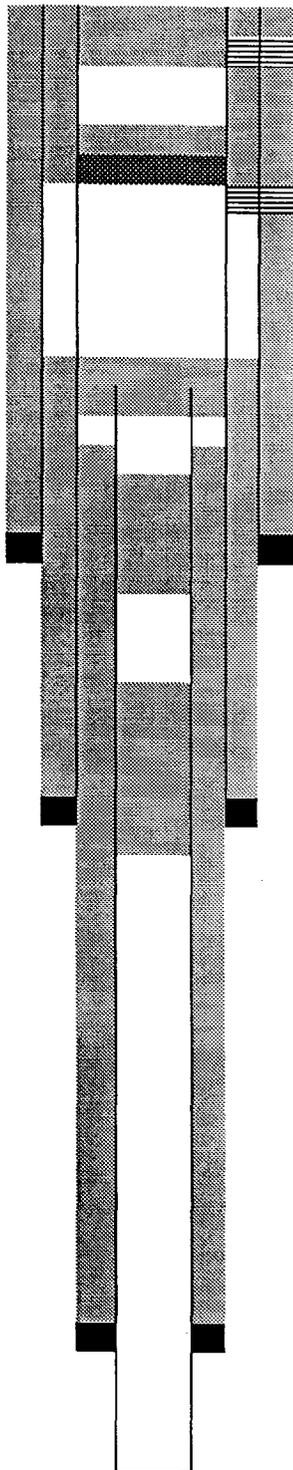
WELL PLUGGED:
11/15/89

9 5/8"
2750'
620 SX
TOC: NA

7"
3962'
528 SX
TOC: NA

4 1/2"
6000'
275 SX
TOC: 2200 TS

TD: 6000'



Perf'd 7" & 9 5/8" csg at 280'
& sqzd w/100 sx.

Dropped 54' cmt on top of ret

Perf'd 7" and 9 5/8" csg at
1350'. Set cmt ret at 1304'.
Sqz'd w/100 sx thru perfs.

Spotted 25 sx cmt plug from
1911' to 2058'.
Cut 4 1/2" csg at 2000' and
Pull out of hole.
Spotted 20 sx cmt plug from
2470' to 2800'.

Spotted 40 sx cmt plug from
3430' to 4100'.

**WELL SCHEMATIC:
EXXON BOWERS A FED #15**

WELL PLUGGED:
11/27/70

8 5/8"
249'
150 SX
TOC: CIRC

Spotted 10 sx cmt plug at
Surface.

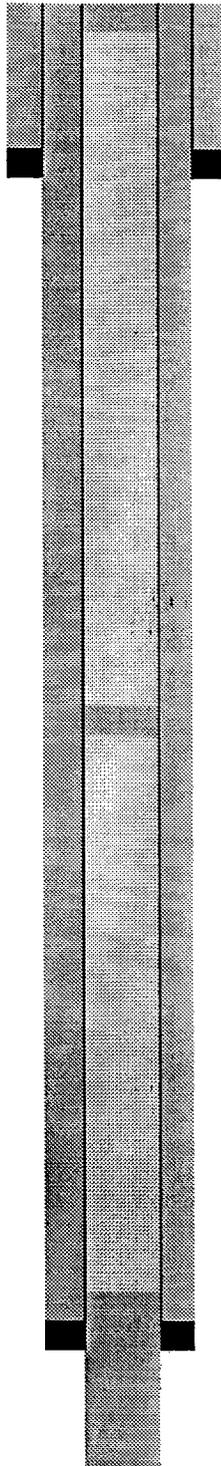
Hole was loaded with mud
Laden fluid.

5 1/2"
3158'
1250 SX
TOC: CIRC

Spotted 20 sx cmt plug from
1400' to 1500'.

TD: 3218'

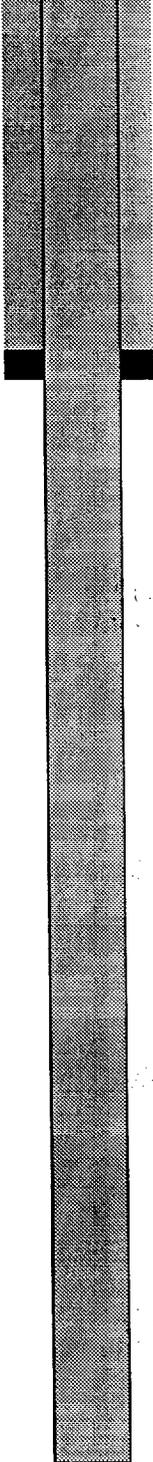
Spotted 25 sx cmt plug at
3218'.



**WELL SCHEMATIC:
EXXON BOWERS A FED #17**

WELL PLUGGED:
11/30/66

7"
12'
6 SX
TOC: CIRC



12' of 7" csg left in hole.

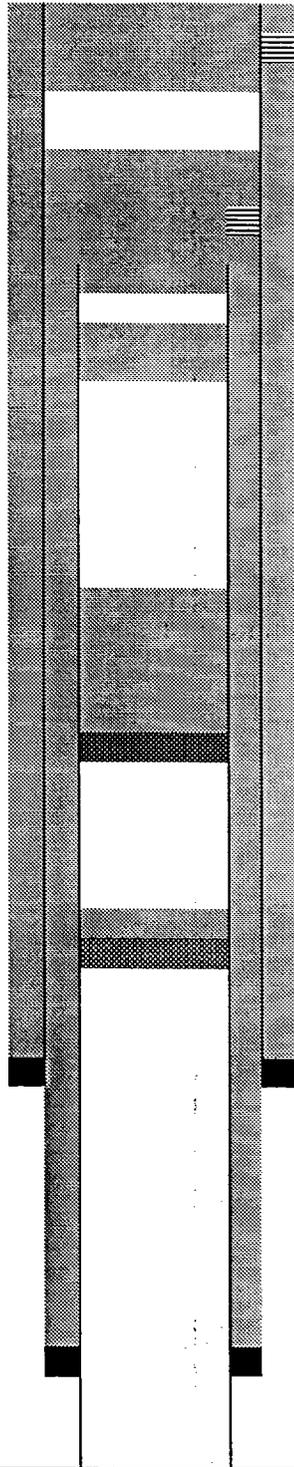
Filled hole with approximately
.75 yards of 5 sx Redi-Mix.

TD: 50'

**WELL SCHEMATIC:
EXXON BOWERS A FED #30**

WELL PLUGGED:
8/4/90

8 5/8"
3836'
500 SX
TOC: 2300' TS



Perf'd 8 5/8" at 450'. Pumped
211 sx down 8 5/8" thru perfs
At 450' and circulate.

Perf'd 8 5/8" csg at 1485'.
Cut off 4 1/2" csg at 1500'.
Spotted 77 sx cmt plug from
1500' to 1385'.

Spotted 15 sx cmt plug from
2711' to 2528'.

Spotted 70 sx cmt plug from
4632' to 3364'.

Cmt. ret. at 4632' – sqz with
25 sx.

CIBP at 5300' w/ 35' cmt cap.

4 1/2"
5988'
550 SX
TOC: 2800' TS

TD: 6000'

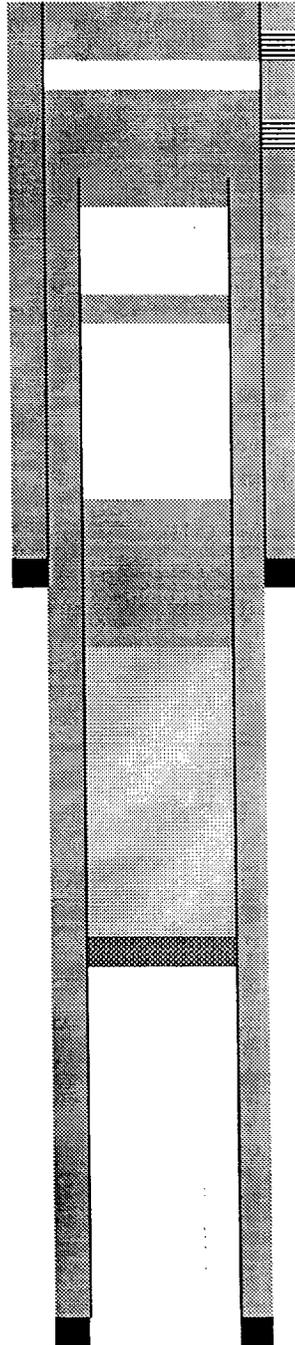
**WELL SCHEMATIC:
EXXON BOWERS A FED #31**

WELL PLUGGED:
8/30/90

8 5/8"
3836'
500 SX
TOC:1858' CALC

5 1/2"
7038'
650 SX
TOC:3125' CALC

TD: 7050'



Perf'd @ 450'. Pump 211 sx
Down 8 5/8" csg to surf.
Spot 77 sx from 1490-1200'
Perf'd at 1485'.
Cut off 5 1/2" csg at 1500'.

Spotted 25 sx cmt plug at
2716'.

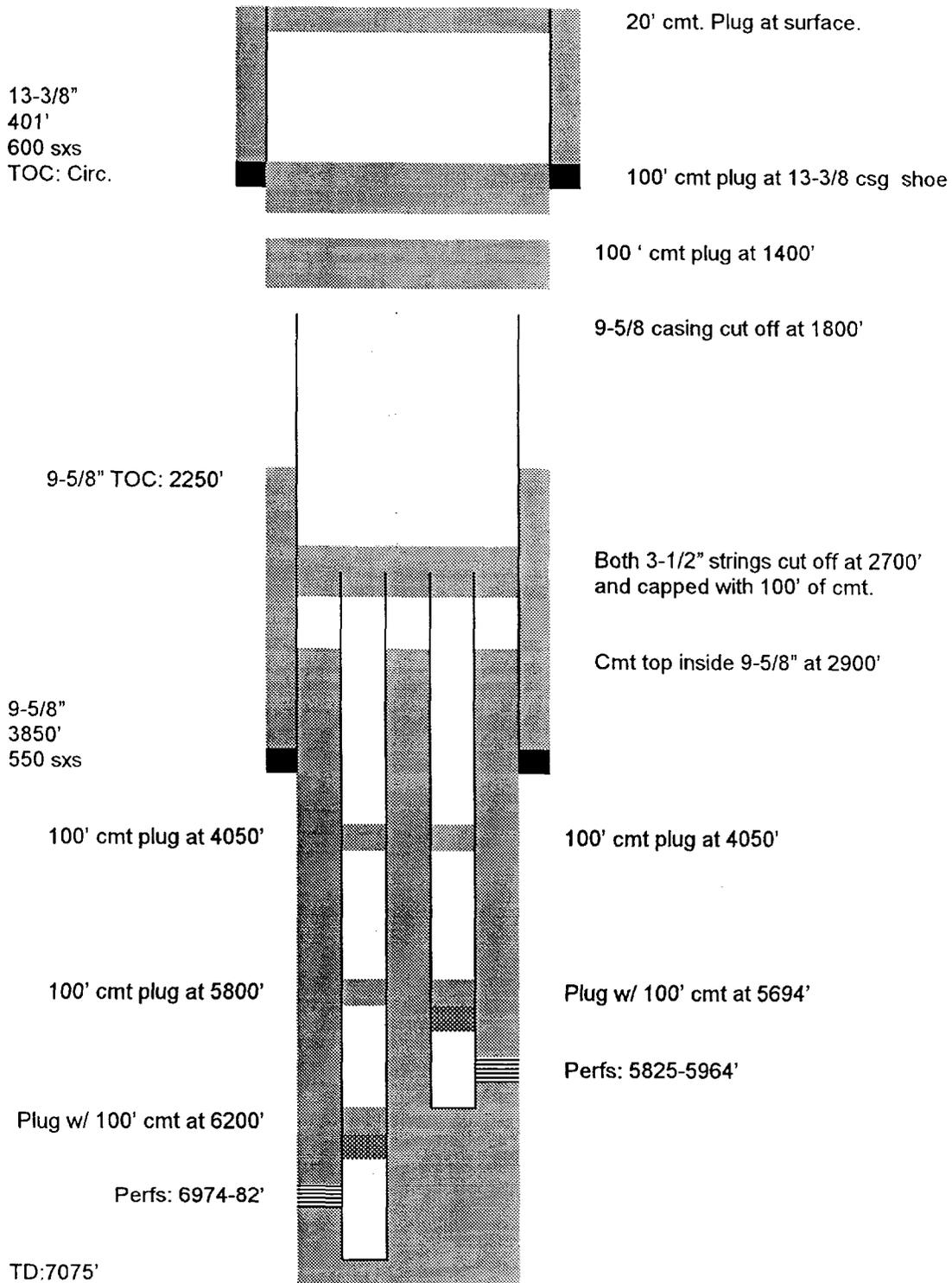
Spot 50 sx cmt from 4100' to
3600'.

Displaced hole with salt gel
Mud.

Tagged CIBP w/35' cmt cap
At 5710'.

WELL SCHEMATIC - Exxon Bowers A Federal #32

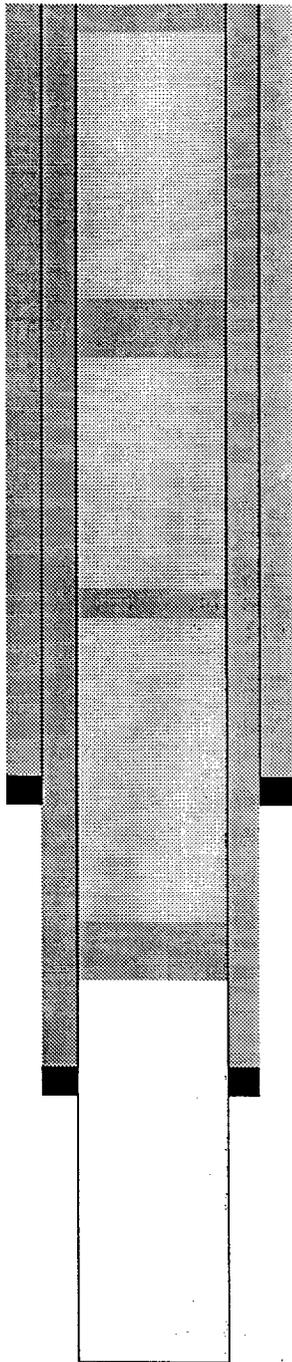
Well plugged 9/14/72



**WELL SCHEMATIC:
EXXON BOWERS A FED #9**

WELL PLUGGED:
12/3/70

9 5/8"
2736'
650 SX
TOC: SURF (C)



Spotted 10 sx cmt plug from
0' to 25'.

Hole was loaded with mud
Laden fluids.

Spotted 20 sx cmt plug from
1400' to 1550'.

Spotted 40 sx cmt plug from
2300' to 2400'.

7"
3970'
300 SX
TOC: 2000(C)

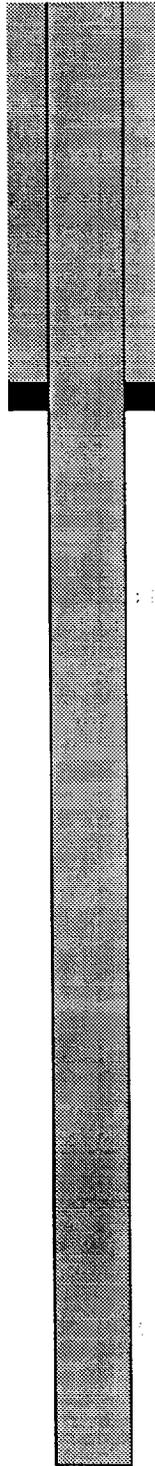
Spotted 50 sx cmt plug from
3000' to 3250'.

TD: 4259'

**WELL SCHEMATIC:
EXXON BOWERS A FED #10**

WELL PLUGGED:
8/19/98

7"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 cu.
Yds. of 5 sx Redi-Mix.

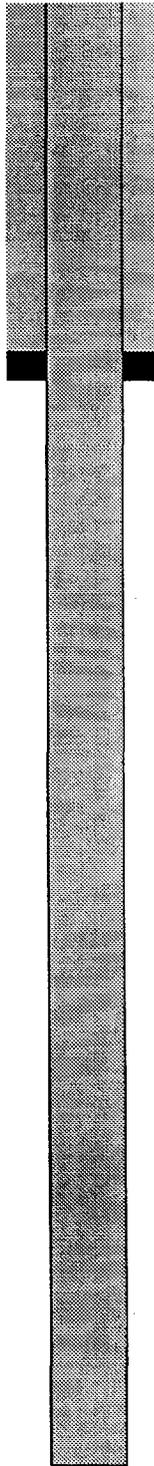
10' to 38' – open hole.

TD: 38'

**WELL SCHEMATIC:
EXXON BOWERS A FED #11**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

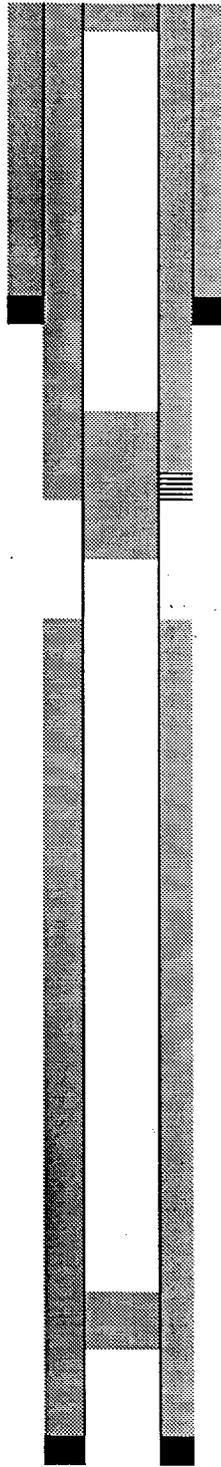
10' to 38' – open hole.

TD: 38'

**WELL SCHEMATIC:
EXXON BOWERS A #12**

WELL PLUGGED
11/21/80

8 5/8"
222'
100 sxs.
TOC:N.A.



8 5/8 and 5 5/8 csg cut off
7' below GL.. 1/2 " plate
welded on top.
10' cmt plug at surface.

Cmt. Ret. set at 350'

Sqzd. Perfs at 390' with 100
sxs. cmt from 500' to 350'.
Circ. to surface.

5 5/8"
3132'
575 sxs.
TOC: 880' TS

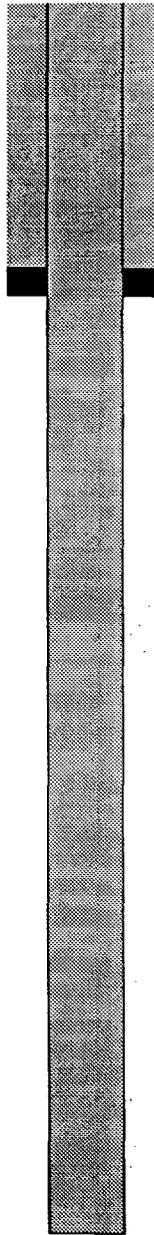
PBTD: 3088'

10 sxs. Cmt plug 3088-2988

**WELL SCHEMATIC:
ARC IND BOWERS A FED #2**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

10' to 38' – open hole.

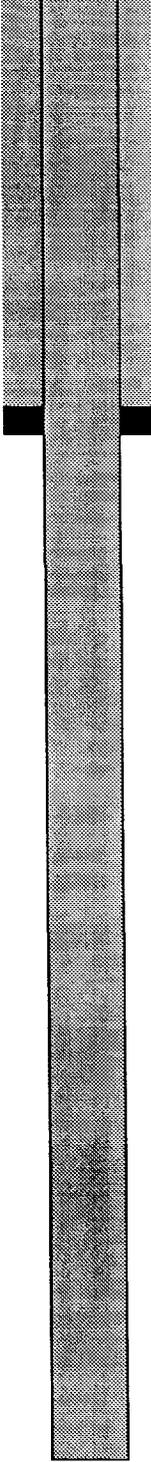
TD: 38'

**WELL SCHEMATIC:
ARC IND BOWERS A FED #3**

WELL PLUGGED:
8/19/98

7"
10'
3 SX
TOC: NA

Csg was pulled out of hole.
Well bore was filled with
Approximately .75 yards of
5 sx Redi-Mix.



TD: 38'

.....

**WELL SCHEMATIC:
EXXON BOWERS B FED #1**

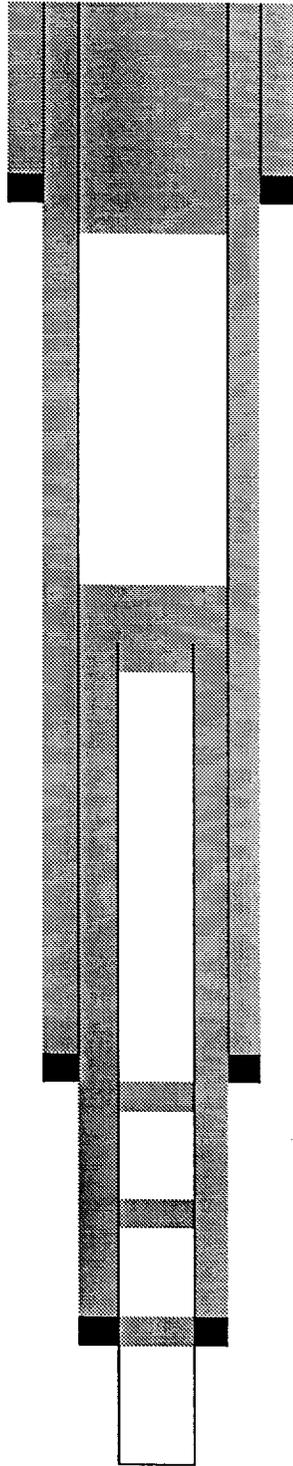
WELL PLUGGED:
12/21/71

15 1/2"
235'
225 SX
TOC: NA

9 5/8"
2716'
650 SX
TOC: SURF (C)

7"
3987'
300 SX
TOC: 2027 (C)

TD: 4239



Set 120 sx cmt plug at 250'
And circulate.

Cut off 7" csg. at 1500' and
Pull out of hole. Pump 60 sx
Cmt plug at 1500'.

Set plug at 2800'.

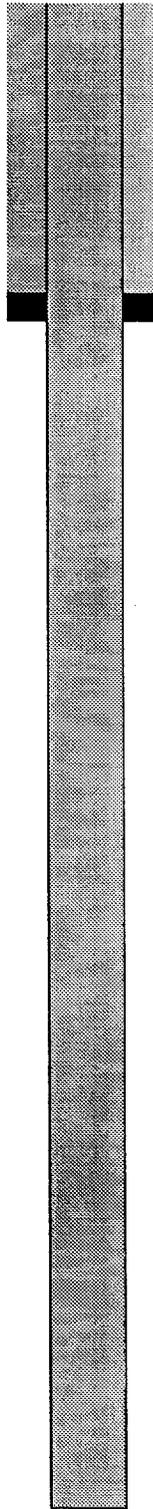
Spotted 25 sx cmt plug at
3355'.

Spotted 28 sx cmt plug at
3970'.

**WELL SCHEMATIC:
ARC IND. BOWERS A FED #13**

WELL PLUGGED:
8/19/98

5 1/2"
10'
3 SX
TOC: NA



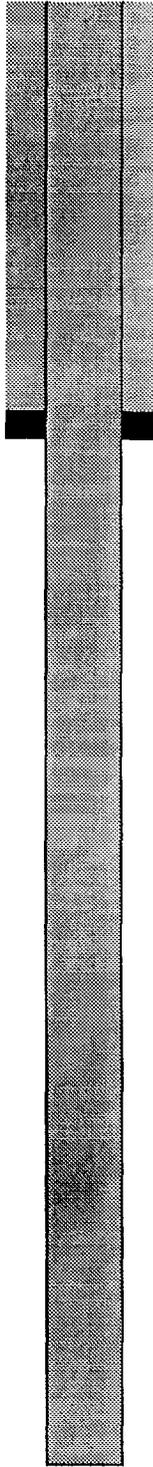
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 45'

**WELL SCHEMATIC:
EXXON BOWERS A FED #4**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



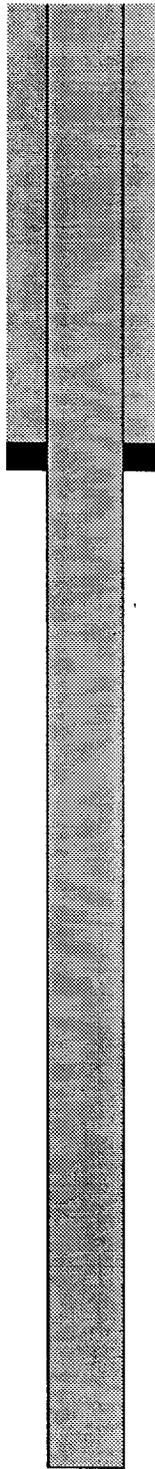
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 38'

**WELL SCHEMATIC:
EXXON BOWERS A FED #5**

WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA



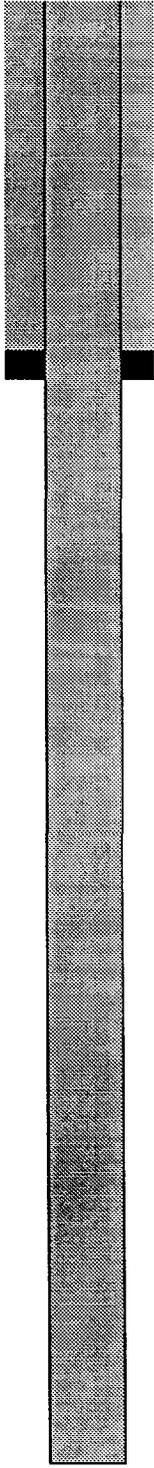
Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

TD: 38'

**WELL SCHEMATIC:
ARC IND BOWERS A FED #6**

WELL PLUGGED:
8/19/98

6 3/4"
10'
3 SX
TOC: NA



Csg was pulled and well was
Filled with approximately
.75 yards of 5 sx Redi-Mix.

TD: 45'

**WELL SCHEMATIC:
GETTY HD MCKINLEY #3**

WELL PLUGGED:
8/26/75

Laid 10 sx cmt plug in top.

9 5/8"
2755'
600 SX
TOP: 337' CALC

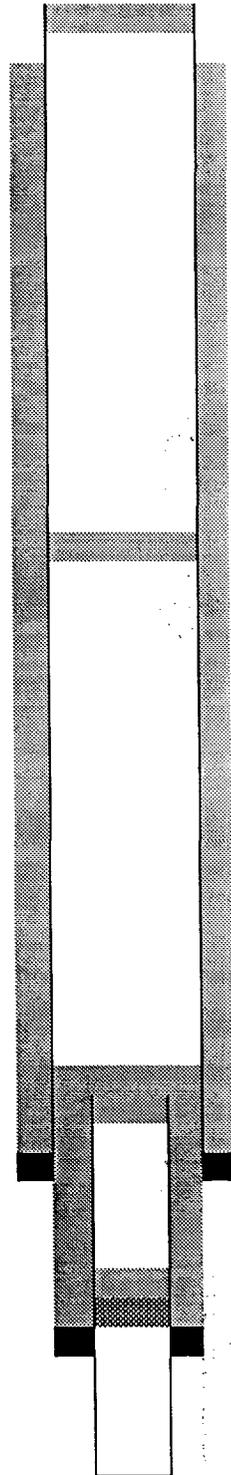
Laid 37 sx cmt plug from
1575' to 1475'.

Ran 2 3/8" tbg to 3000'.
Circulated hole with 123 bbls.
Brine water w/23 sx salt gel.
Pulled tbg.
Shot csg at 2547'. Pulled and
Laid down 84 joints(2555') 7"
Csg. Ran tbg to 2616' and
Laid 28sx cmt plug from
2616' to 2516'.

7"
3166'
100 SX
TOC: 2595' CALC

Set Titan CIBP at 3095'.
Dumped 7 sx cmt on top of
CIBP.

TD: 3199'

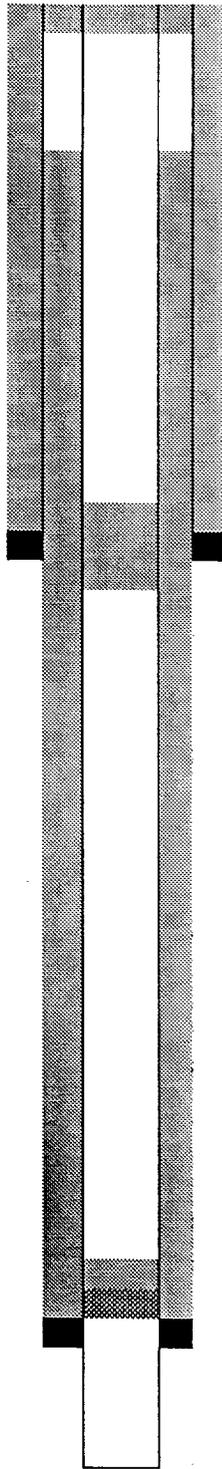


**WELL SCHEMATIC:
GETTY HD MCKINLEY #6**

WELL PLUGGED:
8/26/75

8 5/8"
1474'
400 SX
TOC: CIRC

Laid 10 sx cmt plug in top.



Laid 20 sx cmt plug from
1542' to 1374'.

5 1/2"
3178'
200 SX
TOC: 498 (C)

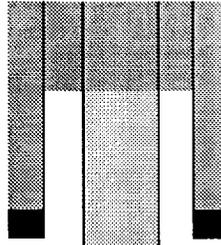
TD:3200'

Set CIBP at 3100'. Dumped
5 sx cmt on top of CIBP.

**WELL SCHEMATIC:
AMERADA H.D. MCKINLEY #5**

WELL PLUGGED:
5/19/93

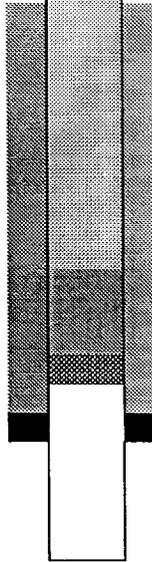
7 5/8"
432'
200 SX
TOC: CIRC



Spotted 25 sx cmt plug from
250' to surface.

Displaced hole with 75 bbls
Of 9 1/2 # mud.

5 1/2"
3130'
600 SX
TOC: 2992'



Spotted 25 sx cmt plug from
1850' to 1600'.

TD: 3230'

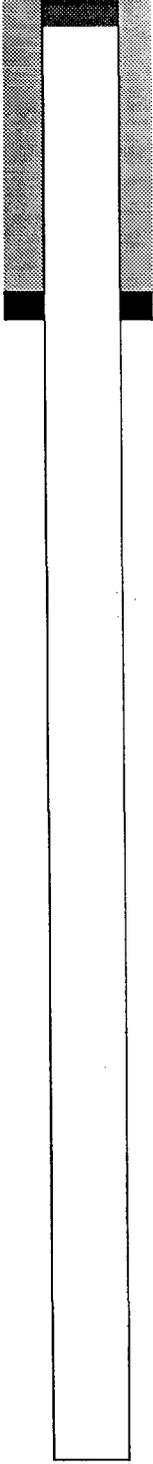
Spotted 25 sx cmt plug from
3050' to 2800'.

Set CIBP at 3050'.

**WELL SCHEMATIC:
AMERADA MCKINLEY #10**

WELL PLUGGED:
8/14/82

5 ½"
10'
1 yd. Redi-Mix



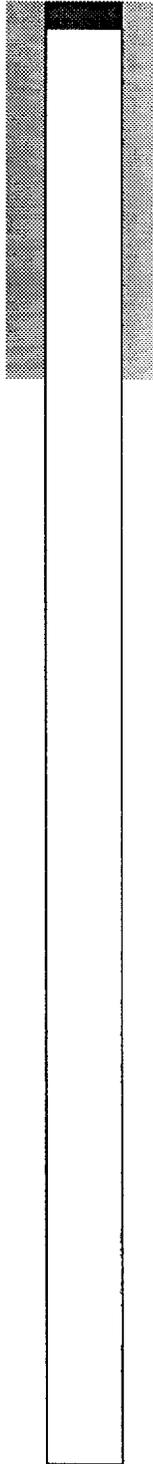
The pump was pulled from
The well and steel plates
Were welded on top of the
Well.

TD: 37'

**WELL SCHEMATIC:
AMERADA MCKINLEY #9**

WELL PLUGGED:
8/14/82

5 1/2"
10'
1 YD REDI-MIX
TOC: NA



The pump was pulled from
Well and steel plates were
Welded on top of well.

TD: 37'



P.O. BOX 2187
HOBBS, NEW MEXICO 88240

Saturation Index Calculations
Champion Technologies, Inc.
(Based on the Tomson-Oddo Model)

Telephone (505) 393-7726

Site Information

Company	Altura
Field	North Hobbs Unit
Point	IPD
Date	4/15/98

Water Analysis (mg/L)

Calcium	1,122
Magnesium	194
Barium	0
Strontium	0
Sodium*	3730
Bicarbonate Alkalinity	1,769
Sulfate	1,726
Chloride	6,000

* - Calculated Value

Appended Data

Dissolved CO2	228 mg/l.
Dissolved O2	N/A PPB
H2S	596 mg/l.
Iron	0.0 mg/l.
Specific Gravity	1.010 value
TDS	14551 mg/l.
Total Hardness	3600 mg/l.
Well head pH	N/A value

Physical Properties

Ionic Strength*	0.29
pH†	6.52
Temperature	86°F
Pressure	100 psia

* - Calculated Value † - Known/Specified Value

Calcite Calculation Information

<i>Calculation Method</i>	<i>Value</i>
pH	6.52
<hr/>	
<i>Bicarbonate Alkalinity Correction(s)</i>	<i>Value</i>
None Used	---

SI & PTB Results

<i>Scale Type</i>	<i>SI</i>	<i>PTB</i>
Calcite (Calcium Carbonate)	0.48	310.4
Gypsum (Calcium Sulfate)	-0.45	N/A
Hemihydrate (Calcium Sulfate)	-0.32	N/A
Anhydrite (Calcium Sulfate)	-0.72	N/A
Barite (Barium Sulfate)	N/A	N/A
Celestite (Strontium Sulfate)	N/A	N/A

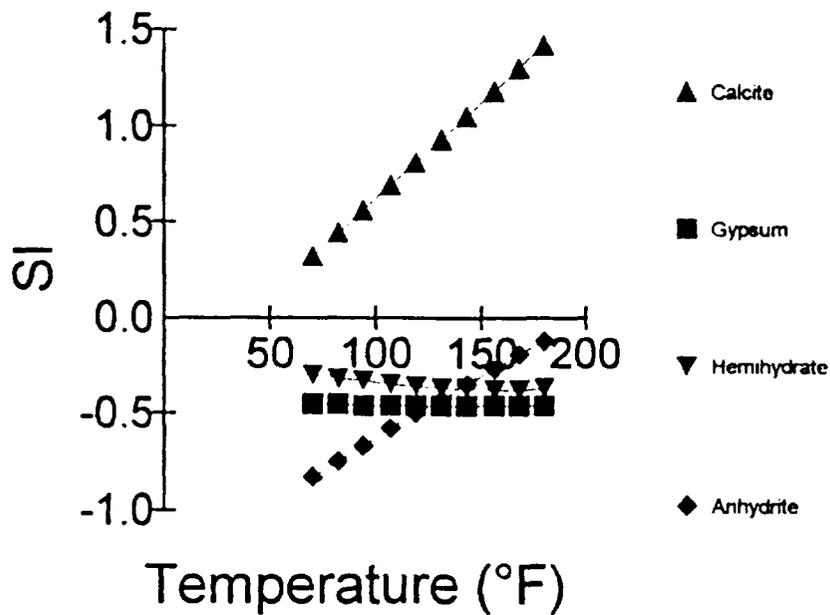
Site Information

Company	Altura
Field	North Hobbs Unit
Point	IPD
Date	4/15/98

SI Results

Temperature (°F)	Calcite	Gypsum	Hemihydrate	Anhydrite
70	0.32	-0.45	-0.30	-0.83
82	0.44	-0.45	-0.32	-0.75
94	0.56	-0.46	-0.33	-0.67
107	0.69	-0.46	-0.35	-0.58
119	0.81	-0.46	-0.36	-0.50
131	0.93	-0.46	-0.37	-0.43
143	1.05	-0.46	-0.37	-0.35
156	1.18	-0.46	-0.38	-0.27
168	1.30	-0.46	-0.38	-0.19
180	1.42	-0.46	-0.37	-0.12

SI





Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,
SAMPLE North Hobbs Un. CTB 18S-38E-SEC29
SAMPLED BY David Nelson SW¹/₄, NW¹/₄, NW²/₄, NW³/₄
DATE TAKEN 10/12/99
REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	12	
Bicarbonate alkalinity PPM	212	
pH at Lab	7.48	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	200	
Total Hardness as CaCO3	344	
Chlorides as Cl	155	
Sulfate as SO4	145	
Iron as Fe	0.1	
Potassium	0.08	
Hydrogen Sulfide	0	
Rw	7	24 C
Total Dissolved Solids	1,045	
Calcium as Ca	144	
Nitrate	14	

Results reported as Parts per Million unless stated

Langelier Saturation Index + 0.03

Analysis by: Rolland Perry
Date: 10/19/99



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,

SAMPLE 18S-38E-Sec 30 NW1/4, NE1/4, SW1/4, SE1/4, SW1/4

SAMPLED BY David Nelson

DATE TAKEN 10/12/99

REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	212	
pH at Lab	7.46	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	172	
Total Hardness as CaCO3	296	
Chlorides as Cl	85	
Sulfate as SO4	135	
Iron as Fe	0.01	
Potassium	0.1	
Hydrogen Sulfide	0	
Rw	7	23 C
Total Dissolved Solids	922	
Calcium as Ca	124	
Nitrate	7.9	

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.04

Analysis by: Rolland Perry
Date: 10/19/99



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,

SAMPLE 18S-38E-Sec30 NE1/4, SW1/4, SW1/4

SAMPLED BY David Nelson

DATE TAKEN 10/12/99

REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	204	
pH at Lab	7.52	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	125	
Total Hardness as CaCO3	216	
Chlorides as Cl	64	
Sulfate as SO4	55	
Iron as Fe	0.01	
Potassium	0.1	
Hydrogen Sulfide	0	
Rw	9	23 C
Total Dissolved Solids	595	
Calcium as Ca	91	
Nitrate	1.2	

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.18

Analysis by: Rolland Perry
Date: 10/19/99



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,

SAMPLE 18S-38E-Sec.30 SW1/4, NE1/4, NE1/4, SW1/4, NE1/4

SAMPLED BY David Nelson

DATE TAKEN 10/12/99

REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	248	
pH at Lab	7.15	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	174	
Total Hardness as CaCO3	300	
Chlorides as Cl	71	
Sulfate as SO4	110	
Iron as Fe	0.22	
Potassium	0.1	
Hydrogen Sulfide	0	
Rw	7.5	23 C
Total Dissolved Solids	820	
Calcium as Ca	126	
Nitrate	2.2	

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.35

Analysis by: Rolland Perry
Date: 10/19/99

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LIST OF OFFSET OPERATORS & SURFACE OWNERS

North Hobbs (Grayburg/San Andres) Unit
Well No. 332
Letter J, Section 30, T-18-S, R-38-E
Lea County, New Mexico

Offset Operators

Altura Energy LTD
P.O. Box 4294
Houston, TX 77210-4294

Exxon Company, U.S.A.
Attn: Joint Interest Operations
P.O. Box 4707
Houston, TX 77210-4707

Getty Oil Company
P.O. Box 797035
Dallas, TX 75379-7035

Charles E. Seed
Houston Ranch
Lovington Hwy.
Hobbs, NM 88240

Saga Petroleum LLC
415 W. Wall, Suite 835
Midland, TX 79701

Surface Owners

Grimes Land Co.
P.O. Box 5102
Hobbs, NM 88241

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Getty Oil Company
P.O. Box 797035
Dallas, TX 75379-7035

4a. Article Number

P 447 842 751

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Charles E. Seed
Houston Ranch
Lovington Hwy.
Hobbs, NM 88240

4a. Article Number

P 447 842 752

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

102595-97-B-0179

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I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Exxon Company, U.S.A.
Attn: Joint Interest
Operations
P.O. Box 4707
Houston, TX 77210-4707

4a. Article Number

P 447 842 833

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

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SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Saga Petroleum LLC 415 W. Wall, Suite 835 Midland, TX 79701	4a. Article Number P 447 842 753	7. Date of Delivery
5. Received By: (Print Name)	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
6. Signature: (Addressee or Agent) X	8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Grimes Land Company P.O. Box 5102 Hobbs, NM 88241	4a. Article Number P 447 842 750	7. Date of Delivery
5. Received By: (Print Name)	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
6. Signature: (Addressee or Agent) X	8. Addressee's Address (Only if requested and fee is paid)	

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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 2 weeks.

Beginning with the issue dated

September 11 1999

and ending with the issue dated

September 12 1999

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 22nd day of

October 1999

Joel Henderson

Notary Public.

My Commission expires

October 18, 2000

(Seal)

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

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Altura Energy LTD
P. O. Box 4294
Houston, TX 77210-4294

LEGAL NOTICE

SEPTEMBER 12, 1999

Notice is hereby given of the application of Altura Energy LTD, Attn: Mark Stephens, P.O. Box 4294, Rm. 338-B, Houston, TX 77210-4294 (281/552-1158), to the Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department, for approval of the following injection wells for the purpose of secondary recovery:

- Pool Name: Hobbs; Grayburg -San Adres
- Lease/Unit Name: North Hobbs G/SA Unit
- Well No. 221
- Loc.: 2310' FNL & 2310' FWL, Unit Letter F, Sec. 24, T-18-S, R-37-E, Lea Co., NM
- Well No. 342
- Loc.: 145' FSL & 1435' FEL, Unit Letter O, Sec. 24, T-18-S, R-37-E, Lea Co., NM
- Well No. 432
- Loc.: 2480' FSL & 1280' FEL, Unit Letter I, Sec. 24, T-18-S, R-37-E, Lea Co., NM
- Well No. 141
- Loc.: 330' FSL & 330' FWL, Unit Letter M, Sec. 29, T-18-S, R-38-E, Lea Co., NM
- Well No. 241
- Loc.: 330' FSL & 2310' FWL, Unit Letter N, Sec. 29, T-18-S, R-38-E, Lea Co., NM
- Well No. 112
- Loc.: 200' FNL & 1310' FWL, Unit Letter D, Sec. 30, T-18-S, R-38-E, Lea Co., NM
- Well No. 233
- Loc.: 2455' FSL & 1480' FWL, Unit Letter K, Sec. 30, T-18-S, R-38-E, LEA Co., NM
- Well No. 313
- Loc.: 405' FNL & 2272' FEL, Unit Letter B, Sec. 30, T-18-S, R-38-E, Lea Co., NM
- Well No. 332
- Loc.: 2470' FSL & 1600' FEL, Unit Letter J, Sec. 30, T-18-S, R-38-E, Lea Co., NM
- Well No. 412
- Loc.: 760' FNL & 550' FEL, Unit Letter A, Sec. 30, T-18-S, R-38-E, Lea Co., NM
- Well No. 432
- Loc.: 2260' FSL & 180' FEL, Unit Letter I, Sec. 30, T-18-S, R-38-E, Lea Co., NM

The injection formation is the Hobbs; Grayburg-San Adres Pool between the intervals of +/-3700' and +/-5300' below the surface of the ground. Expected maximum infection rate is 4000 BWPD and the expected maximum injection pressure is approximately 805 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040, S. Pacheco, Santa Fe, NM 87505 within fifteen (15) days. #16873

Active wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	Oper	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or P8TD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
29121	Altura	30-025-07449	29	-18S	-38E	E	3/47	Prod	4275	3924	4275	4070-85	9.625	12.25	2739	650	890
												4110-20	7	8.75	3104	100	2640 CBL
												4130-50	4.5 Lnr	6.25	2900-4201	100	2900
29122	Altura	30-025-28953	29	-18S	-38E	E	02/06/1985	Inj	4215 (CIBP)	4154	4211		13.375		40		Circ
													8.625		1510	785	Circ
													5.5		4370	435	Circ
29131	Altura	30-025-07447	29	-18S	-38E	L	10/30	Prod	4130 (CIBP)	4050	4210		9.625	12	2750	650	660
													7	8.75	3976	300	
													5 Lnr	6.125	3870-4220	50	3930
30221	Altura	30-025-07462	30	-18S	-38E	F	4/30	Prod	4279	4072	4208-79	4023-25	9.625	11.75	2750	535	787
											OH	4081-4104	7	8.25	3852	250	1500 CBL
												4120-28	4.5 Lnr	6.25	3799-4207	125	3799
30222	Altura	30-025-26833	30	-18S	-38E	F	10/80	Inj	4290	4123	4302	3718	16	20	40	40	Surf
												4322-29	8.625	12.25	1570	950	Surf
													5.5	7.875	4349	800	2608 CBL
30223	Altura	30-025-28555	30	-18S	-38E	F	7/84	Prod	4321	4139	4280		16		30		
													8.625		1455	650	Circ
													5.5		4394	250	2496 CBL
30231	Altura	30-025-07479	30	-18S	-38E	K	7/30	Prod	4015	4119	4200-56		9.625	12.25	2750	400	1589
											OH		7	8.75	3930	550	604
													5	6.25	4200	60	3193 CBL
30232	Altura	30-025-26935	30	-18S	-38E	K	12/80	Inj	4519	4138	4310	4170-78	16		40	40	Circ
												4186-94	8.625		1600	875	Circ
													5.5		4555	1155	2614 CBL
30233	Altura	30-025-28942	30	-18S	-38E	K	2/85	Prod	4210	4148	4240		13.375		55		
													8.625		1507	620	Circ
													5.5		4383	1070	Circ

Note: Calculated TOC's are estimated with 50% efficiency

Active wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	Oper	API No.	Sec	T	R	Un Ltr	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
30241	Altura	30-025-07480	30	-18S	-38E	N	9/30	Prod	3900	3946	4101	4118-38 4158	9.625	12.25	2750	550	1154
													7	8.75	3900	275	2237
													5	6.25	4167	60	3368 CBL
30311	Altura	30-025-07469	30	-18S	-38E	B	8/30	Prod	3950	3998-4121 (OH)			12.5	16	245	200	Circ
													9.625	11.75	2753	600	551
													7	8.75	3998	250	3154 CBL
30312	Altura	30-025-29197	30	-18S	-38E	B	5/85	Prod	4380	4215	4333		13.375		40	650	CIRC
													9.625		1500	700	CIRC
													7		4431		
30313	Altura	30-025-23270	30	-18S	-38E	B	11/69	Prod	4065	5871	5951	5805-53	13.375		382	400	SURF/CIRC
													8.625		3849	1256	600
													5.5		6047	570	1500
30321	Altura	30-025-07467	30	-18S	-38E	G	7/30	Prod	4257	4130	4196	4030-60	9.625	11.75	2755	600	553
													7	8.75	3854	250	2342
													5	7	4200	405	Circ/CBL
30331	Altura	30-025-07472	30	-18S	-38E	J	9/30	Prod	4225	4014	4225	4068-72 4074-92	9.625	12	2750	650	1000
													7	8.75	3960	300	Circ
													5.5	6.125	4238	30	3650 CBL
30333	Altura	30-025-28955	30	-18S	-38E	J	2/85	Imj	4328	4137	4290		13.375		40		
													8.625		1579	425	Surf
													5.5		4370	500	Circ
30341	Altura	30-025-24665	30	-18S	-38E	O	3/74	Prod	4202	4042	4276	4104-26	9.625	12.25	1463	500	Circ
													5.5	7.875	3956	625	1910 CBL
													3.5 Lnr	4.75	3715-4350	125	3715
													4056-69				
30412	Altura	30-025-23384	30	-18S	-38E	A	1/70	Prod	4300	4009	4261	4142-4225	13.375	17.5	329	400	Circ
													9.625	12.25	3848	1200	75
													7	8.75	7106	865	Circ

Note: Calculated TOC's are estimated with 50% efficiency

Active wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	Oper	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
30421	Altura	30-025-07468	30	-18S	-38E	H	7/30	Prod	4258	4114	4202-58		9.625	11.75	2756	600	554
											OH		7	8.75	3858	250	Circ
													5	6.25	4202	450	Surf/CBL
30422	Altura	30-025-27059	30	-18S	-38E	H	5/81	Inj	4477	4110	4265	4108-23	16	20	40	40	Surf
													8.625	12.25	1524	850	Circ
													5.5	7.875	4510	1000	2500 CBL
30431	Altura	30-025-07474	30	-18S	-38E	I	9/30	Prod	4213	4085	4229	3975-4103	9.625	12	2750	650	
													7	8.75	3975	300	2009 Calc.
													5.5	6.125	3917	600	CBL/Circ
30432	Altura	30-025-28957	30	-18S	-38E	I	2/85	Prod	4328	4110	4266		13.375		55	370	CIRC
													8.625		1490	350	CIRC
													5.5		4370	350	CIRC
30441	Altura	30-025-07473	30	-18S	-38E	P	8/30	Prod	4267	4094	4200		9.625	12	2750	650	365
													7	8.75	3970	300	2624 CBL
													5.5 Lnr		3847-4267	50	Circ.
30442	Altura	30-025-27001	30	-18S	-38E	P	5/81	Inj	4420	4162	4257	4110-16	16		40	40	Circ
												4128-34	8.625	12.25	1606	850	Circ
													5.5	7.875	4510	1075	Circ
30443	Altura	30-025-28958	30	-18S	-38E	P	1/85	Inj	4185	4094	4247		8.625		1470	425	440
													5.5		4370	340	858
30444	Altura	30-025-28959	30	-18S	-38E	P	7/85	Prod	4145	4106	4270		13.375		40	500	Circ
													9.625		1519	500	Circ
													7		4369	1035	3900

Handwritten circled "7/85" with an arrow pointing to the "Drill Date" column for well 30444.

Handwritten notes: "CIRC. PER WELLSITE. SEE # WJ-443 30-025-28958 32-18S-38E"

Note: Calculated TOC's are estimated with 50% efficiency

Active Outside Operated wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or P8TD	Top Perf	Bot. Perf	Sqz. Perts	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr	Date	Type	P8TD	Perf	Perf	Perts	Size	Size	Depth	Sxs.	TOC
Bowers A Fed. #29	30-025-23131	29	-18S	-38E	L	5/1/69	Prod	6000	5831	5889		11.75	15	370	300	Surf 'c'
Exxon												8.625	11	3849	500	1877 'c'
												4.5	7.875	6000	450	5087 'c'
Bowers A Fed. #37	30-025-26485	30	-18S	-38E	P	10/1/79	Prod	3918	2637	3556		8.625	12.25	501	400	Circ.
Exxon												5.5	7.625	3910	850	Circ.
Bowers A Fed. #38	30-025-28580	30	-18S	-38E		2/1/84	Prod	6220	5760	7006		13.38	17.5	1476	1220	Circ.
Exxon								CIBP		OH		10.75	12.25	4491	1650	Circ.
												5.5	7.875	7000	660	4985
HD McKinley #8	30-025-23151	30	-18S	-38E	H	6/1/69	Prod	5615	3676	3754		13.375	17.5	360	340	SURF
Getty												8.625	11	3842	1400	SURF
												5.5	7.875	6057	650	3300
HD McKinley #9	30-025-23221	30	-18S	-38E	G	8/1/69	Prod	6861	5761	6965		13.375	17.5	378	400	Circ.
Getty								CIBP				9.625	12.25	3851	1748	Circ.
												7	8.75	6999	650	2700 TS
Seed St 30 #1	30-025-22994	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #2	30-025-22995	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #3	30-025-22996	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #4	30-025-22997	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #5	30-025-22998	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #6	30-025-22319	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

SEE #114
 30-025-2815
 PMX-191-054

Active Outside Operated wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBT	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
Seed St 30 #7	30-025-22320	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #8	30-025-22321	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
Seed St 30 #9	30-025-22322	30	-18S	-38E	K	2/1/69	Prod	45	10	45		7	8.5	10	2	No data
C.E. Seed									OH							
St #5	30-025-07483	30	-18S	-38E	K	2/1/48	Prod	3246	3155	3244		8.625	11	326	125	Surf 'c'
Saga Pet. LLC									OH			5.5	7	3155	1000	Surf 'c'
St #7	30-025-07485	30	-18S	-38E	N	4/1/48	Prod	3252	3171	3252		8.625	11	296	125	Surf 'c'
Saga Pet. LLC									OH			5.5	7	3171	900	Surf 'c'

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

Plugged wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
30342	30-025-12501	30	-18S	-38E	O	9/1/30	PA	4268	3974	4268		12.5	18	210	210	Circ.
Altura										OH		9.625	12	2738	650	Circ.
												7	8.75	3974	300	1144 cbl
B.A. Bowers #2	30-025-08045	30	-18S	-38E	J	5/1/30	PA	242	No data	No data		12.5		242	225	Surf 'c'
Exxon																
B.A. Bowers #6	30-025-07475	30	-18S	-38E	I	11/1/30	PA	3190	3147	3190		12.5	17	217	200	Surf 'c'
Exxon									OH			9.625	11.5	2750	650	Surf 'c'
												7	8.75	3147	120	2470 TS
Bowers A #12	30-025-07450	29	-18S	-38E	L	4/1/47	PA	3088	No data	No data		8.625	11	222	100	Surf 'c'
Exxon												5.5	7.875	3132	575	880 TS
Bowers A #13	30-025-07476	30	-18S	-38E	J	7/1/47	PA	3189	3148	3189		8.625	11	283	125	Surf 'c'
Exxon									OH			5.5	7.625	3150	1350	Surf 'c'
Bowers A #16	30-025-07478	30	-18S	-38E	O	10/1/47	PA	3225	3151	3221		8.625	11	262	150	Circ.
Exxon									OH			5.5	7.625	3151	1000	Circ.
Bowers A Fed. #1	30-025-07471	30	-18S	-38E	I	11/1/30	PA	6000	5812	5922		9.625	11.5	2750	620	No data
Exxon												7	8.75	3962	528	
												4.5	6.25	6000	275	2200 TS
Bowers A Fed. #15	30-025-07477	30	-18S	-38E	P	8/1/47	PA	3218	3158	3218		8.625	11	249	150	Circ.
Exxon									OH			5.5	7.625	3158	1250	Circ.
Bowers A Fed. #17	30-025-21900	30	-18S	-38E	J	10/1/66	PA	50	12	50		7	8	12	6	Circ.
Exxon									OH							
Bowers A Fed. #30	30-025-23144	30	-18S	-38E	P	6/1/69	PA	6000	5356	5946		8.625	11	3836	500	2300 TS
Exxon												4.5	7.875	5988	550	2800 TS
Bowers A Fed. #31	30-025-23176	29	-18S	-38E	E	6/1/69	PA	7050	6075	6991		8.625	11	3836	500	1858 'c'
Exxon												5.5	7.875	7038	650	3125 'c'

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

Plugged wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot Perf	Sqz Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
Bowers A Fed. #32	30-025-23235	30	-18S	-38E	O	8/69	PA		5825	5964	5887-01	13.375	17.5	385	400	2250
Exxon											6974-82	9.625	11	3850	550	2900
												7	8.75	7053	895	
Bowers A Fed. #9	30-025-07446	29	-18S	-38E	E	8/30	PA	4259	No data			12.5	17	226	250	Surf 'c'
Exxon												9.625	11	2750	650	Surf 'c'
												7	8.75	3976	300	2002 'c'
Bowers A Fed. #CT18	30-025-21965	30	-18S	-38E		1/67	PA	50								
Exxon																
Bowers A Fed. #CT19	30-025-21966	30	-18S	-38E		1/67	PA	30								
Exxon																
Bowers A Fed. #CT20	30-025-21967	30	-18S	-38E		1/67	PA	32								
Exxon																
Bowers A Fed. #CT21	30-025-21968	30	-18S	-38E		1/67	PA	37								
Exxon																
Bowers A Fed. #CT23	30-025-21962	29	-18S	-38E		1/67	PA	35								
Exxon																
Bowers A Fed. #CT24	30-025-21963	29	-18S	-38E		1/67	PA	35								
Exxon																
Bowers A Fed. #CT26	30-025-21969	30	-18S	-38E		1/67	PA	35								
Exxon																
Bowers A Fed. #CT27	30-025-21970	30	-18S	-38E		1/67	PA	35								
Exxon																
Bowers Fed. A #10	30-025-22147	30	-18S	-38E	J	6/67	PA	38	10	38		7	7.875	10	3	No data
ARC Ind.									OH							

NO DATA IN STATE RECORDS

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

Plugged wells within 1/2 mile radius of proposed 30-332 conversion

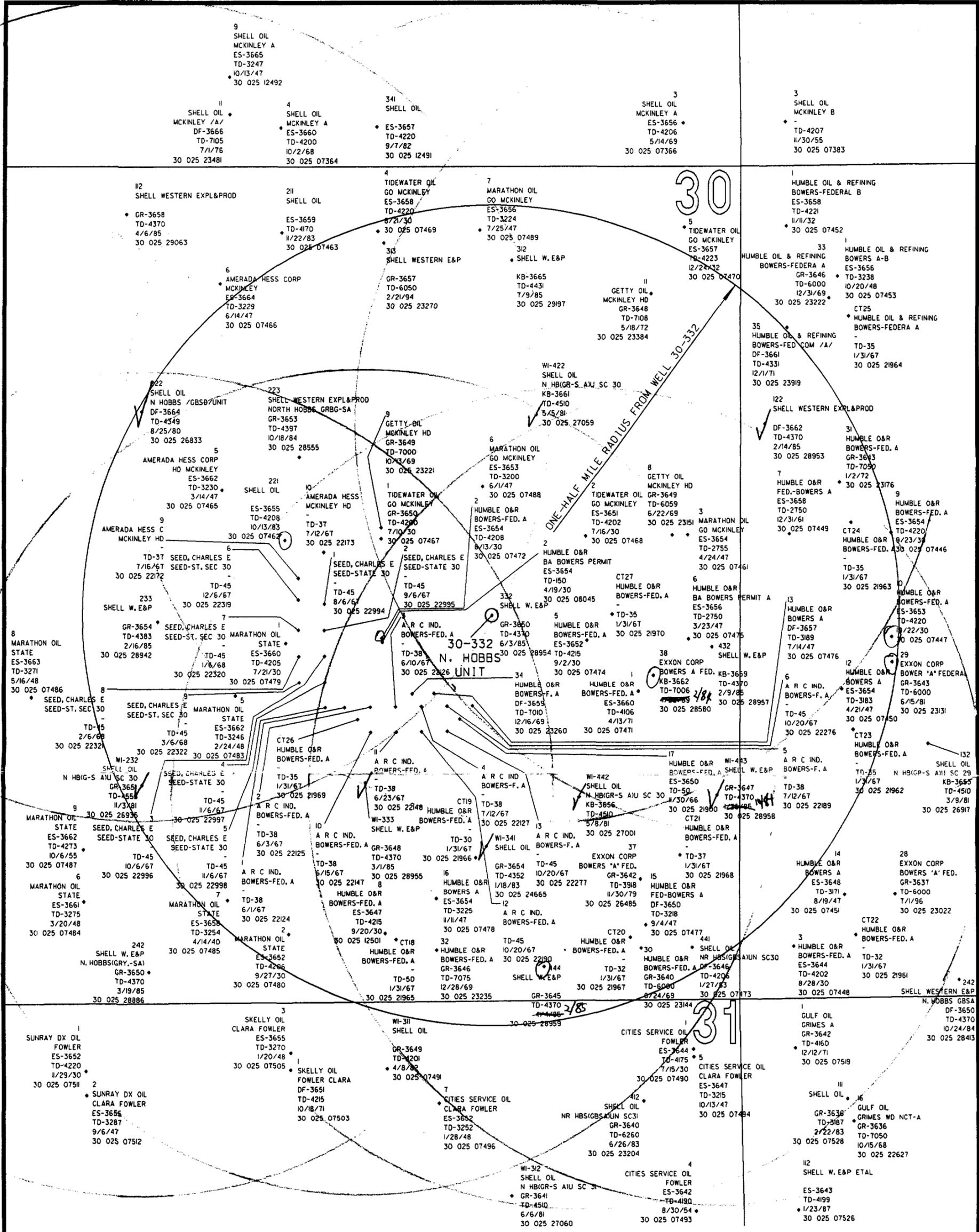
Well Name	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper																
Bowers Fed. A #11	30-025-22148	30	-18S	-38E	J	6/67	PA	38	10	38		6.625	6.75	10	3	No data
ARC Ind.									OH							
Bowers Fed. A #12	30-025-22190	30	-18S	-38E	J	10/67	PA	45	10	45		6.625	6.75	10	3	No data
ARC Ind.									OH							
Bowers Fed. A #2	30-025-22125	30	-18S	-38E	J	6/67	PA	38	10	38		6.625	6.75	10	3	No data
ARC Ind.									OH							
Bowers Fed. A #3	30-025-22126	30	-18S	-38E	J	6/67	PA	38	10	38		7	7.785	10	3	No data
ARC Ind.									OH							
Bowers Fed. B #1	30-025-07452	29	-18S	-38E	D	9/32	PA	4239	4181	4239		15.5		235	225	No data
Exxon									OH			9.625	12.25	2716	650	Surf 'c'
												7	8.75	3987	300	2027 'c'
F. A Bowers #13	30-025-22277	30	-18S	-38E	J	10/67	PA	45	10	45		5.5	6.75	10	3	No data
ARC Ind.									OH							
F. A Bowers #4	30-025-22127	30	-18S	-38E	J	7/67	PA	38	10	38		6.625	6.75	10	3	No data
ARC Ind.									OH							
F. A Bowers #5	30-025-22189	30	-18S	-38E	J	7/67	PA	38	10	38		6.625	6.75	10	3	No data
ARC Ind.									OH							
F. A Bowers #6	30-025-22276	30	-18S	-38E	J	10/67	PA	45	10	45		5.5	6.75	10	3	No data
ARC Ind.									OH							
H.D. McKinley #3	30-025-07461	30	-18S	-38E	H	7/30	PA	3199	3166	3199		9.625	12.25	2755	600	337 'c'
Getty									OH			7	8.25	3166	100	2595 'c'
H.D. McKinley #6	30-025-07488	30	-18S	-38E	G	6/47	PA	3200	3178	3200		8.625	11	1474	400	Circ.
Getty									OH			5.5	6.875	3178	200	498 'c'
HD McKinley #5	30-025-07465	30	-18S	-38E	F	3/47	PA	3230	3197	3206		7.625	9.875	432	200	Circ.
Amerada									OH			5.5	6.75	3130	600	2992

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

Plugged wells within 1/2 mile radius of proposed 30-332 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perts	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
McKinley #10	30-025-22173	30	-18S	-38E	F	6/67	PA	37	10-37 OH			5.5	6.75	10	1 YD	No data
Amerada																
McKinley #9	30-025-22172	30	-18S	-38E	F	6/67	PA	37	10-37 OH			5.5	6.75	10	1 YD	No data
Amerada																

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.



NOTE:
WELL DATA DERIVED FROM THE PETROLEUM
INFORMATION - DATA MANAGEMENT SYSTEM,
WELL DATA SYSTEM PREPARED FOR AMOCO.

Altura Altura Energy Ltd.
ENERGY, LTD.

Area of Review Plat
**NORTH HOBBS (GRAYBURG
SAN ANDRES) UNIT**
WELL NO. 30-332
T-18-S, R-38-E
Lea County, New Mexico

Scale: 1" = 600' 07-03-99 nm438a00.dgn - 11
Plat prepared by PJE Drafting, Inc.
For Horizon Survey, Inc.

CMD : ONGARD 12/20/99 14:10:39
OG6IWCM INQUIRE WELL COMPLETIONS OGOMWA -TPRC

API Well No : 30 25 28580 Eff Date : 11-01-1999 WC Status : A
Pool Idn : 31680 HOBBS;UPPER BLINEBRY
OGRID Idn : 113315 TEXLAND PETROLEUM INC
Prop Idn : 25070 BOWERS A FEDERAL

Well No : 038
GL Elevation: 3647

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/A)
B.H. Locn	I	30	18S	38E	FTG 2080 F S FTG	560 F E	A

Lot Identifier:

Dedicated Acre: 40.00

Lease Type : F

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 PF08 PF09 PF10 NEXT-WC PF11 HISTORY PF12 NXTREC

AMX-202



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

12/10/99

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

GOVERNOR

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

RE: Proposed:

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

Gentlemen:

I have examined the application for the:

<u>Altura Energy Ltd</u>	<u>N Hobbs GB/SA Unit</u>	<u># 332-J-3D-18-38</u>
Operator	Lease & Well No. Unit	S-T-R <u>3D-025-25954</u>

and my recommendations are as follows:

OK

Yours very truly,

Chris Williams
Supervisor, District 1

/ed