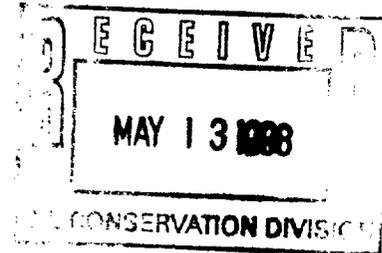


PMX 5/26/98



May 8, 1998

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. 331  
Letter J, Section 32, 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. 331 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. 331). 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 or require additional information, please call me at (281) 552-1158.

Very Truly Yours,

*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

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, Texas 77210-4294  
Contact party: Mark Stephens 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 geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Mark Stephens Title Business Analyst (SG)

Signature: Mark Stephens Date: May 8, 1998

- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Hearing October 3, 1979; Case No. 6653, Order No. R-6199

## III. WELL DATA

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

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

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

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

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

## XIV. PROOF OF NOTICE

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

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

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

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

---

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

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, Texas 77210-4294

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

IX. Describe the proposed stimulation program, if any.

\* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

\* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Mark Stephens Title Business Analyst (SG)

Signature: Mark Stephens Date: May 8, 1998

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Hearing October 3, 1979; Case No. 6653, Order No. R-6199

## III. WELL DATA

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

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

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

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

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

## XIV. PROOF OF NOTICE

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

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

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

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

---

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

Attachment To Form C-108  
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit  
Well No. 331  
Letter J, Section 32, 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 – Reinjecting Produced Water (analysis attached)

IX. Stimulation Program

Acid treatment of unitized perforations will be performed during conversion work

- 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.



P.O. BOX 2187  
HOBBS, NEW MEXICO 88240

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

Telephone (505) 383-7726

**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

**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

\* - Calculated Value

**Physical Properties**

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

\* - Calculated Value † - Known/Specified Value

**Calcite Calculation Information**

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

**SI & PTB Results**

Scale Type	SI	PTB
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



P.O. BOX 2187  
HOBBS, NEW MEXICO 88240

**Ranged Data**  
Champion Technologies, Inc.

Telephone (505) 393-7726

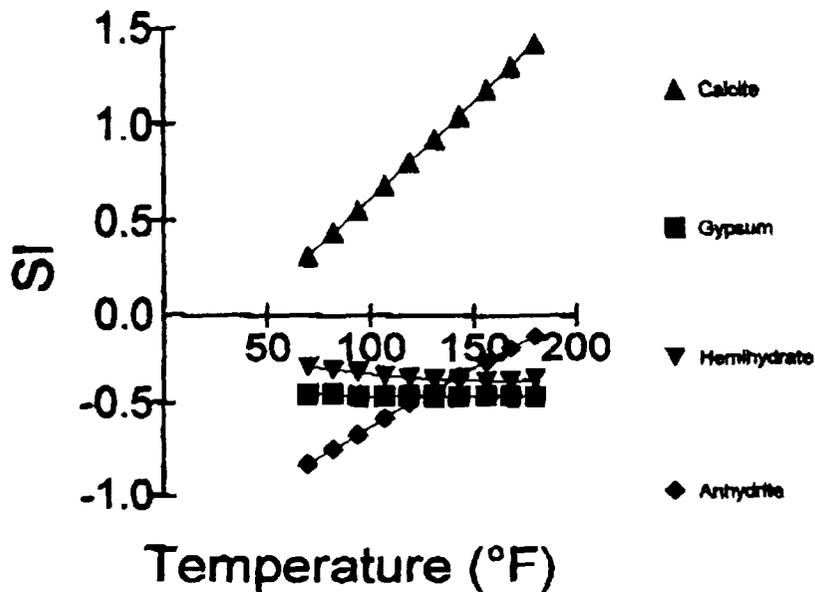
**Site Information**

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**



District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

Form C-102  
 Revised February 21, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-07538	<sup>2</sup> Pool Code 31920	<sup>3</sup> Pool Name HOBBS; GRAYBURG - SAN ANDRES
<sup>4</sup> Property Code 19520	<sup>5</sup> Property Name NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT	
<sup>7</sup> OGRID No. 157984	<sup>8</sup> Operator Name ALTURA ENERGY LTD.	<sup>6</sup> Well Number 331
		<sup>9</sup> Elevation 3634.00'

<sup>10</sup> 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	32	18S	38E		2310'	SOUTH	2310'	EAST	LEA

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup> 	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Mark Stephens</i> Signature Mark Stephens Printed Name Business Analyst (SG) Title April 30, 1998 Date
	<sup>18</sup> SURVEYOR CERTIFICATION 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.  JANUARY 15, 1998 Date of Survey Signature and Seal of Professional Surveyor  <i>Larry A. Fisher</i> LARRY A. FISHER Certificate Number 11013



District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

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OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-07538		<sup>2</sup> Pool Code 31920		<sup>3</sup> Pool Name HOBBS; GRAYBURG - SAN ANDRES	
<sup>4</sup> Property Code 19520	<sup>5</sup> Property Name NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT				<sup>6</sup> Well Number 331
<sup>7</sup> OGRID No. 157984	<sup>8</sup> Operator Name ALTURA ENERGY LTD.				<sup>9</sup> Elevation 3634.00'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
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16					<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p style="text-align: center;"><i>Mark Stephens</i></p> <p>Signature          Mark Stephens</p> <p>Printed Name          Business Analyst (SG)</p> <p>Title          April 30, 1998</p> <p>Date</p>
					<p><sup>18</sup> 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 style="text-align: center;">JANUARY 15, 1998</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p style="text-align: center;"><i>Larry A. Fisher</i></p> <p>LARRY A. FISHER</p> <p>Certificate Number 11013</p>

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
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 1000 Rio Brazos Rd., Aztec, NM 87410  
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State of New Mexico  
 Energy, Minerals & Natural Resources Department

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OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-07538		<sup>2</sup> Pool Code 31920		<sup>3</sup> Pool Name HOBBS; GRAYBURG - SAN ANDRES	
<sup>4</sup> Property Code 19520	<sup>5</sup> Property Name NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT				<sup>6</sup> Well Number 331
<sup>7</sup> OGRID No. 157984		<sup>8</sup> Operator Name ALTURA ENERGY LTD.			<sup>9</sup> Elevation 3634.00'

<sup>10</sup> 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	32	18S	38E		2310'	SOUTH	2310'	EAST	LEA

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

16				<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>	
				Signature <u>Mark Stephens</u> Printed Name Mark Stephens Title Business Analyst (SG) Date April 30, 1998	
				<sup>18</sup> SURVEYOR CERTIFICATION <i>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.</i>	
				Date of Survey <u>JANUARY 15, 1998</u> Signature and Seal of Professional Surveyor <u>Larry A. Fisher</u> LARRY A. FISHER Certificate Number 11013	

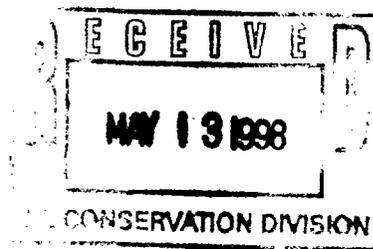
PMX 5/26/98

195



May 8, 1998

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. 142  
Letter M, Section 33, 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. 142 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. 142). 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 or require additional information, please call me at (281) 552-1158.

Very Truly Yours,

*Mark Stephens*

Mark Stephens  
Business Analyst (SG)

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

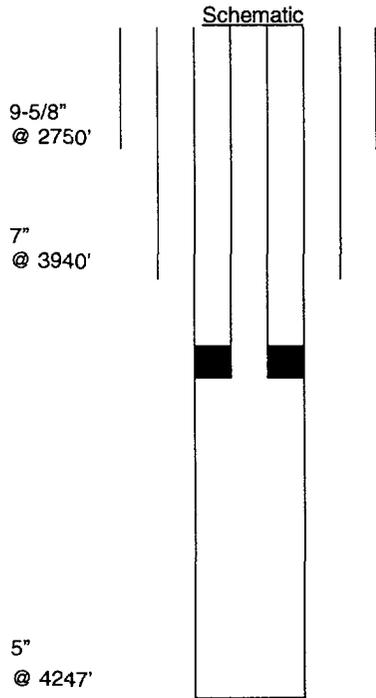
State of New Mexico  
Commissioner of Public Lands  
P.O. Box 1148  
Santa Fe, NM 87504-1148

Offset Operators (see attached list)

Surface Owners (see attached list)

# INJECTION WELL DATA SHEET

Operator Altura Energy LTD.		Lease North Hobbs G/SA Unit			County Lea
Well No. 32-331	Footage Location 2310' FSL & 2310 FEL	Section 32	Township 18-S	Range 38-E	Unit Letter J



		<u>Tubular Data</u>	
<u>Surface Casing</u>			
Size	9-5/8"	Cemented with	300 sxs.
TOC	915'	Determined by	Calc.
Hole size _____			
<u>Intermediate Casing</u>			
Size	7	Cemented with	700 sxs.
TOC	Cric.	Determined by	_____
Hole size _____			
<u>Long string Casing</u>			
Size	5	Cemented with	75 sxs.
TOC	2430	Determined by	CBL
Hole size _____			
Total depth		4261	
<u>Injection interval</u>			
4040		feet to	4245 feet
<u>Completion type</u>		Perforations	

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a  
Giberson Uni VI packer at ±4000 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 will 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)  
Upper San Andres 3964-97' will be cement squeezed upon approved permitting and preparing well for injection
5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.  
Grayburg - 3715, Glorieta - 5300

Active Offset Wells within 1/2 mile radius of proposed 32-331 conversion

Well Name	API #	Location	Un Ltr	Drill Date	Type	TD or PBT	Top Perf.	Botm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
Shell (Altura) St. A #1	30-025-12504	32 - 18S - 38E	G	3/1/40	Prod.	4175	3621	3685		12 1/2	12	222	135	910 Calc
										9	8-3/4	2755	600	2445 Calc
										7		3850	200	
Shell (Altura) St. A #6	30-025-22944	32 - 18S - 38E	G	4/1/69	Prod.	6200	5805	5929		13 3/8	17 1/2	357	350	Circ.
										8 5/8	12 1/4	3820	800	1770 Calc
										5.5 Lnr	7 7/8	3566-6020	500	Circ.
Amerada Hess (Collins & Ware) St. A #4	30-025-23076	32 - 18S - 38E	B	3/27/69	Prod.	5325	5375	5966		11 3/4	15	380	350	Circ.
										8 5/8	11	3810	590	1354 Calc
										5 1/2 Lnr	7 7/8	3695-5998	325	Circ.
Chevron WD Grimes NCT-A #17	30-025-22792	32 - 18S - 38E	C	10/19/68	Prod.	6150	5780	5949		13 3/8	17 1/2	366	370	Circ. Calc
										9 5/8	12 1/4	3399	1450	
										7	8 3/4	6149	545	2510
Chevron WD Grimes NCT-A #18	30-025-22915	32 - 18S - 38E	F	2/1/69	Prod.	6020	5772	5928		13 3/8	17 1/2	351	335	
										8 5/8	11	3799	500	1718 calc
										5 1/2	7 7/8	6019	505	2470
Marathon St. #8 (Saga #9)	30-025-07542	21 - 18S - 38E	I	7/2/48	Prod.	3192	OH			8 5/8	11	300	125	Circ
										5 1/2	7	3124	1000	350
Marathon St. Sec 32 #9	30-025-23309													
NHU 32-131	30-025-07527	32 - 18S - 38E	L	8/12/34	Prod.	4250	4118	4237		13 3/8		212	200	
										9 5/8		2740	350	
										7		3986	150	3140 CBL
										4.5 Lnr		3813-4250	65	4110 CBL

## Active Offset Wells within 1/2 mile radius of proposed 32-331 conversion

Well Name	API #	Location	Un Ltr	Drill Date	Type	TD or PBD	Top Perf.	Btm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
NHU 32-132	30-025-27139	32 - 18S - 38E	L	12/3/80	INJ	4510	4128	4254	4092-4097	16		40	40	Circ
										8 5/8		1550	875	Circ
										5 1/2		4510	1275	Circ
NHU 32-142	30-025-28265	32 - 18S - 38E	M	9/5/83	INJ	4460	4135	4313		16		40	40	Circ
										8 5/8		1525	850	Circ
										5 1/2		4460	680	2700 CBL
NHU 32-144	30-025-31662	32 - 18S - 38E	M	11/01/93	Prod.	4400	4163	4247		13 3/8	17 1/2	40	850	Circ
										8 5/8	12 1/4	1545	810	Circ
										5 1/2	7 7/8	4400		Circ
NHU 32-211	30-025-07525	32 - 18S - 38E	C	2/3/31	Prod.	4252	4083	4206		13 3/8	17	189	200	Circ
										9 5/8	12 1/4	2736	600	977
										7	8 3/4	3860	300	2210 CBL
										5 Lnr		3782-4251		
NHU 32-212	30-025-30258	32 - 18S - 38E	C	3/29/88	Prod.	4304	4135	4256		13 3/8	17 1/2	40	60	Circ
										9 5/8	12 1/4	1650	650	Circ
										7	8 3/4	4350	1150	Circ
NHU 32-221	30-025-07520	32 - 18S - 38E	F	7/1/30	Prod.	4050	3864	3956		15 1/2		206	200	
										9 5/8		2751	600	
										6 5/8		3940	200	2892 CBL
										4 1/2		3748-4289	70	Circ.
NHU 32-222	30-025-27140	32 - 18S - 38E	F	11/21/80	INJ		4090	4256		16		40	40	Circ
										8 5/8		1607	800	Circ
										5 1/2		4510	900	724 CBL
NHU 32-223	30-025-28944	32 - 18S - 38E	F	3/27/85	INJ	4325	4079	4251		13 3/8		40	600	Circ
										9 5/8		1500	975	Circ
										7		4369		Circ

Active Offset Wells within 1/2 mile radius of proposed 32-331 conversion

Well Name	API #	Location	Un Ltr	Drill Date	Type	TD or PBT	Top Perf.	Btm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
NHU 32-231	30-025-07521	32 - 18S - 38E	K	8/28/30	Prod.	4030	3961	4000	4068-4192	15 1/2		207	600	996 Calc
										9 5/8		2738	300	2246
										7		3946	90	
										4 1/2		3701-4194		Circ
NHU 32-232	30-025-23035	32 - 18S - 38E	K	4/69	Prod.	4201	4115	4191	4234-36	13-3/8	17-1/2	383	400	Circ.
										8-5/8	11	3829	500	2041 Calc
										5-1/2	7-7/8	6019	450	3680 CBL
NHU 32-241	30-025-07533	32 18S - 38E	N	12/19/48	Prod.	4250	OH		3850-4072	13 3/8		328		Circ
										7		4094		2337
NHU 32-313	30-025-30263	32 - 18S - 38E	B	4/7/88	Prod.	4350	4120	4229		14	17	53	650	Circ
										9 5/8	12 1/4	1510	1250	Circ
										7	8 3/4	4346		
NHU 32-321	30-025-12506	32 - 18S - 38E	G	3/27/85	INJ	4275	4056	4237		12 1/2		230	200	Circ
										9		2759	600	Circ
										6-5/8		3950	225	2472 CBL
										3.5 Lnr.		3808-4274	85	Circ
NHU 32-322	30-025-07518	32 - 18S - 38E	G	7/20/30	Prod.	4251	4110	4210	4035-4076	12 1/2		240	200	
										8 5/8		2750	600	
										7		3960	225	2900 CBL
										5.5 Lnr		3911-4217	100	Circ
NHU 32-323	30-025-26973	32 18S - 38E	G	9/5/80	INJ	4400	4062	4278	4304-4392	16		40		Circ
										8 5/8		1600		Circ
										5 1/2		4400		3624
NHU 32-341	30-025-07539	32 - 18S - 38E	O	8/28/30	INJ	4236	4174	4230		16		221	250	Circ.
										9 5/8		2750	556	1136
										7		3925	225	2564
										5		4235	60	3366 CBL

Active Offset Wells within 1/2 mile radius of proposed 32-331 conversion

Well Name	API #	Location	Un Ltr	Drill Date	Type	TD or PBT	Top Perf.	Btm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
NHU 32-342	30-025-28266	32 - 18S - 38E	O	9/25/83	INJ	4430	4091	4283		16		30	40	
										8 5/8		1522	700	Circ
										5 1/2		4430	650	1000 CBL
NHU 32-343	30-025-29906	32 - 18S - 38E	O	05/30/87	Prod.	4370	4141	4206	4030-4235	14		40	600	Circ
										9 5/8		1498	600	Circ
										7		4370	1150	Circ
NHU 32-421	30-025-12507	32 - 18S - 38E	H	8/24/30	Prod.	4219	4092	4202	4046-56	12-1/2		245	200	
										9-5/8		2755	600	
										7		3950	225	2385 CBL
										5-1/2 Lnr		3916-4219	125	Circ.
NHU 32-424 (Shell St. A #7)	30-025-23130	32 18S - 38E	H	6/14/69	Prod.	5210	4128	4244		13 3/8	17 1/2	350	350	Circ.
										8 5/8	12 1/4	3790	1300	Circ.
										5 1/2		3850-7015		Circ.
NHU 32-431	30-025-07537	32 - 18S - 38E	I	6/26/30	Prod.	4175	4066	4220		12 1/2		205	225	Circ
										9 5/8		2750	475	1007 Calc
										7		3968	350	1851 Calc
										5		4244	65	2580 TS
NHU 32-432	30-025-26974	32 - 18S - 38E	I	10/9/80	INJ	4400	4062	4250		16		40	40	
										8 5/8		1600	850	Circ
										5 1/2		4400	950	Circ
NHU 32-441	30-025-07536	32 - 18S - 38E	P	8/14/30	Prod.	4244	4060	OH		12 1/2		186	125	Circ
										8 5/8		2750	400	1282 Calc
										7		3871	250	2459
										5		4234	60	3500 CBL

Plugged Offset Wells within 1/2 mile radius of proposed 32-331 convesion

Well Name	API #	Location	Un	Ltr	Drill Date	Type	TD or PBT	Top Perf.	Btm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
St Sec 32 #1											7	8.75	3850	275	1917 calc
											5		3244	500	Circ.
NHU 32-311	03-025-07515	32 - 18S - 38E	B		8/30	Prod.	4165				12-1/2	16	207	200	Circ. Calc
Amerada											9-5/8	11-3/4	2739	425	1179 Calc
St A #1											7	8-3/4	3938	350	2740 CBL
Chevron															
WD Grimes															
NCT-B No. 6	30-025-07558	32 - 18S - 38E	I		3/24/49	Prod.	3229				9-5/8	12-1/4	300	225	Circ.
											5-1/2	7-7/8	3150	775	550 Calc.

Plugged Offset Wells within 1/2 mile radius of proposed 32-331 conversion

Well Name	API #	Location	Un	Ltr	Drill Date	Type	TD or PBT	Top Perf.	Btm. Perf.	Sqz. Perfs.	Csg. Size	Hole Size	Depth	No. of Sxs	TOC
Shell (Altura) St. A #5	30-025-08409	32 - 18S - 38E	H		9/21/48	Prod.	3184	OH			8 5/8	11	402	200	Circ.(calc)
											5	7 3/4	3133	800	Circ.(calc)
Amerada Hess St. A #3	30-025-07517	32 - 18S - 38E	B		1/17/47	Prod.	3162	3149	3150		10 3/4	13 3/4	221	200	
											7 5/8	9 7/8	1570	300	95 Calc
											5 1/2	6 3/4	3164	600	Circ.
Chevron WD Grimes NCT-A #11	30-025-07529	32 - 18S - 38E	F		12/22/47	Prod.	3169	OH			9 5/8	12 1/4	307	200	Circ.(Calc)
											7	8 3/4	3140	600	2160 (TS)
Chevron WD Grimes NCT-A #12	30-025-07530	32 - 18S - 38E	L		1/26/48	Prod.	3190	OH			9 5/8	12 1/4	304	200	Circ. (Calc)
											7	8 3/4	3145	700	1090 (TS)
Chevron WD Grimes NCT-A #13	30-025-7531	32 - 18S - 38E	E		2/17/48	Prod.	3222	OH			8 5/8	12	312	225	Circ.
											5 1/2	7 3/8	3140	600	1555 (TS)
Chevron WD Grimes NCT-A #14-Y	30-025-07534	32 - 18S - 38E	M		3/9/48	Prod.	3256	OH			9 5/8	12 1/4	331	225	Circ. Calc
											5 1/2	8 3/4	3141	800	355 (TS)
Marathon St #6 (Saga)	30-025-07540	32 - 18S - 38E	O		5/12/48	Prod.		3154	3200		8 5/8	11	301	125	Circ.(Calc)
											5 1/2	7	3116	750	330
Marathon St. #7 Saga	30-025-07541	32 - 18S - 38E	P		6/29/48	Prod.	3213	3157	3206		8 5/8	11	310	125	Circ. Calc
											5 1/2	7	3116	1000	Circ. Calc
Ohio Oil (Marathon) St. Northrup #1	30-025-07535	32 - 18S - 38E	J		6/30/30	Prod.	3227	OH			20	16	100	100	
											12 1/2	16	1482	175	1142 calc
											10-3/4	13.75	2868	200	2341 calc

**WELL SCHEMATIC - Shell St. A #5**

Well plugged 10/19/53

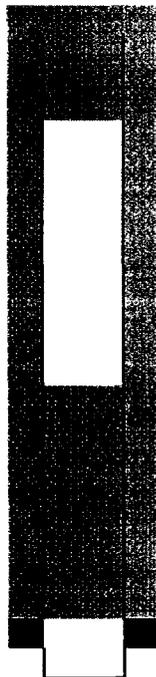


2 sxs cmt plug at surface

Pulled 920 feet of 5" casing.

8-5/8"  
402'  
200 sxs  
TOC: Circ.  
Calculated at 80%  
efficiency

5 sxs cmt plug at 8-5/8 shoe  
384' - 400'



5 sxs cmt plug at top of 5-1/2 csg.  
900'-930'

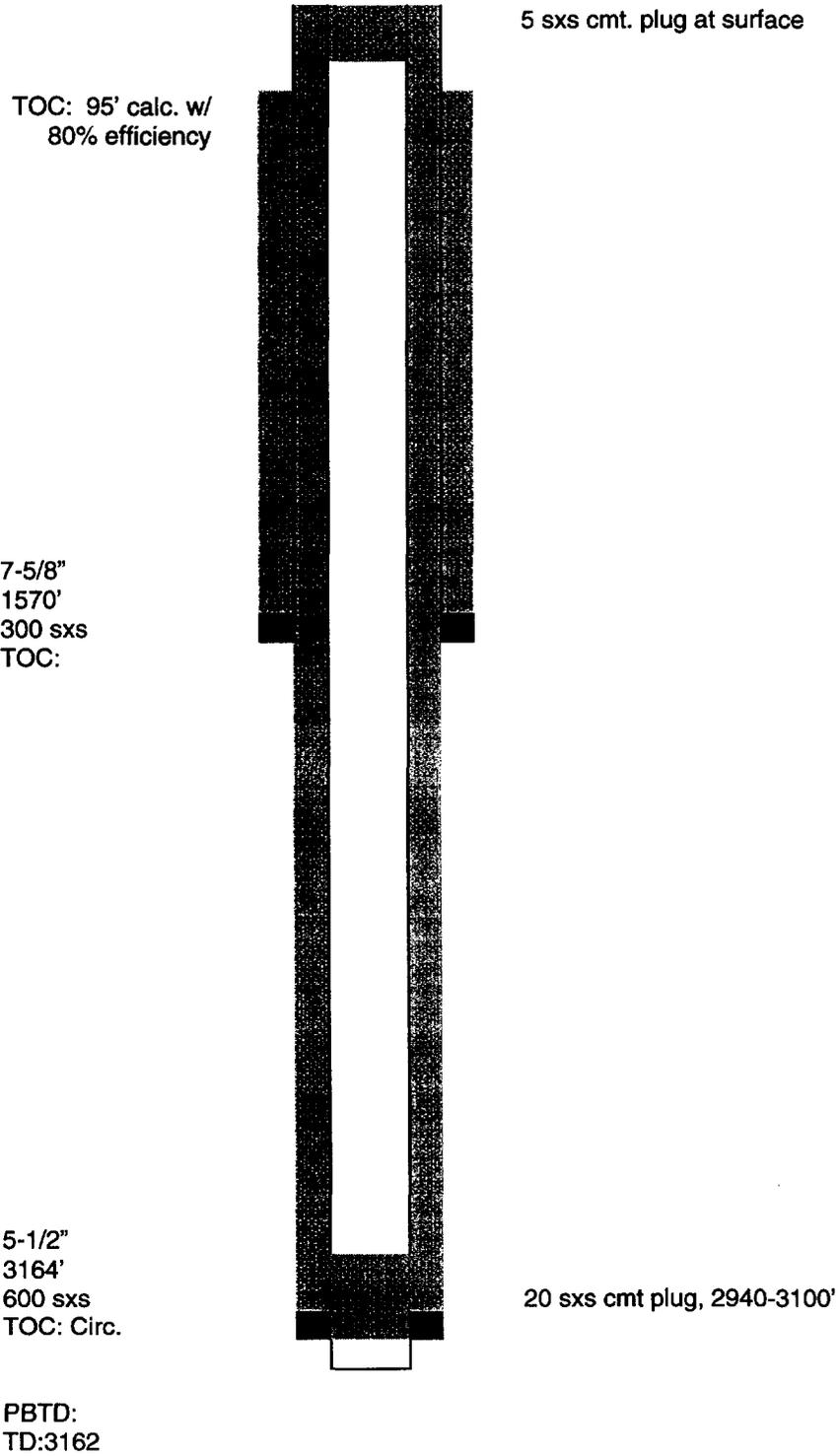
6 sxs Cmt Plug 3060 to 3100

5"  
3133'  
800 sxs  
TOC:

PBTD:  
TD:3184

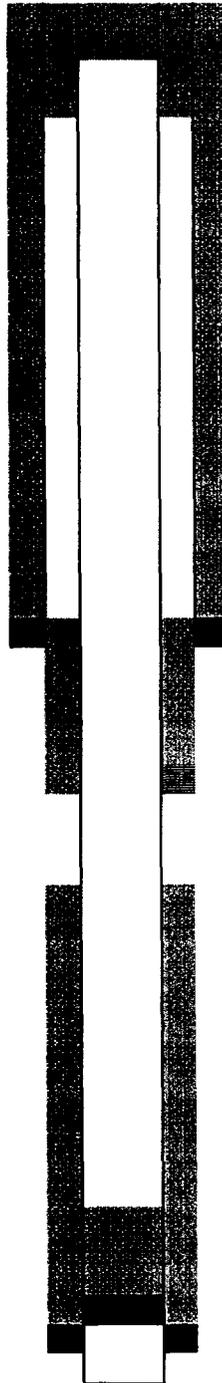
**WELL SCHEMATIC - Amerada St A #3**

Well plugged 4/23/59



**WELL SCHEMATIC - Chevron WD Grimes NCT-A #11**

Well plugged 6/19/96



Spotted 45 sxs plug at surface in 7"

Bradenhead sqz'd 55 sxs in 7" x 9-5/8" annulus

9-5/8"  
307'  
300 sxs  
TOC: Circ., calc. w/  
80% efficiency

Perforated and sqz'd 130, 300-1500'

TOC: 2160 (TS)

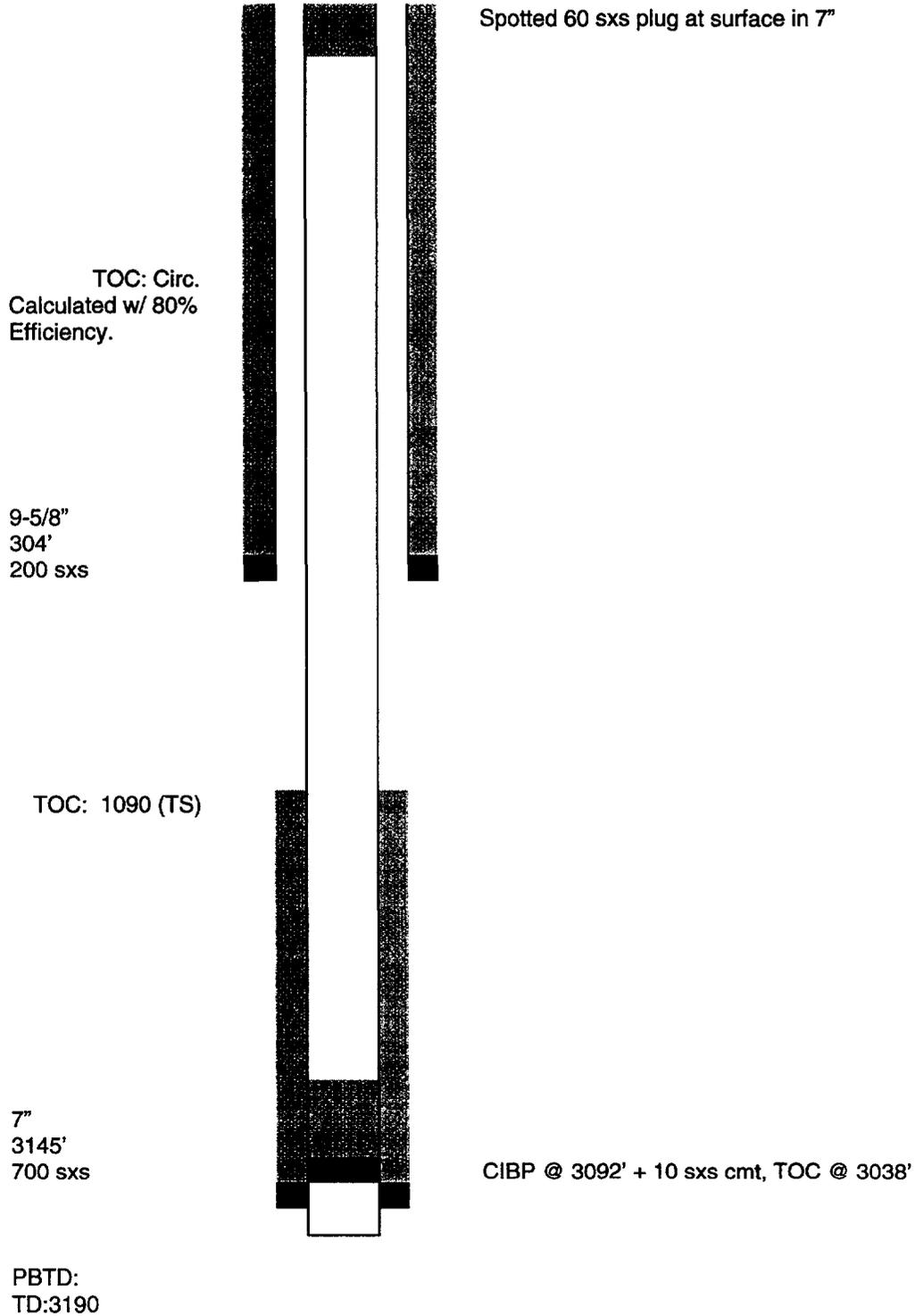
5-1/2"  
3160'  
600 sxs

CIBP @ 3092' + 25 sxs cmt, TOC @ 2947'

PBTD:  
TD:3169

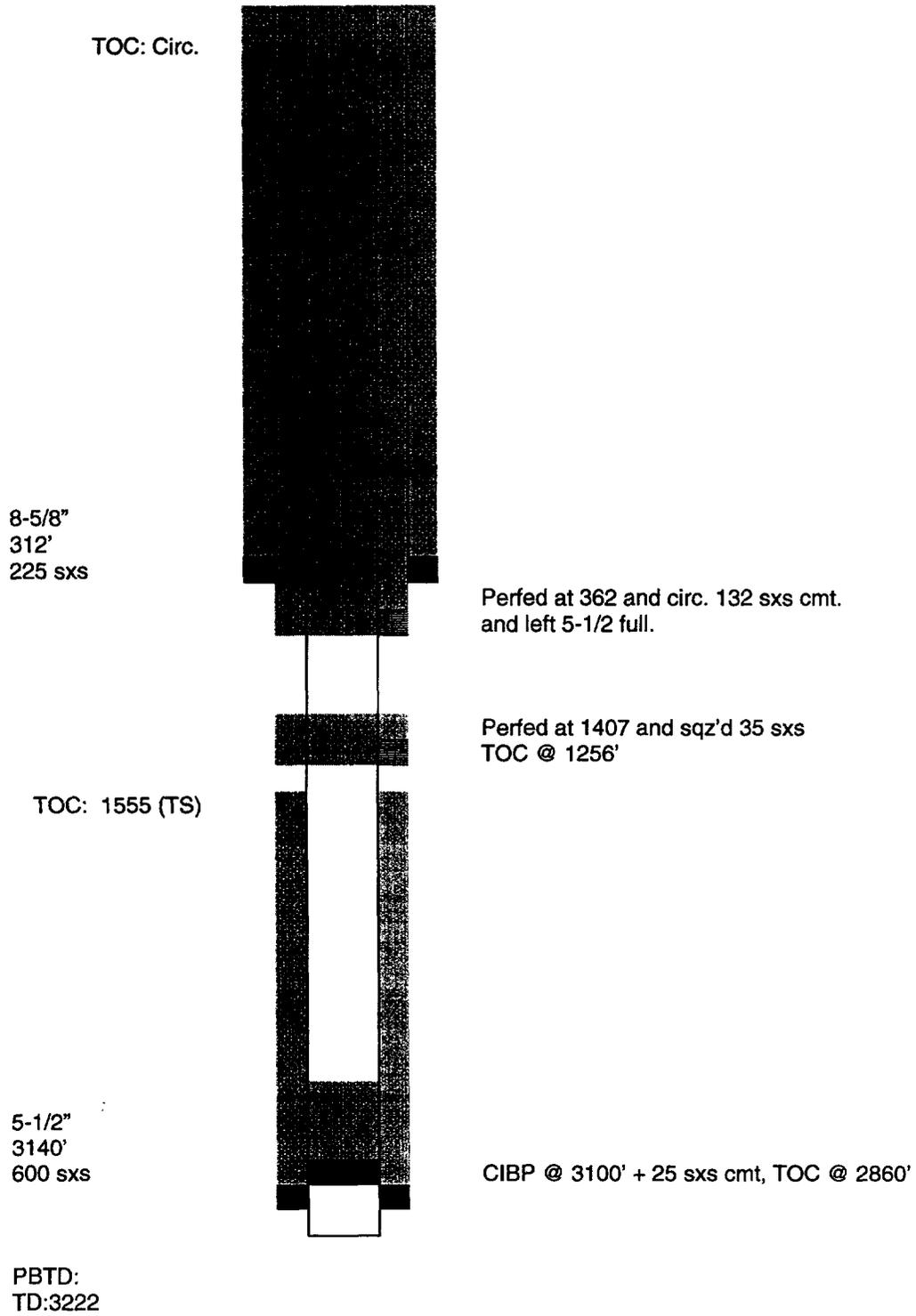
**WELL SCHEMATIC - Chevron WD Grimes NCT-A #12**

Well plugged 3/24/66



**WELL SCHEMATIC - Chevron WD Grimes NCT-A #13**

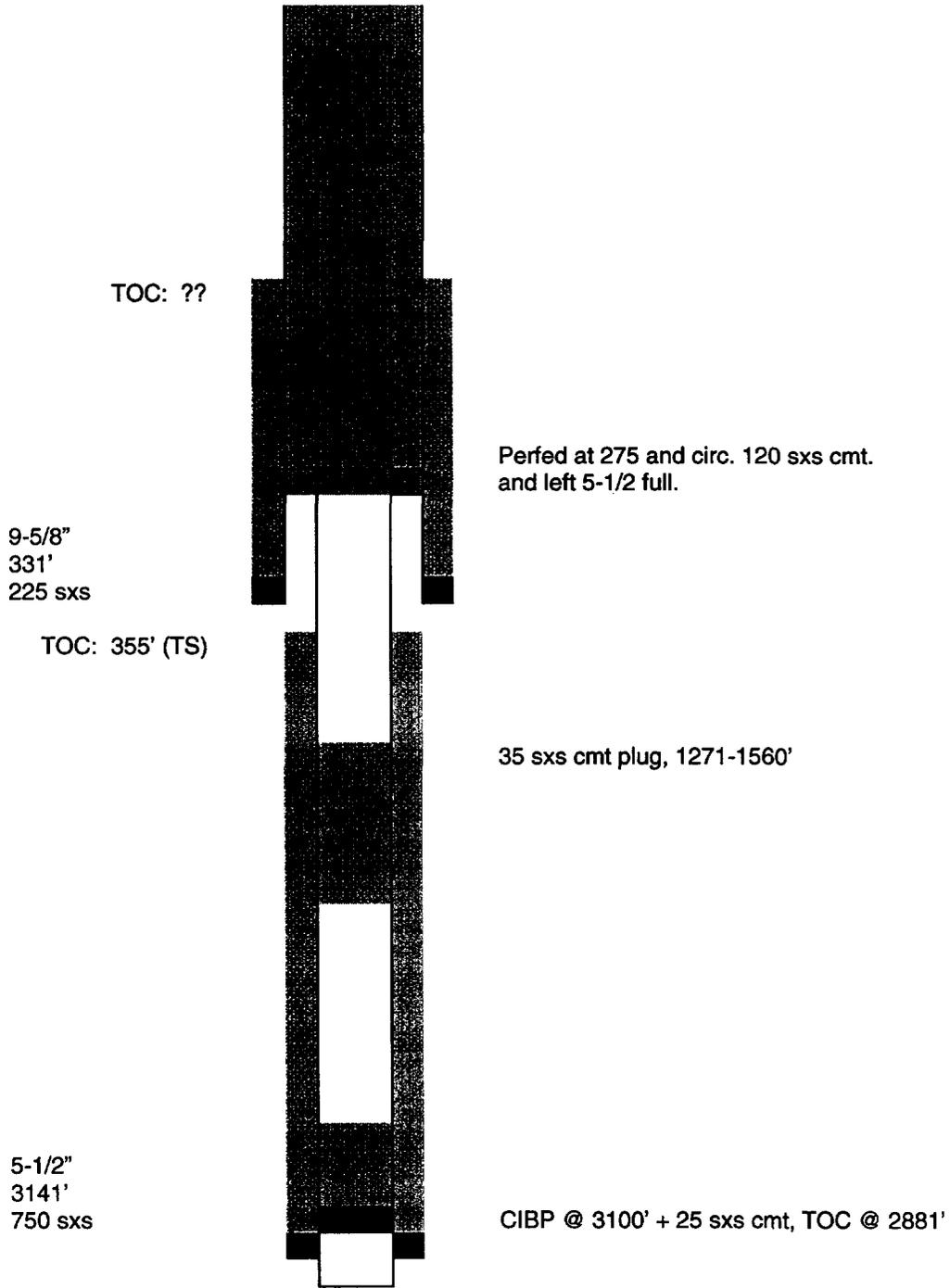
Well plugged 6/20/96



**WELL SCHEMATIC - Chevron WD Grimes NCT-A #14-Y**  
Replacement well (See page 2)

Well plugged 6/22/96

Page 1 of 2



TOC: ??

Perfed at 275 and circ. 120 sxs cmt.  
and left 5-1/2 full.

9-5/8"  
331'  
225 sxs

TOC: 355' (TS)

35 sxs cmt plug, 1271-1560'

5-1/2"  
3141'  
750 sxs

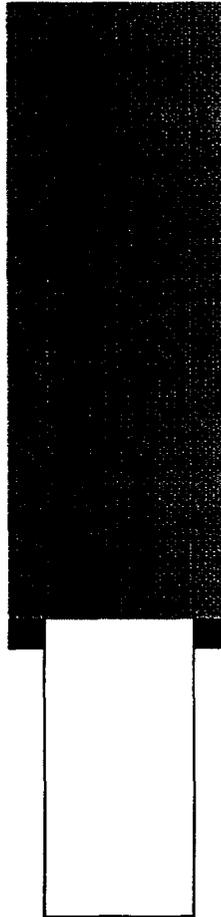
CIBP @ 3100' + 25 sxs cmt, TOC @ 2881'

TD:3256

**WELL SCHEMATIC - Chevron WD Grimes NCT-A #14**

Well plugged   /  /  

Page 2 of 2



Lost initial well during drilling.  
Circulated 320 sxs of cmt. In 8-5/8"  
Casing from shoe to surface.

Original Survey: 660 FWL & 660 FSL

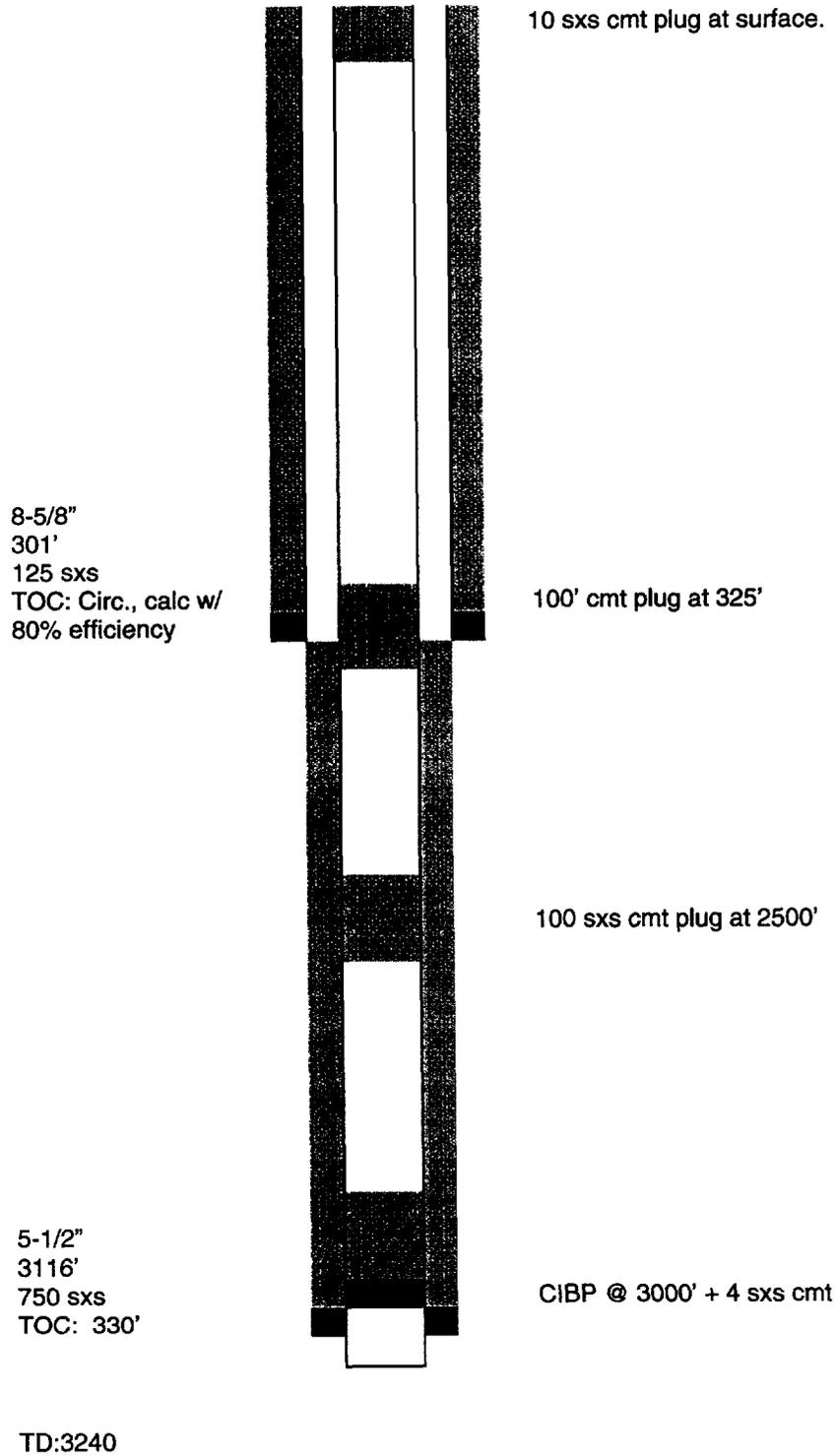
Move rig over and drilled new well.  
New Survey: 990 FWL & 990 FSL

8-5/8"  
313'  
235 sxs  
TOC: Circ.

TD:2600

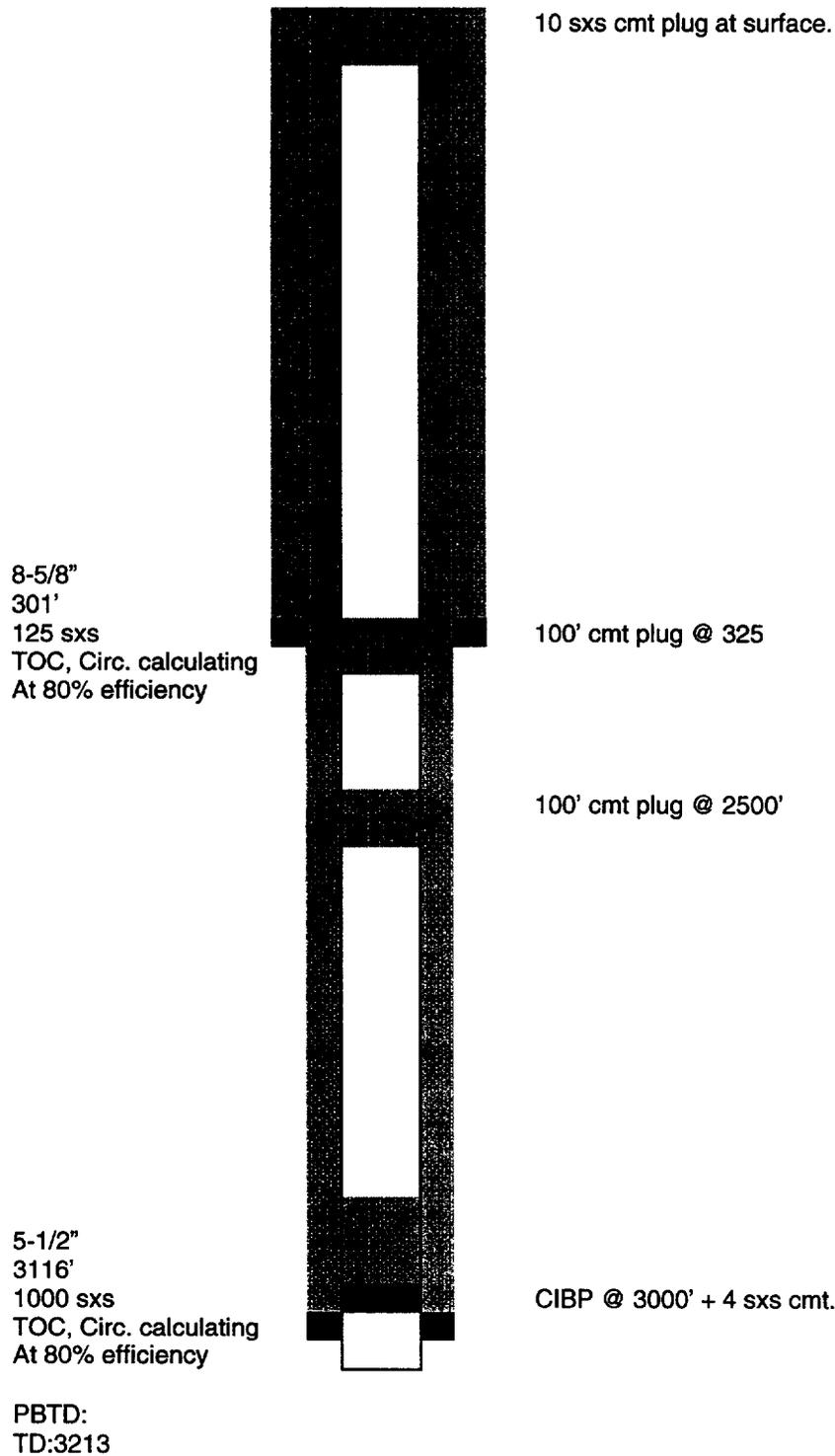
WELL SCHEMATIC - Saga St Sec 32 #6

Well plugged 4/16/93



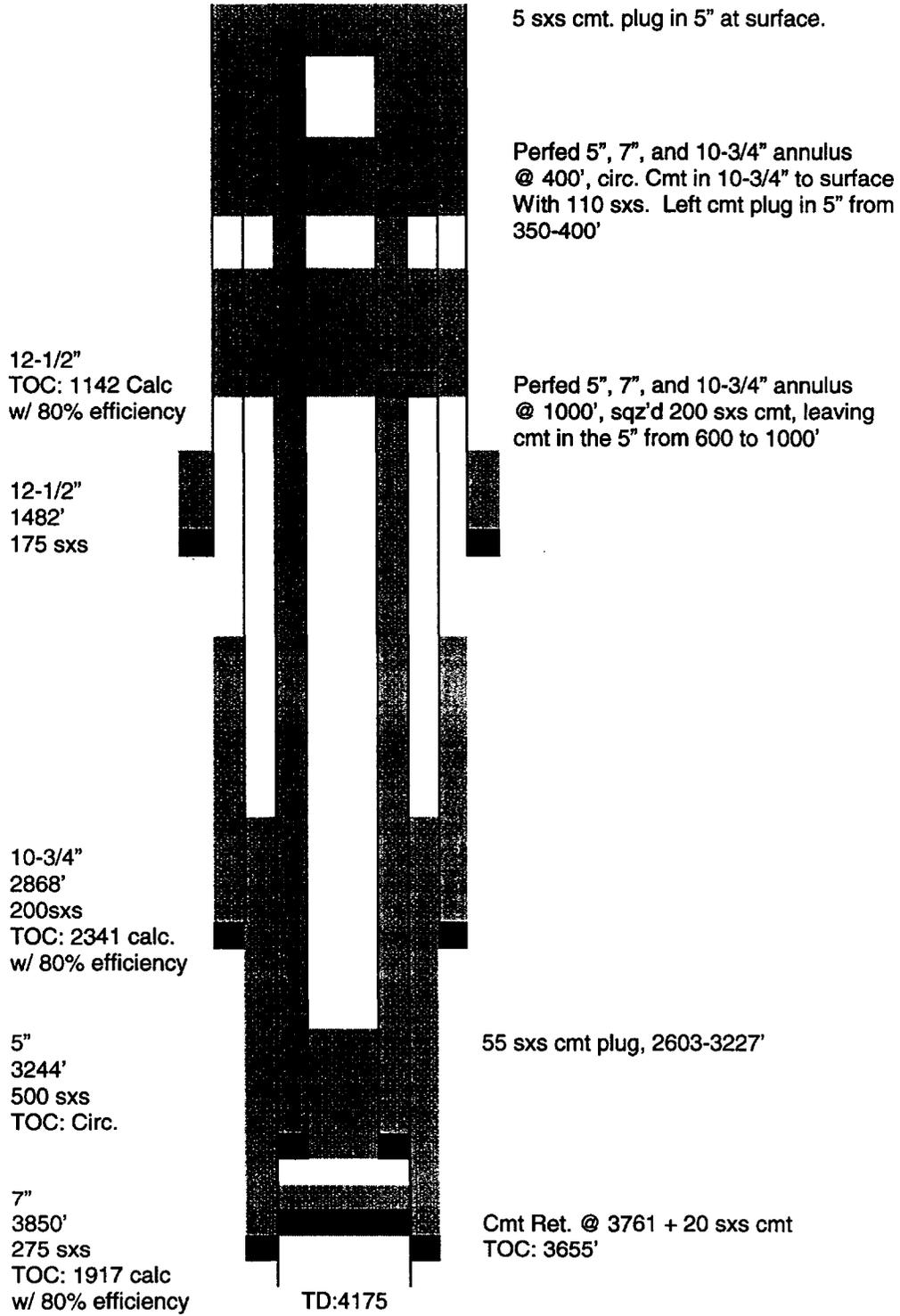
**WELL SCHEMATIC - Saga St Sec 32 #7**

Well plugged 3/25/93



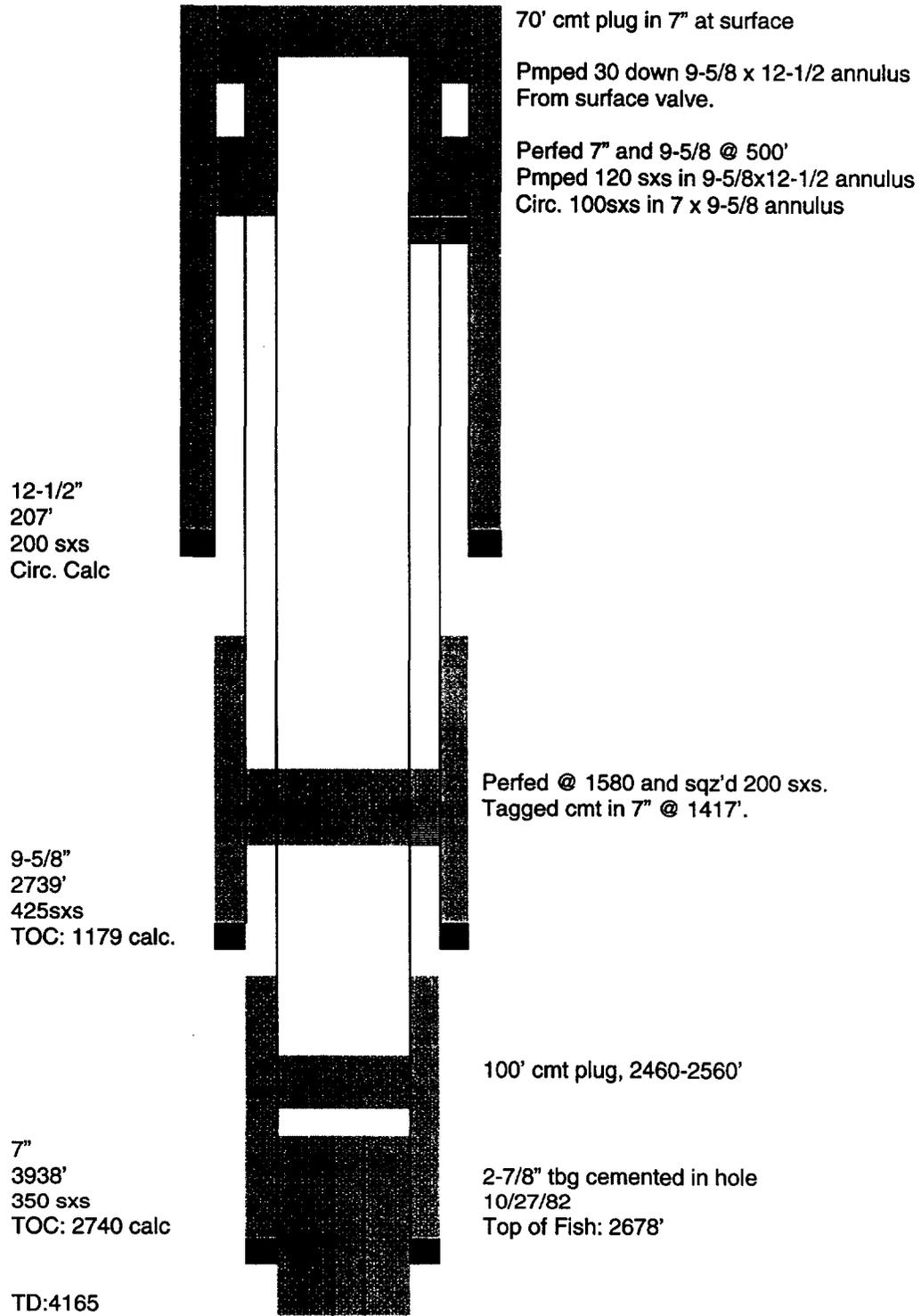
**WELL SCHEMATIC - Marathon St. Sec. 32 #1**

Well plugged 7/21/58



WELL SCHEMATIC - NHU 32-311

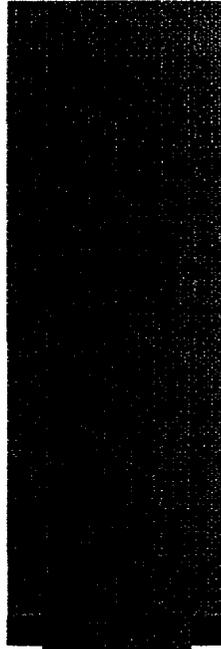
Well plugged 4/19/84



**WELL SCHEMATIC - Chevron WD Grimes NCT-B #6**

Well plugged 12/8/95

9-5/8"  
300'  
225 sxs  
TOC: Circ.



Perfed at 350 and circ. 100 sxs cmt.  
and left 5-1/2 full.

TOC: 550' (TS)



25 sxs cmt plug, 1430-1670'

5-1/2"  
3150'  
775 sxs



CIBP @ 3100' + 15 sxs cmt, TOC @ 2956'

TD:3229

## LIST OF OFFSET OPERATORS & SURFACE OWNERS

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North Hobbs (Grayburg/San Andres) Unit  
Well No. 331  
Letter J, Section 32, T-18-S, R-38-E  
Lea County, New Mexico

### Offset Operators

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

### Surface Owners

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Grimes Land Company, LTD  
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:

Grimes Land Company, LTD  
P.O. Box 5102  
Hobbs, NM 88241

4a. Article Number

P 447 842 590

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

Thank you for using Return Receipt Service.

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

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

of 1 weeks.

Beginning with the issue dated

April 13 1998

and ending with the issue dated

April 13 1998



Publisher

Sworn and subscribed to before

me this 13th day of

April 1998



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.

**LEGAL NOTICE**  
**April 13, 1998**

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 Andres  
Lease/Unit Name: North Hobbs G/SA Unit  
Well No. 331  
Location: 2310' FSL & 2310' FEL, Unit Letter J, Sec. 32, T-18-S, R-38-E, Lea Co., NM  
Well No. 142  
Location: 1250' FSL & 185' FWL, Unit Letter M, Sec. 33, T-18-S, R-38-E, Lea Co., NM  
The injection formation is the Hobbs; Grayburg - San Andres Pool between the intervals of +/- 3700' and +/- 5300' below the surface of the ground. Expected maximum injection 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.  
#15867

02101173000      01519805  
Altura Energy LTD  
P. O. Box 4294  
a/c# 003015  
Houston, TX 77210-4294



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

5/18/98

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   X   \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Altura Energy Ltd N Hobbs GB/SA Unit # 331-J-32-18s-38e  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Recommend approval.

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Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1

/ed



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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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- NSP \_\_\_\_\_
- SWD \_\_\_\_\_
- WFX \_\_\_\_\_
- PMX   X   \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Altura Energy Ltd N Hobbs GB/SA Unit # 142-M-33-185-38e  
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Recommend approval

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Yours very truly,

Chris Williams  
Supervisor, District 1

/ed

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Artec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

Form C-102  
 Revised February 21, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-28411	<sup>2</sup> Pool Code 31920	<sup>3</sup> Pool Name HOBBS; GRAYBURG - SAN ANDRES
<sup>4</sup> Property Code 19520	<sup>5</sup> Property Name NORTH HOBBS (GRAYBURG-SAN ANDRES) UNIT	
<sup>7</sup> OGRID No. 157984	<sup>8</sup> Operator Name ALTURA ENERGY LTD.	<sup>6</sup> Well Number 142
<sup>9</sup> Elevation 3635.00'		

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
M	33	18S	38E		1250'	SOUTH	185'	WEST	LEA

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup> <p>185'</p> <p>Well No. 142 ALTURA</p> <p>1250'</p>	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Mark Stephens</i> Signature Mark Stephens Printed Name Business Analyst (SG) Title April 30, 1998 Date		
	<sup>18</sup> SURVEYOR CERTIFICATION 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.  JANUARY 15, 1998 Date of Survey Signature and Seal of Professional Surveyor  <i>Larry A. Fisher</i> LARRY A. FISHER Certificate Number 11013		

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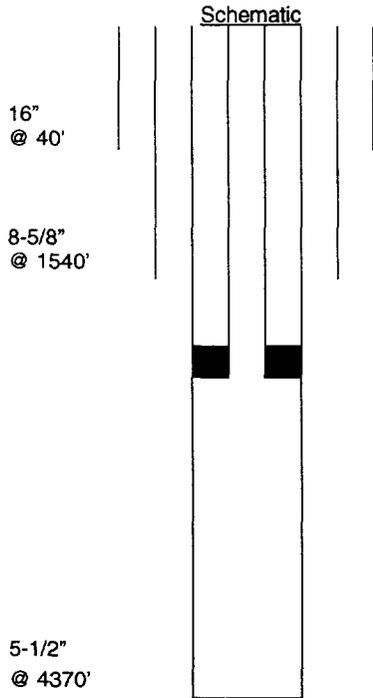
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# INJECTION WELL DATA SHEET

Operator <b>Altura Energy LTD.</b>		Lease <b>North Hobbs G/SA Unit</b>			County <b>Lea</b>
Well No. <b>33-142</b>	Footage Location <b>1250' FSL &amp; 185' FWL</b>	Section <b>33</b>	Township <b>18-S</b>	Range <b>38-E</b>	Unit Letter <b>M</b>



<u>Surface Casing</u>		<u>Tubular Data</u>	
Size	<u>16"</u>	Cemented with	_____ sxs.
TOC	<u>Circ.</u>	Determined by	_____
Hole size	<u>20"</u>		
<u>Intermediate Casing</u>			
Size	<u>8-5/8"</u>	Cemented with	<u>750</u> sxs.
TOC	<u>Circ.</u>	Determined by	_____
Hole size	<u>12-1/4"</u>		
<u>Long string Casing</u>			
Size	<u>5-1/2"</u>	Cemented with	<u>910</u> sxs.
TOC	<u>340'</u>	Determined by	<u>CBL</u>
Hole size	<u>7-7/8"</u>		
Total depth	<u>4370'</u>		
<u>Injection interval</u>			
	<u>4029</u>	feet to	<u>4370</u> feet
<u>Completion type</u>		<u>Perforations</u>	

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a  
Guiberson Uni VI packer at 4000' feet  
 (brand and model)

Other Data

1. Name of the injection formation San Andres
2. Name of field or Pool Hobbs (Grayburg/San Andres)
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)  
No
5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.  
Grayburg - 3720, Glorieta - 5300

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

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