

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT

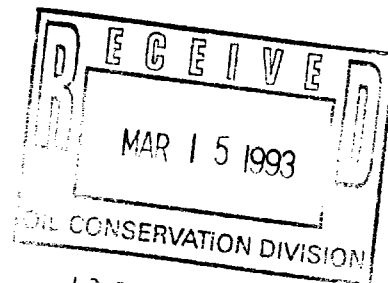
JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

March 15, 1993

HAND-DELIVERED

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503



Re: Application of Yates Petroleum Corporation for Approval of a Waterflood
Project and Quantification for the Recovered Oil Tax Rate, Eddy County,
New Mexico

Dear Mr. LeMay:

Enclosed is an original and one copy of completed Oil Conservation Division Form C-108 which is the application of Yates Petroleum Corporation in the above-referenced matter. Also enclosed is a draft of a legal advertisement for this case.

Yates Petroleum Corporation requests that this case be set for hearing before a Division Examiner on April 8, 1993.

We have provided a copy of this application to the Oil Conservation Division's District Office in Artesia, New Mexico.

Your attention to this matter is appreciated.

Very truly yours,

WILLIAM F. CARR

WFC:mlh

Enclosures

cc w/enc.: Ms Theresa Sloan
Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Snyder Ranch LTD
Post Office Box 2158
Hobbs, NM 88240

"Certified Mail-Return Receipt Requested"

Arrowhead Oil Corporation
Box 548
Artesia, NM 88210

"Certified Mail-Return Receipt Requested"

Manzano Oil Corporation
Post Office Box 2107
Roswell, NM 88202

"Certified Mail-Return Receipt Requested"

Kersey & Company
808 W Grand
Artesia, NM 88210

"Certified Mail-Return Receipt Requested"

Bureau of Land Management
Post Office Box 1397
Roswell, NM 88202

"Certified Mail-Return Receipt Requested"

Hanson Operating
Post Office Box 1515
Roswell, NM 88202-1515

"Certified Mail-Return Receipt Requested"

Texaco Inc.
Post Office Box 2100
Denver, CO 80237

"Certified Mail-Return Receipt Requested"

Case 10711

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Yates Petroleum Corporation
Address: 105 South 4th Street Artesia, NM 88210
Contact party: Theresa Sloan Phone: (505) 748-1471
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Theresa Sloan Title: Petroleum Engineer
Signature: Theresa Sloan Date: 3/9/93
- * 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.

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.

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

**Creek AL #6
D 25-18S-30E**

**Creek AL #7
M 24-18S-30E**

**Creek AL #9
E 25-18S-30E**

- I. The purpose of this application is to request authorization to inject into the Shugart Penrose and Middle Grayburg Formations in the three above mentioned wells for the purpose of secondary recovery on Yates' Creek Al lease.

Yates Petroleum plans to do the following. (See Exhibit 2)

1. Deepen Creek AL #3, #5, #7 to include Middle Grayburg zone
2. Convert Creek AL #6, #7, #9 to injectors
3. Convert Creek AL #3, #5, #8 to producers
4. Re-enter Creek AL #10 and complete as producer
5. Drill Creek AL #12, #13, #14 and complete as producers

Creek AL #12
D 25-18S-30E
1155' FNL & 330' FWL

Creek AL #13
E 25-18S-30E
2310' FNL & 330' FWL

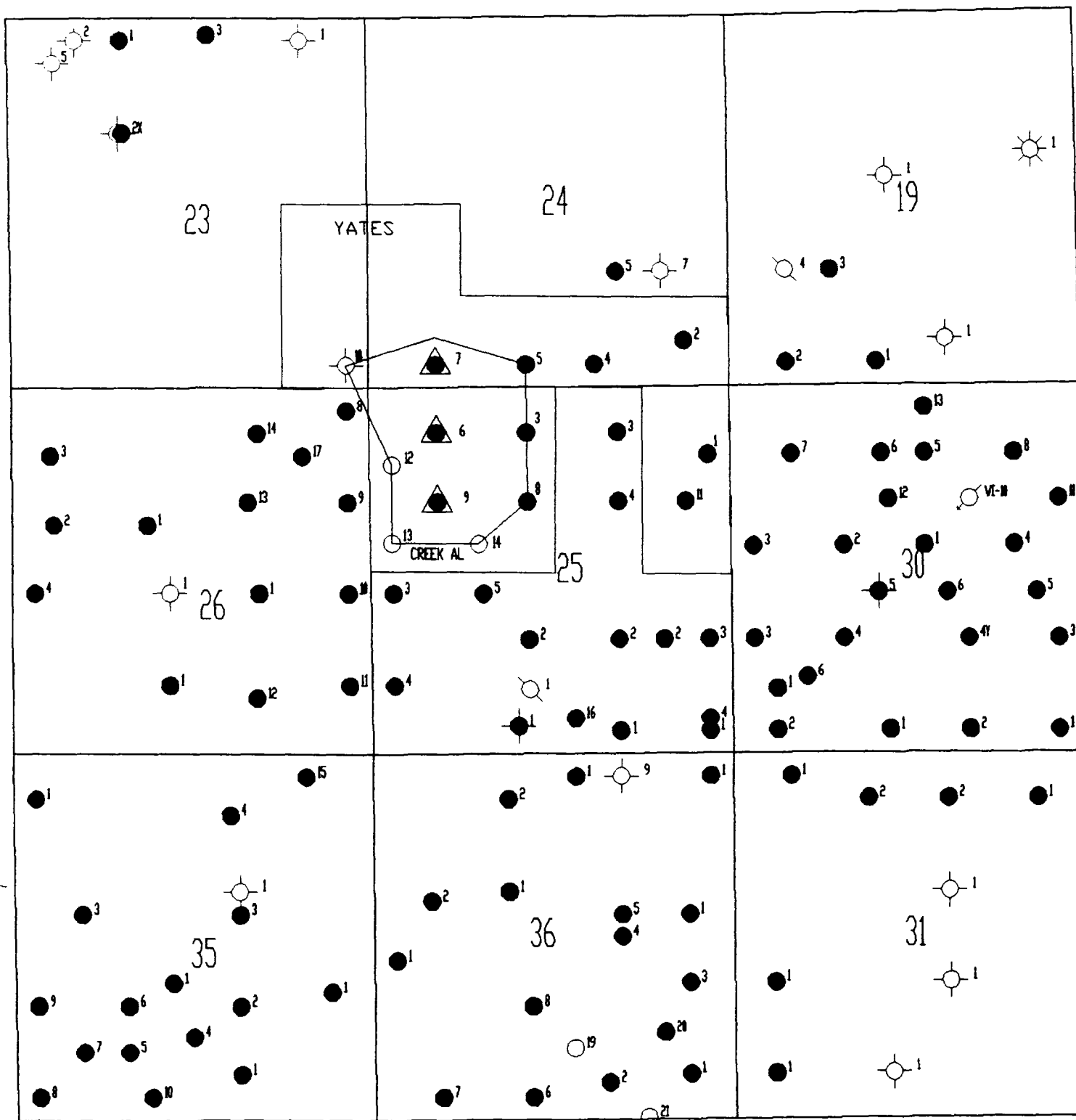
Creek AL #14
F 25-18S-30E
2310' FNL & 1650'FWL

- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Theresa Sloan (505) 748-1471
- III. Well Data: See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached maps, Attachment B
- VI. See Attachment C
- VII. 1. Proposed average daily injection volumes approximately 600 BWPD per injection well.
Maximum daily injection volumes approximately 1000 BWPD per injection well.
2. This will be a closed system.
3. A step rate test will be run in the Penrose & Middle Grayburg formations.
Proposed average injection pressure - 1600 psi
Proposed maximum injection pressure - 2000 psi

C-108

Application for Authorization To Inject
Creek AL #6, #7, #9

4. Sources of injected water will be Ogallala aquifer waters and produced Shugart Penrose - Grayburg waters. The water analyses are attached. (Attachment D)
 5. Not applicable
- VIII.
1. The proposed injection intervals consist of the Penrose and Middle Grayburg sands. The Penrose sands can be found at an average depth of 3215 - 3290, with the Middle Grayburg sands at an average depth of 3490 - 3590.
 2. Fresh water zones overlie the Penrose - Middle Grayburg formations at depths to approximately 275 ft. These water zones are located in the Triassic Redbeds.
- IX. The proposed disposal intervals will be acidized and/or proppant fractured if necessary.
- X. Logs were filed at your office when the wells were drilled and completed. The logs on the Creek AL #12, #13, #14 will be filed after these wells are drilled.
- XI. One water well was located within the one-mile radii of the injection wells, as per the State Engineer's office. (Attachment E - area map)
The water analysis on this well is attached. (Attachment F - Snyder Ranch water well)
- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed intervals.
- XIII. Proof of Notice
- A. Certified letters sent to the surface owner and offset operators are attached. (Attachment G)
 - B. Copy of legal advertisement attached. (Attachment H)
- XIV. Certification is signed.



▲ INJECTION WELL



EXHIBIT 2

PROPOSED INJECTION PATTERN

SEC. 23,24,25 T18S - R30E
EDDY COUNTY, NEW MEXICO

DRAFT\93007

2/23/93

SCALE : 1"=2000'

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

ATTACHMENT F

LABORATORY REPORT

No. W73, W74, & W75-93

TO Ms. Theresa Padilla

Date February 18, 1993

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

This report is the property of Halliburton Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services

Submitted by _____ Date Rec. February 17, 1993

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

	<u>Double Eagle</u>	<u>Creek AL</u>	<u>Schneider Ranch</u>
Resistivity	<u>2.4 @ 70°</u>	<u>0.072 @ 70°</u>	<u>1.77 @ 70°</u>
Specific Gravity ..	<u>1.0026 @ 70°</u>	<u>1.0871 @ 70°</u>	<u>1.0029 @ 70°</u>
pH	<u>7.5</u>	<u>8.0</u>	<u>7.5</u>
Calcium	<u>2,429</u>	<u>4,303</u>	<u>1,666</u>
Magnesium	<u>210</u>	<u>2,400</u>	<u>674</u>
Chlorides	<u>1,600</u>	<u>75,000</u>	<u>2,000</u>
Sulfates	<u>400</u>	<u>600</u>	<u>600</u>
Bicarbonates	<u>305</u>	<u>274</u>	<u>274</u>
Soluble Iron	<u>0</u>	<u>0</u>	<u>0</u>
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Remarks:


Respectfully submitted

Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

NOTICE:

This report is for information only and the content is limited to the sample described. Halliburton makes no warranties, express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage, regardless of cause, including any act or omission of Halliburton, resulting from the use hereof

ATTACHMENT G

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



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

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

February 26, 1993

CERTIFIED RETURN RECIEPT

Synder Ranch LTD
P.O. Box 2158
Hobbs, NM 88240

Gentlemen:

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

Creek AL #6 D 25-18S-30E
Creek AL #7 M 24-18S-30E
Creek AL #9 E 25-18S-30E

Yates plans to waterflood Creek AL lease via these wells.

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

Sincerley,

Theresa Sloan
Petroleum Engineer

TS/mjw

Enclosure

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February 26, 1993

CERTIFIED RETURN RECIEPT

Arrowhead Oil Corporation
Box 548
Artesia, NM 88210

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February 26, 1993

CERTIFIED RETURN RECIEPT

Manzano Oil Corporation
P.O. Box 2107
Roswell, NM 88202

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DENNIS G. KINSEY
TREASURER

February 26, 1993

CERTIFIED RETURN RECIEPT

Kersey & Company
808 W Grand
Artesia, NM 88210

Gentlemen:

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TREASURER

February 26, 1993

CERTIFIED RETURN RECIEPT

Bureau of Land Management
P.O. Box 1397
Roswell, NM 88202

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February 26, 1993

CERTIFIED RETURN RECIEPT

Hanson Operating
P.O. Box 1515
Roswell, NM 88202-1515

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February 26, 1993

CERTIFIED RETURN RECIEPT

Texaco Inc.
P.O. Box 2100
Denver, CO 80237

Gentlemen:

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Creek AL #9 E 25-18S-30E

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Sincerley,

Theresa Sloan
Petroleum Engineer

TS/mjw

Enclosure

Attachment H
(Page 1)

Legal Notice

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for three injection wells. The proposed wells,

1 - Creek AL #6	D 25-18S-30E	660' FNL & 990' FWL
2 - Creek AL #7	M 24-18S-30E	330' FSL & 990' FWL
3 - Creek AL #9	E 25-18S-30E	1650' FNL & 990' FWL

Eddy County, New Mexico, will be used for injection in a waterflood. Fresh aquifer water from the Ogallala will be injected into the Shugart Penrose - Middle Grayburg formations at average depths between 3215 - 3290 and 3490 - 3590 respectively. The maximum injection pressure and injection rate is 2000 psi and 1000 BWPD per well.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501, within 15 days. Additional information can be obtained by contacting Theresa Sloan at (505) 748-1471.

Affidavit of Publication

No. 14234

STATE OF NEW MEXICO,

County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 consecutive weeks on the same day as follows:

First Publication February 26, 1993

Second Publication _____

Third Publication _____

Fourth Publication _____

Gary D. Scott

Subscribed and sworn to before me this 26th day

of February 19 93

Betty Neel
Notary Public, Eddy County, New Mexico

My Commission expires February 28, 1993

Copy of Publication

LEGAL NOTICE

VATES PETROLEUM CORPORATION, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for three injection wells. The proposed wells, 1-Creek AL#6, D 25-18S-30E, 660' FNL & 990' FWL; 2-Creek AL#7, M 24-18S-30E, 330' FSL & 990' FWL; 3-Creek AL#9, E 25-18S-30E, 1650' FNL & 990' FWL, all in Eddy County, New Mexico, will be used for injection in a waterflood. Fresh aquifer water from the Ogallala will be injected into the Sangre Penrose Middle Grayburg formations at average depths between 3215-3290 and 3490-3590 respectively. The maximum injection pressure and injection rate is 2000 psi and 1000 BWPD per well. All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501, within 15 days. Additional information can be obtained by contacting Theresa Sloan at (505) 748-1471. Published in the Artesia Daily Press, Artesia, N.M. February 26, 1993. Legal 14234

Creek AL Lease
Well Data
Shugart Yates - Seven Rivers - Queen - Grayburg Field
Development - Oil Wells

Lease Name Location	Casing Strings, Tubing, Packer, Well Work	Injection Formation	Injection Interval (perfs)	1-Next higher (shallower) oil/gas zone 2-Next lower (deeper) oil/gas zone
Creek AL #6 D 25-18S-30E 660'FNL & 990'FWL	Present 8-5/8" 24# J-55 @ 719' w/200 sx (circ) 5-1/2" 14# J-55 @ 3286' w/500 sx (TOC - 600'TS) 2-3/8" tubing TD - 3578' (OH 3286-3578)	Penrose	* 3172-3178 * 3184-3190 * 3232-3240	1 - Yates, Seven Rivers, Queen 2 - None
		Middle Grayburg	3440-3450 3508-3514 3528-3538	
Creek AL #7 M 24-18S-30E 330'FSL & 990'FWL	Present 8-5/8" 24# @ 729' w/200 sx (circ) 5-1/2" 14# & 15.5 #J-55 @ 3286' w/500 sx (circ) 2-3/8" tubing TD - 3314' PBSD - 3306'	Penrose	* 3189-3196 * 3204-3210 * 3252-3258	1 - Yates, Seven Rivers, Queen 2 - None
		Middle Grayburg	3456-3468 3524-3532 3544-3554	
Creek AL #9 E 25-18S-30E 1650'FNL & 990'FWL	Present 8-5/8" 20# @ 712' w/200 sx (circ) 5-1/2" 14# @ 3316' w/600 sx (circ) 2-3/8" tubing TD - 3594' PBSD - 3568' (OH 3316 - 3594)	Penrose	* 3150-3157 * 3164-3170 * 3212-3221	1 - Yates, Seven Rivers, Queen 2 - None
		Middle Grayburg	3424-3432 3494-3506 3516-3526	

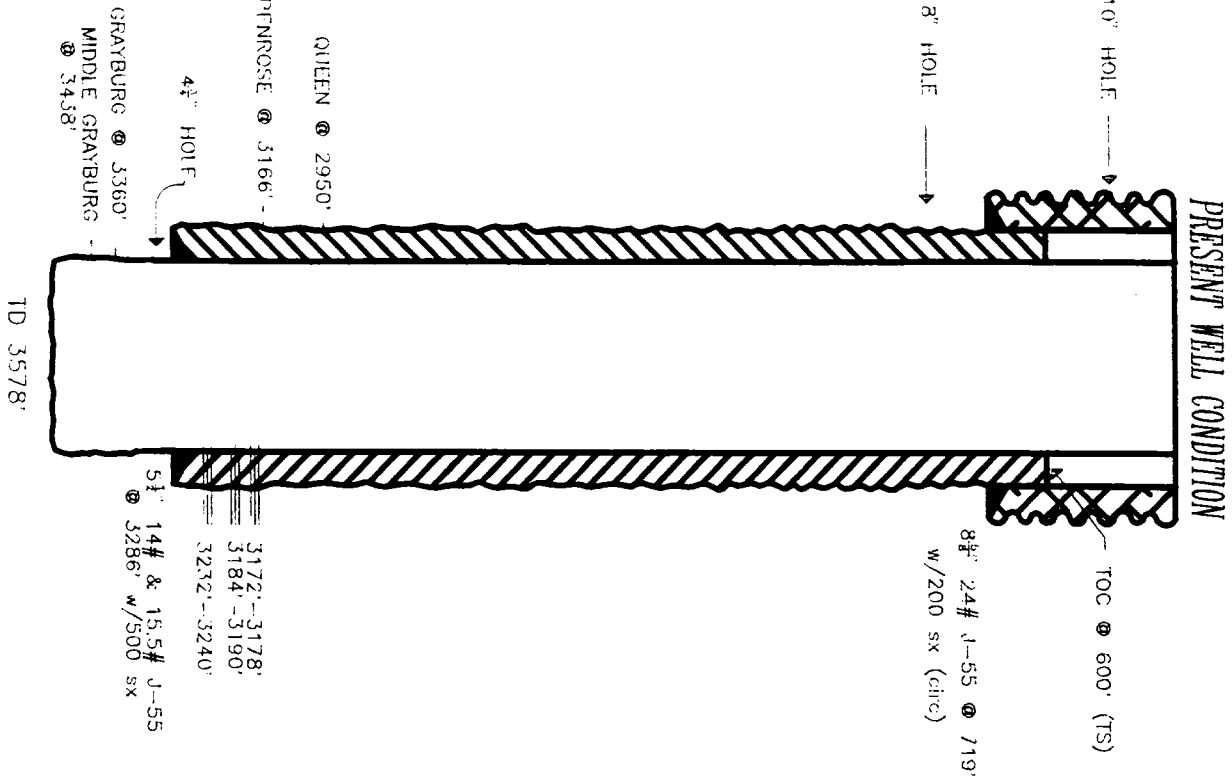
Proposed

Squeeze Queen perforations (2944-2955)
Underream to 6-3/4" hole
4-1/2" 11.6# J-55 flush joint liner, cement to top of liner @ 3050'
2-3/8" plastic coated tubing, 4-1/2" p.c. or nickel plated packers
Baker side-pocket mandrel with down hole flow regulators
Baker packers Model AR-1 & R set at 3100' & 3375'

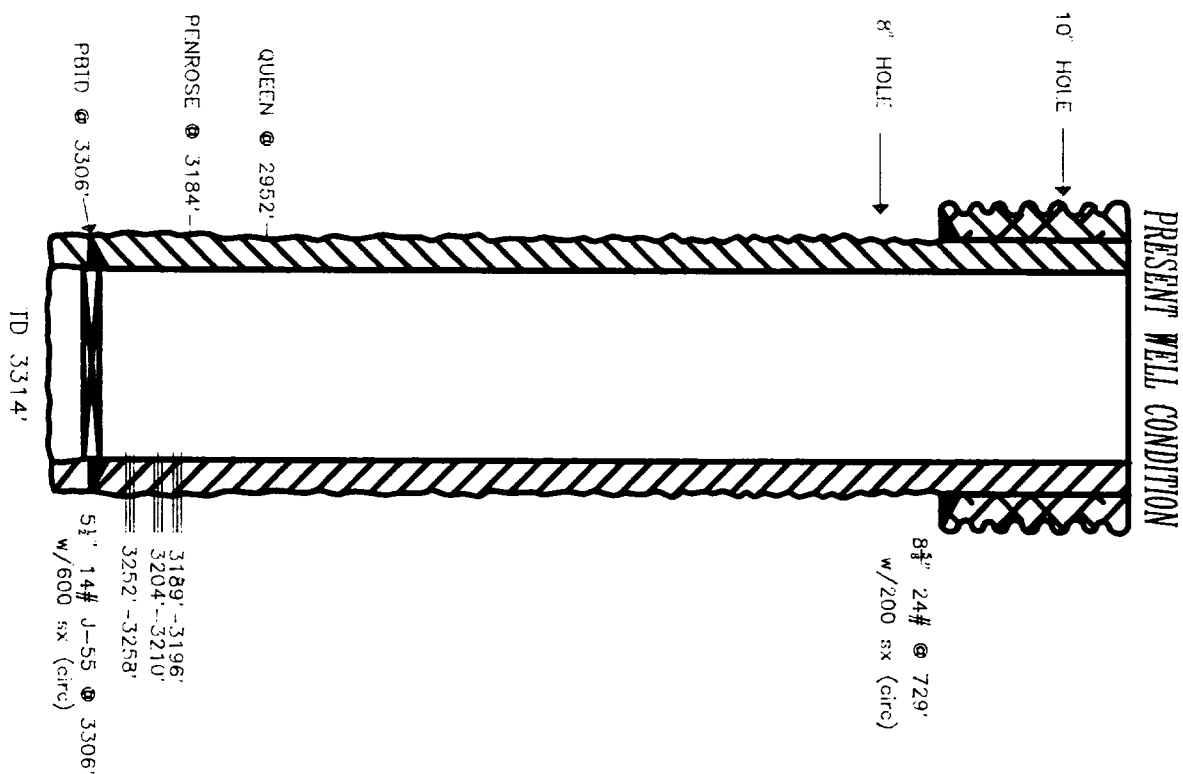
Proposed

Deepen to 3614'
Underream to 6-3/4" hole
4-1/2" 11.6# J-55 flush joint liner, cement to top of liner @ 3090'
2-3/8" plastic coated tubing, 4-1/2" p.c. or nickel plated packers
Baker side-pocket mandrel with down hole flow regulators
Baker Packers Model AR-1 & R set at 3140' & 3400'

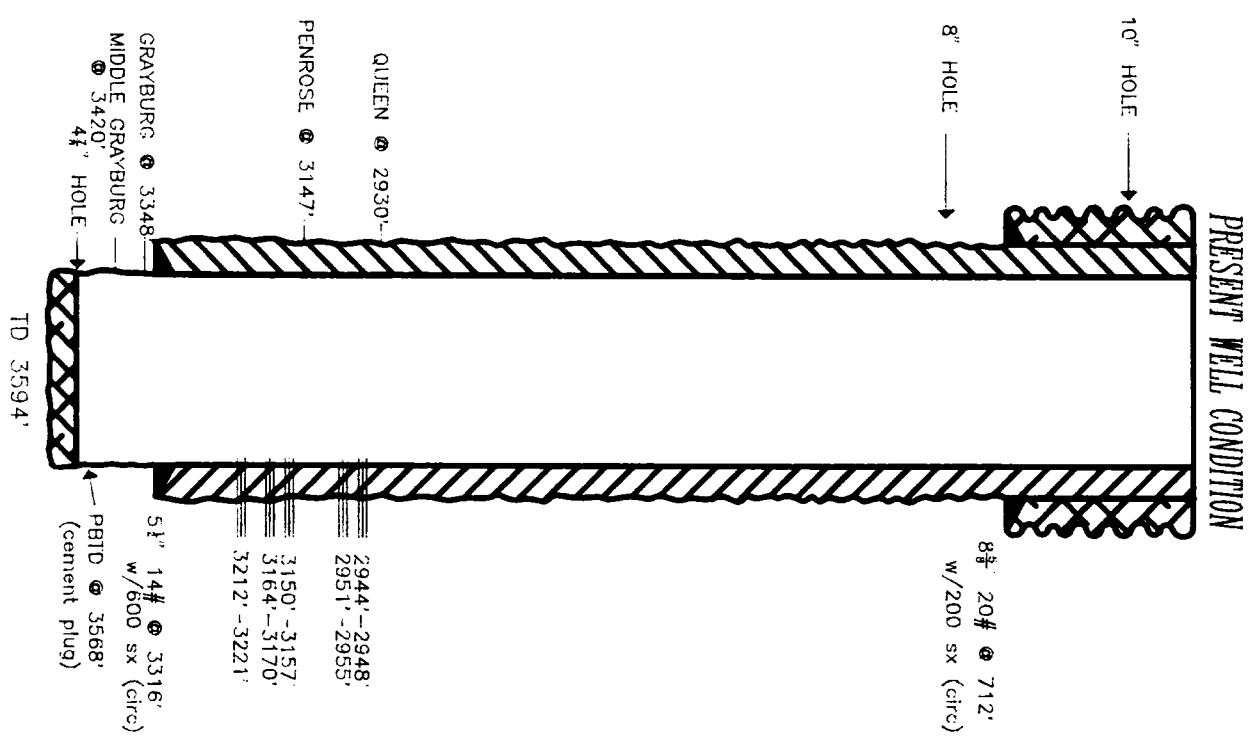
CREEK AL #6
D 25-1BS-30E
660' FNL & 990' FWL



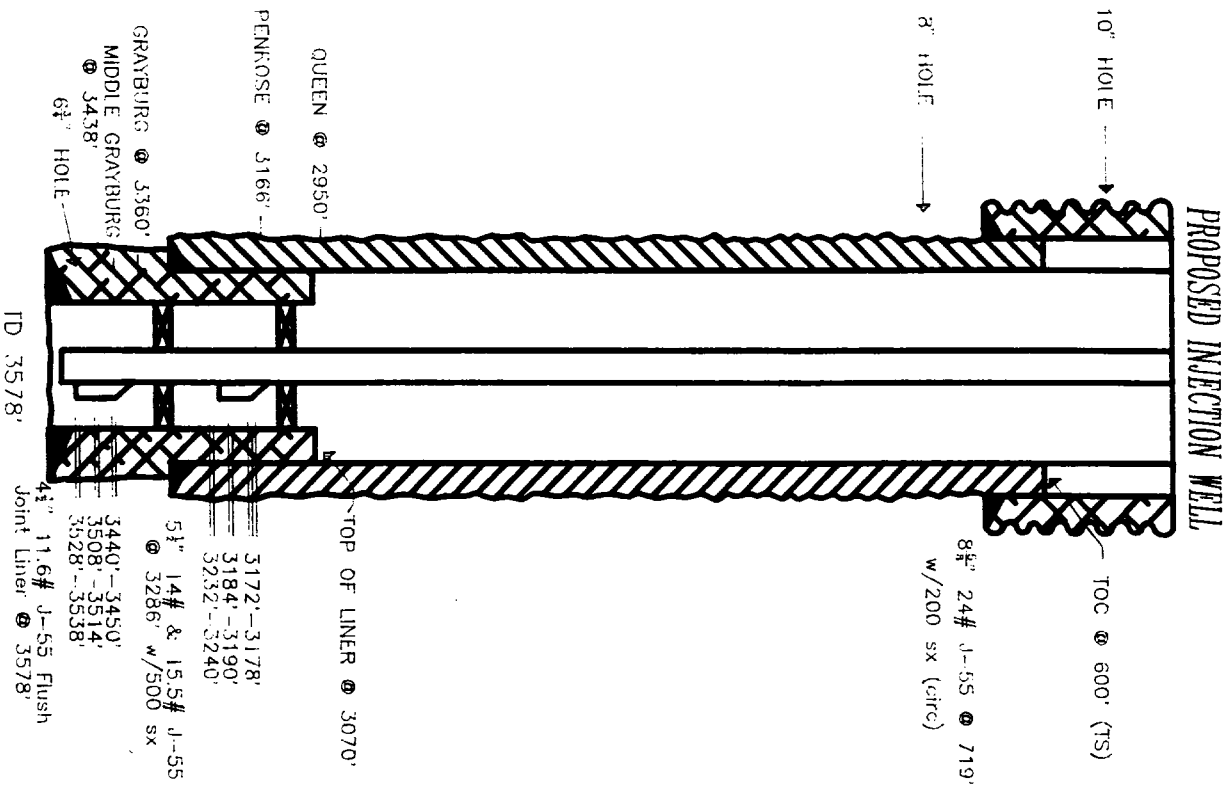
CREEK AL #7
M 24-1BS-30E
330' FSL & 990' FWL



CREEK AL #9
E 25-1BS-30E
1650' FNL & 990' FWL

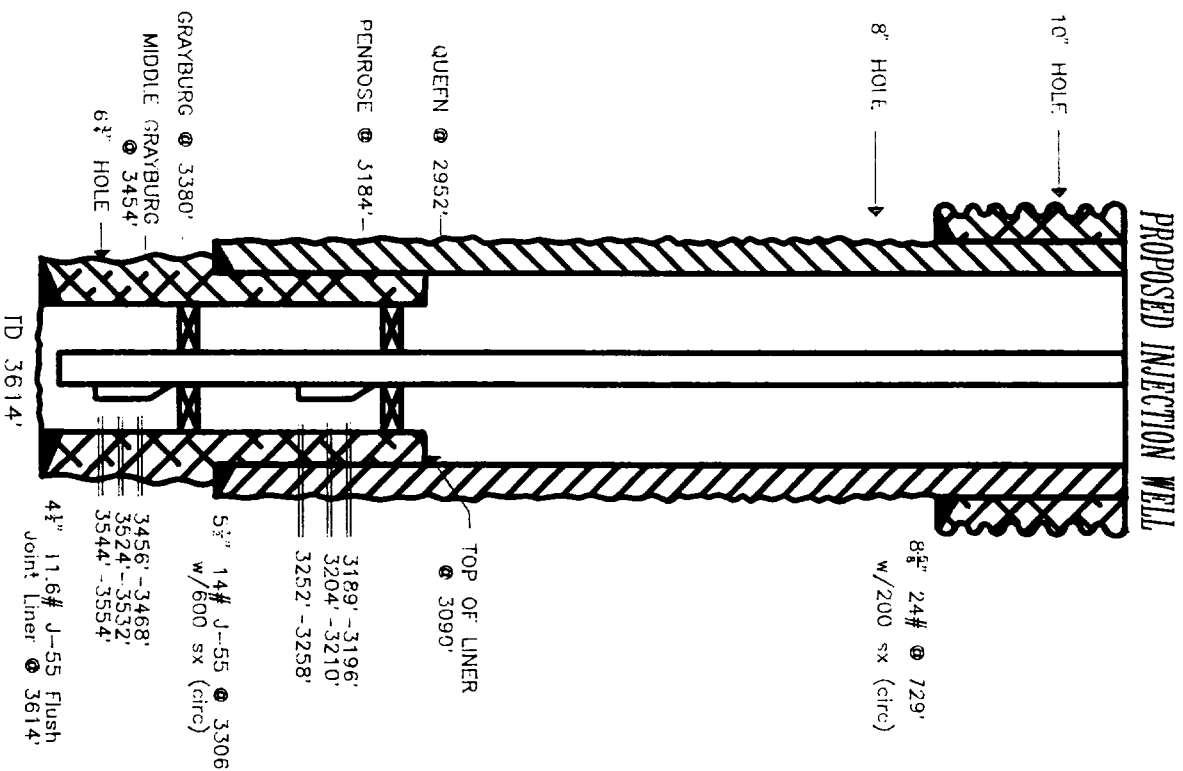


CULLEN AL #6
D 25-18S-30E
660' FNL & 990' FWL



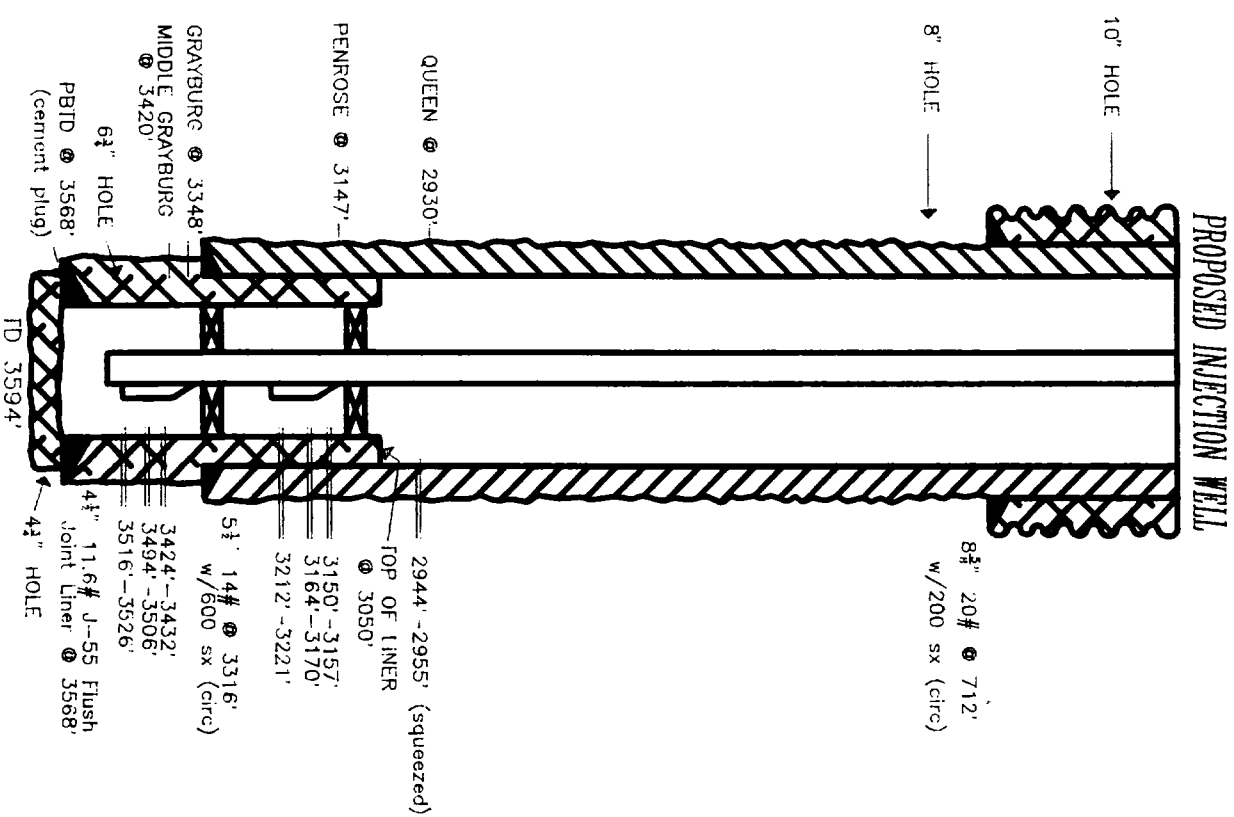
Underream to 6 3/4" hole. Run 4 1/2" 11.6# J-55 Flush Joint Liner, cementing to top of liner. Run 2 3/4" plastic-coated tubing, 4 1/2" plastic-coated or nickel-plated packers, side pocket mandrels with down hole flow regulators. Propose to inject into Penrose and Middle Grayburg zones with Ogallala aquifer waters.

CREEK AL #7
M 24-18S-30E
330' FSL & 990' FWL

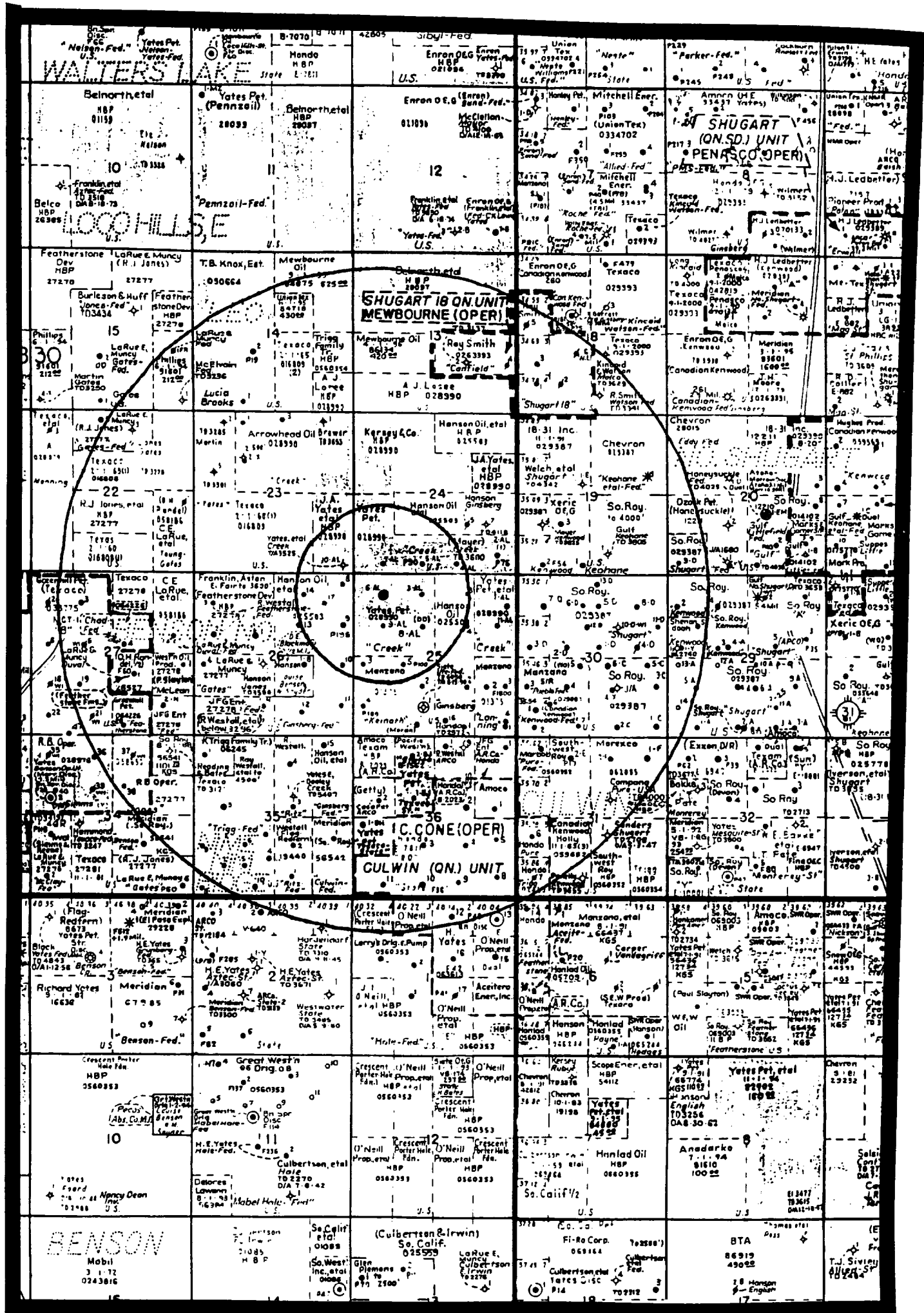


Deepen well to ± 3614'. Underream to 6 3/4" hole. Run 4 1/2" 11.6# J-55 Flush Joint Liner, cementing to top of liner. Run 2 3/4" plastic-coated tubing, 4 1/2" plastic-coated or nickel-plated packers, side pocket mandrels with down hole flow regulators. Propose to inject into Penrose and Middle Grayburg zones with Ogallala aquifer waters.

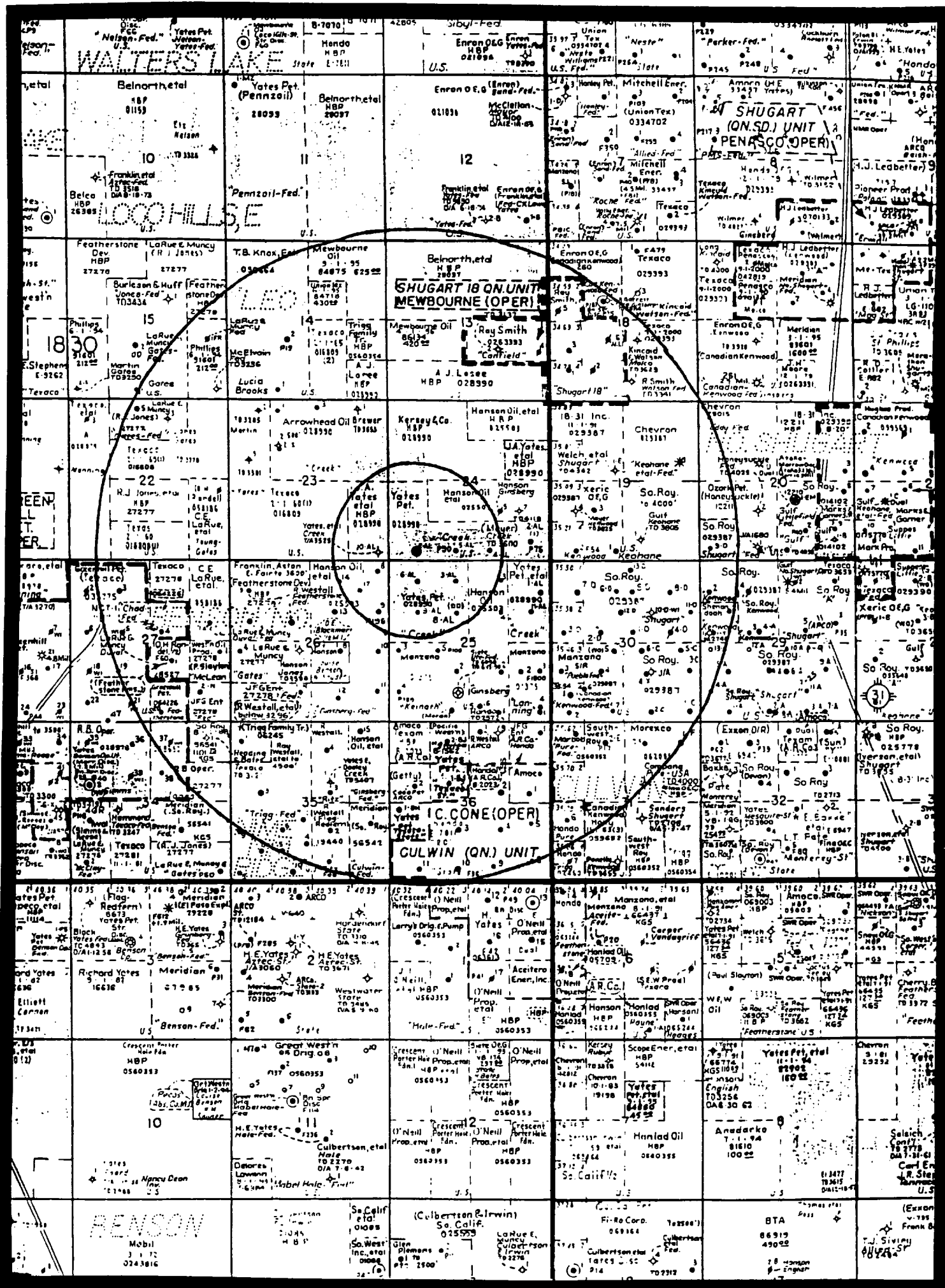
CREEK AL #9
E 25-18S-30E
1650' FNL & 990' FWL



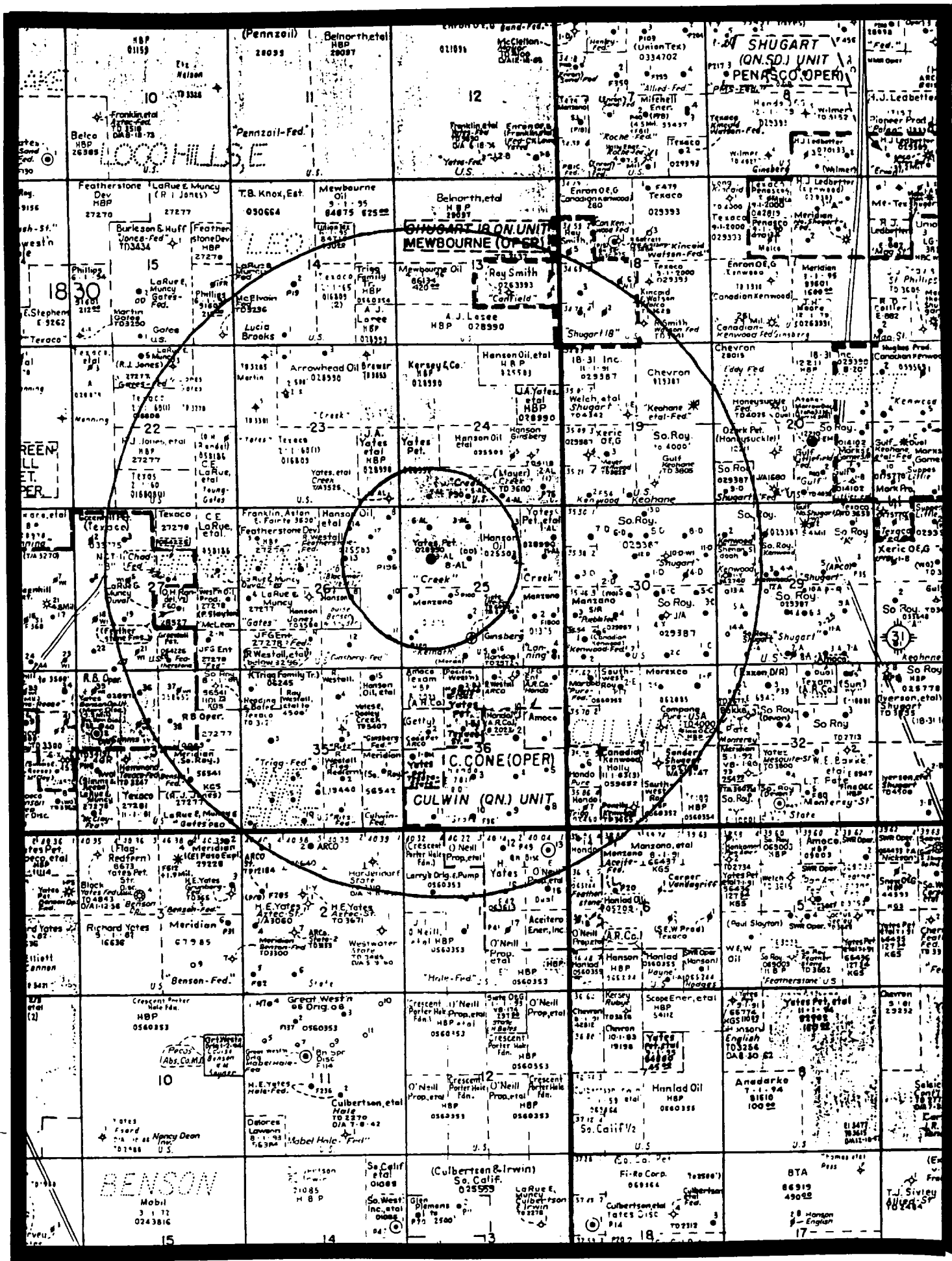
Underream to 6 3/4" hole. Run 4 1/2" 11.6# J-55 Flush Joint Liner, cementing to top of liner. Run 2 3/4" plastic-coated tubing, 4 1/2" plastic-coated or nickel-plated packers, side pocket mandrels with down hole flow regulators. Propose to inject into Penrose and Middle Grayburg zones with Ogallala aquifer waters.



Yates Petroleum Corporation
Proposed Injection Well
Creek AL #6
D Sec. 25-T18S-R30E
660'FNL & 990'FWL
Eddy County, New Mexico
ATTACHMENT B
Page 1



Yates Petroleum Corporation
Proposed Injection Well
Creek AL #7
M Sec. 24-T18S-R30E
330'FSL & 990'FWL
Eddy County, New Mexico
ATTACHMENT B
Page 2



Yates Petroleum Corporation
Proposed Injection Well
Creek AL #9
E Sec. 25-T18S-R30E
1650'FNL & 990'FWL
Eddy County, New Mexico
ATTACHMENT B
Page 3

Yates Petroleum Corporation
Shugart Waterflood
Well Data Information
Attachment "C"
Page 1

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Creek AL #1 A 25-18S-30E 990'FNL & 330'FEL	YPC	Oil	11/63	1/64	3789	Penrose	3383-3456	8-5/8" 24# J-55 @ 777' w/50 sx 5-1/2" 14# J-55 @ 3544' w/100 sx (TOC - 3050' TS) 2-3/8" Tubing	PRTD - 3501'
Creek AL #2 P 24-18S-30E 660'FSL & 660'FEL	Len Mayer YPC	Oil	5/61 3/64	8/61 3/64	3602 3602	----- Penrose	----- 3417-3435	8-5/8" 24# @ 748' w/50 sx 4-1/2" 9.5# J-55 @ 3540' w/325 sx (TOC - 1814' calc) 2-3/8" Tubing	D&A OWWO
Creek AL #3 C 25-18S-30E 660'FNL & 2310'FWL	YPC	Oil	7/69	8/69	3426	Penrose	3302-3376	8-5/8" 29# @ 770' w/100 sx 5-1/2" 14# J-55 @ 3426' w/200 sx (TOC - 2785' calc) 2-3/8" Tubing	
Creek AL #4 O 24-18S-30E 330'FSL & 1980'FEL	YPC	Oil	8/69	10/69	3485	Penrose	3338-3384	8-5/8" 24# J-55 @ 780' w/100 sx 5-1/2" 15# J-55 @ 3476' w/150 sx (TOC - 2995' calc) 2-3/8" Tubing	
Creek AL #5 N 24-18S-30E 330'FSL & 2310'FWL	YPC	Oil	10/69	12/69	3422	Penrose	3292-3364	8-5/8" 24# @ 782' w/100 sx 5-1/2 15.5# J-55 @ 3422' w/150 sx (TOC - 2941' calc) 2-3/8" Tubing	
Creek AL #6 D 25-18S-30E 660'FNL & 990'FWL	YPC	Oil	12/69 12/70	2/70 12/70	3286 3578	Penrose Middle Grayburg	3172-3240 3438 - TD (open hole)	8-5/8" 24# J-55 @ 719' w/200 sx 5-1/2" 14# & 15.5# J-55 @ 3286' w/500 sx (TOC - 600' TS) 2-3/8" Tubing	Deepen (12/70)
Creek AL #7 M 24-18S-30E 330'FSL & 990'FWL	YPC	Oil	2/70	4/70	3314	Penrose	3189-3258	8-5/8" 24# @ 729' w/200 sx 5-1/2" 14# J-55 @ 3306' w/600 sx (circ) 2-3/8" Tubing	
Creek AL #8 F 25-18S-30E 1650'FNL & 2310'FWL	YPC	Oil	4/70 7/72	6/70 8/72	3416 3705	Penrose Middle Grayburg	3305-3378 3580 - TD (open hole)	8-5/8" 20# @ 773' w/100 sx 5-1/2" 14# J-55 @ 3416' w/200 sx (TOC - 2782' calc) 2-3/8" Tubing	Deepen (7/72)
Creek AL #9 E 25-18S-30E 1650'FNL & 990'FWL	YPC	Oil	6/70	9/70	3594	Queen Penrose Middle Grayburg	2944-2955 3150-3221 3420-3568 (open hole)	8-5/8" 20# @ 712' w/200 sx 5-1/2" 14# @ 3316' w/600 sx (circ) 2-3/8" Tubing	PRTD @ 3568'
Creek AL #10 P 23-18S-30E 330'FSL & 330'FEL	YPC	Oil	11/72	-----	3519	-----	-----	10-3/4" 30# J-55 @ 732' w/250 sx 8-5/8" 24# J-55 @ 1750' w/250 sx	TA
Creek AL #11 H 25-18S-30E 1650'FNL & 660'FEL	YPC	Oil	8/72	12/72	3728	Penrose Middle Grayburg	3351-1/2 -3538 3621-1/2 -3626	8-5/8" 24# J-55 @ 735' w/100 sx 5-1/2" 15.5# J-55 @ 3728' w/150 sx (TOC @ 3252' - calc) 2-3/8" Tubing	

Yates Petroleum Corporation
Shugart Waterflood
Well Data Information
Attachment "C"
Page 2

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
YPC - Wells to be drilled									
Creek AL #12 D 25-18S-30E 1155' FNL & 330' FWL	YPC	Oil		3600		Penrose Middle Grayburg	3160-3230 3430-3530	8-5/8" 24# @ 720' (circ) 5-1/2" 15.5 # @ 3600' (circ)	
Creek AL #13 E 25-18S-30E 2310' FNL & 330' FWL	YPC	Oil		3600		Penrose Middle Grayburg	3130-3200 3420-3520	8-5/8" 24# @ 720' (circ) 5-1/2" 15.5# @ 3600' (circ)	
Creek AL #14 F 25-18S-30E 2310' FNL & 1650' FWL	YPC	Oil		3625		Penrose Middle Grayburg	3220-3290 3500-3600	8-5/8" 24# @ 720' (circ) 5-1/2" 15.5# @ 3625' (circ)	

Yates Petroleum Corporation
Shugart Waterflood
Well Data Information
Attachment "C"
Page 3

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Ginsberg Federal #3 B 25-18S-30E 660'FNL & 1650'FEL	Hanson	Oil	04/10/69	05/24/69	3473'	Penrose	3464-3486' 3427-3437'	8-5/8" 28# @ 774' w/205 sx 5-1/2" 15.5 # @ 3473' w/260 sx (TOC 2000' calc) 2-3/8" tbg	Cable Tools
Ginsberg Federal #4 G 25-18S-30E 1650' FNL & 1650'FEL	Hanson	Oil	06/16/69	08/08/69	3701'	Queen Penrose Middle Grayburg	3220-3230' 3344-3354' 3398-3404' 3458-3468' 3528-3532' 3610-3616' 3670-3675' 3705-3710'	8-5/8" 28# @ 755' w/255 sx (circ) 5-1/2" 15.5# @ 3716' w/250 sx (TOC 2200' calc) 2-3/8" tbg	Cable Tools CIBP @ 3575'. Queen-Penrose Production only
Ginsberg Federal #17 A 26-18S-30E 990'FNL & 990'FEL	Hanson	Oil	11/13/81	02/12/82	3510'	Yates Seven Rivers Penrose Middle Grayburg	2082-2090' 2158-2168' 2648-2658' 3074-3082' 3120-3128' 3354-3362' 3390-3398'	8-5/8" 24# @ 585' w/300 sx (circ) 5-1/2" 15.5# & 17# @ 3475 w/1700 sx (circ) 2-3/8" tubing	PBTD - 3456'
Ginsberg Federal #14 B 26-18S-30E 660'FNL & 1650' FEL	Hanson	Oil	03/15/72	04/05/72	3495'	Penrose Middle Grayburg	3109-3113' 3314-3318' 3376-3382'	12-3/4" 34# @ 716' w/600 sx (circ) 8-5/8" 24# @ 1730 w/50 sx Pulled 1530' Ran 5-1/2" 15.5 @ 3495' w/1100 sx (circ) 2-3/8" tbg	Rotary
Ginsberg Federal #8 A 26-18S-30E 330'FNL & 330'FEL	Hanson	Oil	10/29/71	11/18/71	3550'	Penrose Middle Grayburg	3187-3191' 3461-3465'	12-3/4" 49# @ 704' w/600 sx (circ) 8-5/8" 24# @ 1748' w/50 sx Pulled 1508' Ran 5-1/2" 15.5# @ 3545' w/1150 sx (1" to surface) 2-3/8" tbg	Rotary
Ginsberg Federal #9 H 26-18S-30E 1650'FNL & 330'FEL	Hanson	Oil	10/14/71	10/31/71	3859'	Penrose Middle Grayburg	3166-3171' 3440-3444'	12-3/4" 49# @ 758' w/400 sx (circ) 8-5/8" 24# @1744' w/50 sx Pulled 1468' Ran 5-1/2" 15.5# @ 3859' w/1460 sx (circ) 2-3/8" tbg	Rotary
Ginsberg Federal #13 G 26-18S-30E 1650' FNL & 1800'FEL	Hanson	Oil	02/07/72	02/21/72	3515'	Penrose Middle Grayburg	2035-2069' 3046-3065' 3107-3111' 3316-3320' 3387-3393' 3414-3418'	12-3/4" 34# @ 720' w/600 sx (circ) 8-5/8" 24# @ 1740' w/50 sx Pulled 1400' Ran 5-1/2" 14# @ 3515' w/ 1050 sx (circ) 2-3/8" tbg	Rotary
Louise Benson #1 J 26-18S-30E 2310'FSL & 1650'FEL	Hanson	Oil	01/08/72	01/15/72	3534'	Penrose Middle Grayburg	3163-3167' 3446-3452'	8-5/8" 24# @ 715' w/300 sx (3yds Ready Mix) 5-1/2" 15.5# @ 3534' w/350 sx (TOC 1500' calc) 2-3/8" tbg	Rotary

Yates Petroleum Corporation
Shugart Waterflood
Well Data Information
Attachment "C"
Page 4

Well Name	Operator	Type	Spud	Completions	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Ginsberg Federal #10 I 26-18S-30E 2310' FSL & 330' FEL	Hanson	Oil	11/10/71	11/19/71	3520'	Penrose Grayburg Middle Grayburg	3111-3117' 3160-3164' 3234-3239' 3280-3290' 3301-3306' 3313-3318' 3322-3324' 3362-3369' 3442-3448'	8-5/8" 36# @ 718' w/300 sx (circ) 5-1/2" 15.5# @ 3520' w/350 sx (TOC 1500' calc) 2-3/8" tbg	Rotary
Ginsberg Federal #11 P 26-18S-30E 990' FSL & 330' FEL	Hanson	Oil	11/17/71	12/02/71	3560'	Seven Rivers Queen Penrose Grayburg Middle Grayburg	2265-2290' 2342-2348' 3021-3030' 3136-3147' 3190-3194' 3251-3260' 3269-3278' 3302-3312' 3382-3390' 3489-3491' 3493-3497'	8-5/8" 32# @ 710' w/300 sx (circ) 5-1/2" 15.5# @ 3558' w/350 sx (TOC 1500' calc) 2-3/8" tbg	Rotary
Ute Federal #1 N 25-18S-30E 930' FSL & 2310' FWL	Siete	Oil	12/18/88	-----	6000'	Seven Rivers Middle Grayburg	2463-2487' 3640-3658'	13-3/8" 48# @ 362' (Circ 30 sx) 8-5/8" 24# @ 2004' (Circ 60 sx) 5-1/2" 15.5# @ 6000' (TOC - 1850' CBL) 2-3/8" tbg	SI
Keinath Federal #2 K 25-18S-30E 1650' FSL & 2310' FWL	Manzano	Oil	06/19/62	08/31/62	2520'	Seven Rivers	2454-2457' 2463-2470'	8-5/8" 24# @ 751' w/100 sx (TOC 250' calc) 5-1/2" 15.5# @ 2519' w/200 sx (TOC 750' calc) 2-3/8" tbg	Rotary
Keinath Federal #3 L 25-18S-30E 2310' FSL & 330' FWL	Manzano	Oil	12/11/71	01/08/72	3530'	Penrose Middle Grayburg	3177-3183' 3457-3467' 3484-3490'	8-5/8" 32# @ 710' w/300 sx (circ) 5-1/2" 15.5# & 17# @ 3500' w/350 sx (TOC 500' calc) 2-3/8" tbg	Rotary
Keinath Federal #4 M 25-18S-30E 990' FSL & 330' FWL	Manzano	Oil	01/17/72	02/14/72	3558'	Penrose Middle Grayburg	3194-3200' 3467-3477' 3489-3496	8-5/8" 32# @ 716' w/350 sx (circ) 5-1/2" 15.5# & 17# @ 3558' w/450 sx (TOC 500' calc) 2-3/8" tbg	Rotary
Keinath Federal #5 K 25-18S-30E 2310' FSL & 1650' FWL	Manzano	Oil	12/07/72	02/15/73	3650'	Penrose Middle Grayburg	3232-3234' 3262-3271' 3288-3294' 3394-3396' 3555-3559' 3574-3580'	8-5/8" 32# @ 823' w/200 sx (TOC 50' calc) 5-1/2" 15.5# & 17# @ 3650' w/450 sx (TOC 500' calc) 2-3/8" tbg	Rotary

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W73, W74, & W75-93TO Ms. Theresa PadillaDate February 18, 1993Yates Petroleum Corporation105 South Fourth StreetArtesia, NM 88210

This report is the property of Halliburton Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services

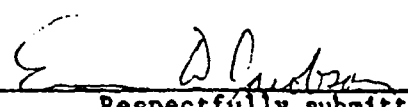
Submitted by _____ Date Rec. February 17, 1993

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

	<u>Double Eagle</u>	<u>Creek AL</u>	<u>Schneider Ranch</u>
Resistivity	<u>2.4 @ 70°</u>	<u>0.072 @ 70°</u>	<u>1.77 @ 70°</u>
Specific Gravity ..	<u>1.0026 @ 70°</u>	<u>1.0871 @ 70°</u>	<u>1.0029 @ 70°</u>
pH	<u>7.5</u>	<u>8.0</u>	<u>7.5</u>
Calcium	<u>2,429</u>	<u>4,303</u>	<u>1,666</u>
Magnesium	<u>210</u>	<u>2,400</u>	<u>674</u>
Chlorides	<u>1,600</u>	<u>75,000</u>	<u>2,000</u>
Sulfates	<u>400</u>	<u>600</u>	<u>600</u>
Bicarbonates	<u>305</u>	<u>274</u>	<u>274</u>
Soluble Iron	<u>0</u>	<u>0</u>	<u>0</u>
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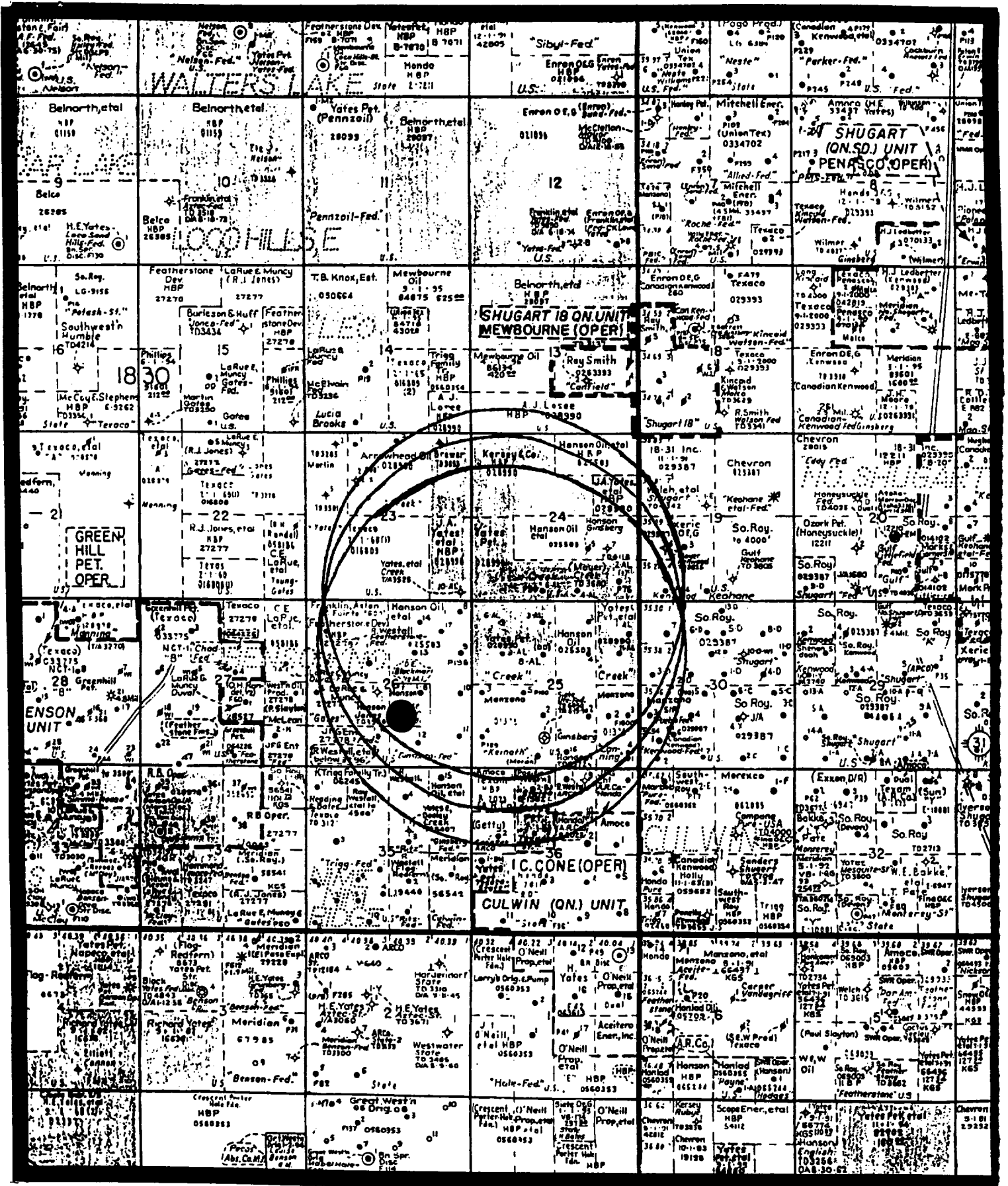
Remarks:


Respectfully submittedAnalyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

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Yates Petroleum Corporation
Snyder Ranch Water Well
J 26-T18S-R30E
SW NW SE
Attachment E

CASE 10711:

Application of Yates Petroleum Corporation for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Creek AL Lease Waterflood Project by injection of water into the Shugart, Penrose and Middle Grayburg formations through 108 injection wells located in the following described area:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, N.M.P.M.

Section 23: E/2 SE/4

Section 24: S/2 S/2, NW/4 SW/4

Section 25: NW/4, E/2 NE/4

The applicant requests that the Division establish procedures for the administrative approval of additional injection wells within the unit area without the necessity of further hearings and the adoption of any provisions necessary for such other matters as may be appropriate for said waterflood operations. Applicant further seeks to qualify this project for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Said area of interest is located ____ miles ____ of _____, New Mexico.

