

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 S. 4th Street Artesia, NM 88210

Contact party: Theresa Padilla

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 Padilla

Title: Petroleum Engineer

Signature: Theresa Padilla

Date: 6/20/89

* 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
Cotton "MX" Federal #1
C 14-19S-25E
Eddy County, New Mexico

- I. The purpose of recompleting this well is to make a disposal well for Dagger Draw-Upper Pennsylvanian waters (reinjecting produced waters) into the Canyon formation.

Yates Petroleum plans to convert this well to a disposal well in the Canyon formation.

- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Theresa Padilla (505) 748-1471
- III. Well Data: See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B
- VI. No wells within the area of review penetrate the proposed Canyon injection zone. The nearest Canyon well is the Yates' Rio Penasco #1-MF located about 1.3 miles North of the Cotton MX #1 in Unit F of Section 11, Township 19 South, Range 25 East. This well is in a different field--the Boyd-Permo-Penn.
- VII. 1. Proposed average daily injection volume approximately 8000 BWPd.
Maximum daily injection volume approximately 10,000 BWPd.
2. This will be a closed system.
3. Proposed average injection pressure-unknown.
Proposed maximum injection pressure--1536 psi.
4. The Dagger Draw-Upper Penn waters are re-injected produced waters. An analysis is attached.
(See Attachment C)
5. See Attachment C.

C-108

Application for Authorization to Inject
Cotton "MX" Federal #1

-2-

- VIII. 1. The proposed injection interval is the portion of the Canyon formation consisting of porous dolomite from 7680'-8000'.
2. Fresh water zones overlie the Canyon formation at depths to approximately 1000 feet. There are no fresh water zones underlying the Canyon formation.
- IX. The proposed disposal interval will be acidized with 10,000 gallons of 15% HCL acid.
- X. Logs were filed at your office when the Cotton well was drilled and completed in September, 1980.
- XI. One windmill exists within a mile SW of the subject location in the SW/4 NW/4 of Sec. 14-T19S-R25E, on the Phil Hefner ranch.
- The location of this well is indicated on Attachment D. A water analysis is also attached, with the sample collected May 24, 1989.
- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval.
- XIII. Proof of Notice
- A. Certified letters sent to the surface owner and offset operators-attached. (Attachment E)
- B. Copy of legal advertisement attached. (Attachment F)
- XIV. Certification is signed.

Yates Petroleum Corporation
Cotton "MX" Federal #1
C 14-19S-25E

Attachment A
Page 1

III. Well Data

- A. 1. Lease Name/Location:
Cotton "MX" Federal #1
C 14-19S-25E
810' FNL & 2180' FWL
2. Casing Strings:
a. Present Well Condition
13-3/8" 54# H-40 set at 416' with 400 sacks circulated.
8-5/8" 24# J-55 at 1230' with 700 sacks circulated.
5-1/2" 17# and 15.5# K-55 and 17# N -80 at 9480' with 300 sacks. TOC @ 8364' per CBL. Additional cement squeezed through perforations @ 8005', cemented with 350 sacks. TOC @ 6300' per CBO. with 350 sacks. TOC @ 6300' per CBL.

2-7/8" tubing with sub-pump @ 7640'.

Present TD: 9480', PBTD: 9015'
SI - Canyon perforations 7688'-7693'
3. Tubing:
Propose to replace present tubing with 2-7/8" 6.5# J-55 plastic coated tubing set at 7630'.
4. Packer:
Propose to use Guiberson Uni VI or Baker plastic-coated or nickel plated packer set at 7630'.
- B. 1. Injection Formation: N. Dagger Draw-Upper Penn, Canyon Dolomite
2. Injection Interval will be through perforations from approximately 7680'-8000'.
3. Well was originally drilled as an exploratory Morrow gas well.
4. Perforations: 9321'-9328' (Morrow)
CIBP @ 9250' with 35' cement

Perforations: 9110-1/2'-9113' (Morrow)
CIBP @ 9050' with 35' cement

Yates Petroleum
Cotton "MX" Federal #1
C 14-19S-25E
-2-

Attachment A (cont'd)

5. Next higher (shallower) oil or gas zone within 1/2 mile--NONE: within 2 miles--Wolfcamp. Next lower (deeper) oil or gas zone within 1/2 mile--NONE: within 2 miles--Strawn.

YATES PETROLEUM CORPORATION

COTTON "MX" FEDERAL #1

SEC. 14-19S-25E

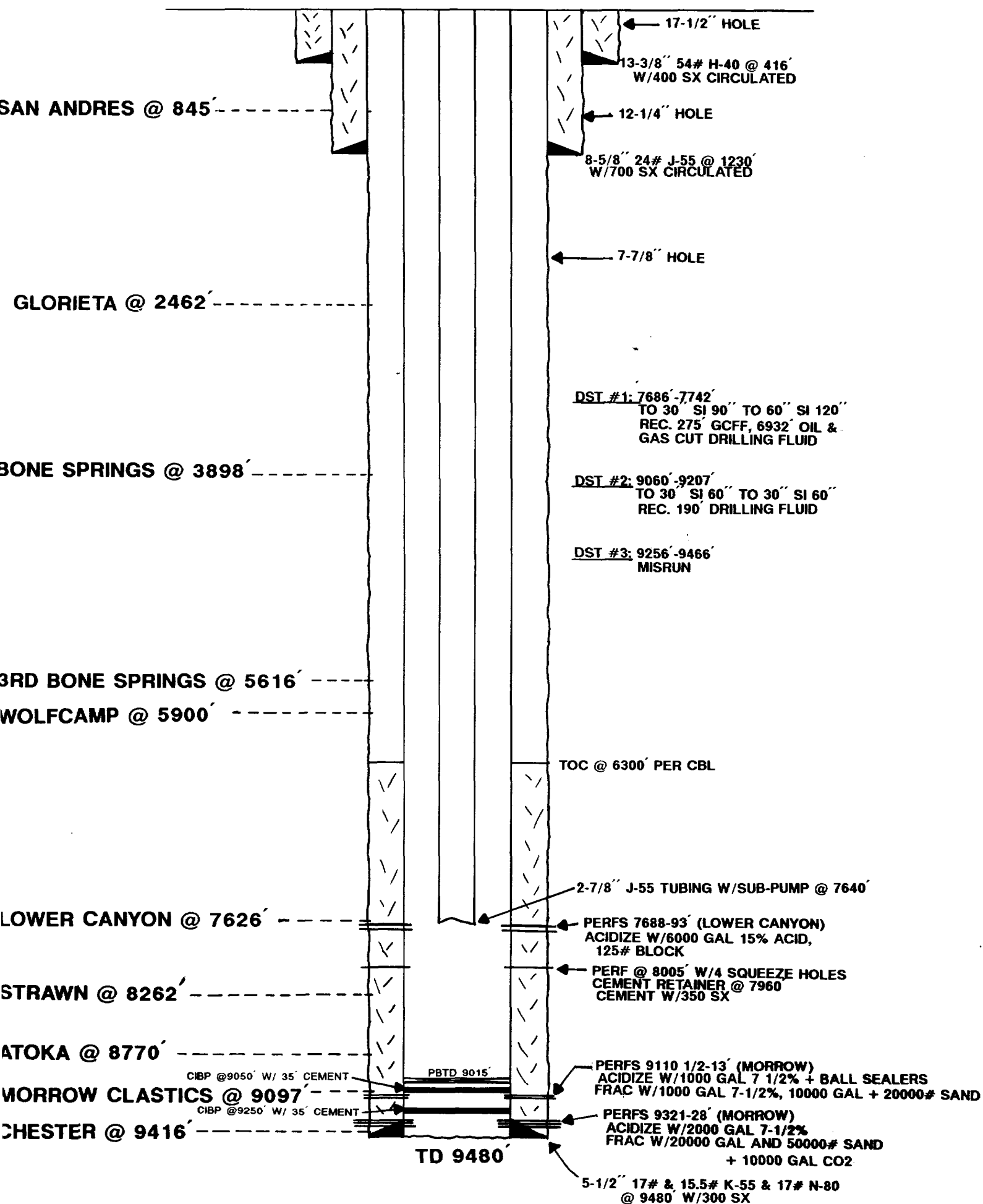
UNIT C

810' FNL & 2180' FWL

SPUD: 5-16-80 COMPLETED: 8-30-80

SI- N. DAGGER DRAW- UPPER PENN (CANYON) OIL WELL

DIAGRAMATIC SKETCH OF PRESENT WELL CONDITION



RECEIVED

ATTACHMENT A

JUN 29 1989

PAGE 2

**OIL CONSERVATION DIV.
SANTA FE**

YATES PETROLEUM CORPORATION
PROPOSED SALT WATER DISPOSAL WELL

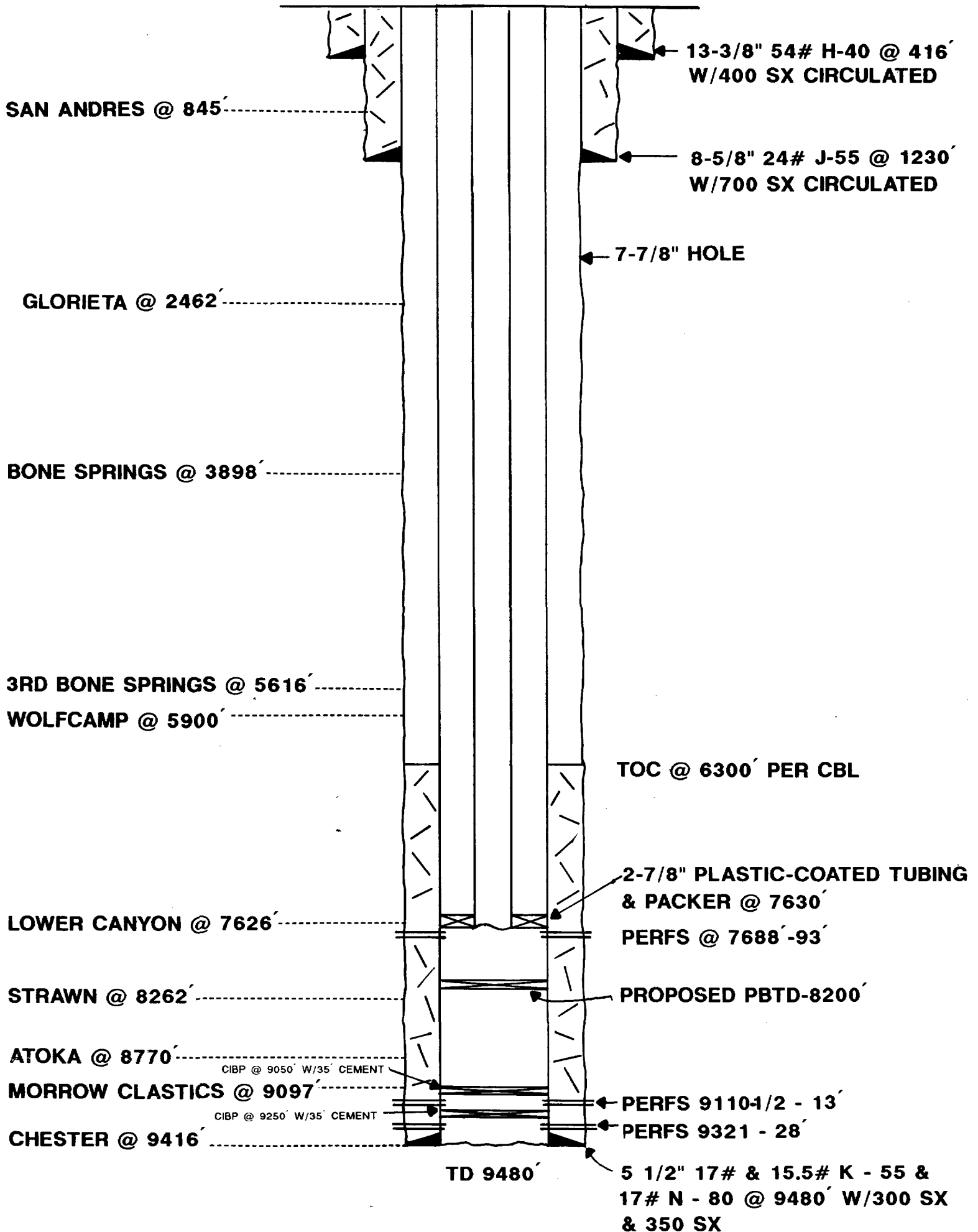
COTTON "MX" FEDERAL #1

SEC. 14 - 19S - 25E

UNIT C

810' FNL & 2180' FWL

DIAGRAMATIC SKETCH OF PROPOSED SALT WATER DISPOSAL WELL



PROPOSE TO REPLACE TUBING WITH 2-7/8" 6.5# J-55 PLASTIC-COATED TUBING AND GUIBERSON VI OR BAKER PLASTIC - COATED OR NICKEL - PLATED PACKER SET @ 7630'. PROPOSED PBTD @ 8200'. PROPOSE TO REINJECT DAGGER DRAW-UPPER PENNSYLVANIAN PRODUCED WATERS THROUGH PERFORATIONS FROM 7680 - 8000'.

ATTACHMENT C

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

ARTESIA, NEW MEXICO 88210

LABORATORY WATER ANALYSIS

No. W65, W66, & W67-88To Yates Petroleum Corporation

Date _____

105 South Fourth StreetArtesia, NM 88210

This report is the property of Halliburton Company 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 Company.

Submitted by _____ Date Rec. _____

Well No. _____ Depth _____ Formation _____

County _____ Field _____ Source _____

| | <u>Ross EC Fed. #2</u> | <u>Foster AN Com. #1</u> | <u>Parish IV Comm.</u> |
|--|------------------------|--------------------------|------------------------|
| Resistivity | .91 @ 60° | .9 @ 60° | .89 @ 60° |
| Specific Gravity | 1.005 @ 60° | 1.005 @ 60° | 1.005 @ 60° |
| pH | 7.5 | 7.3 | 7.0 |
| Calcium (Ca) | 1,000 | 1,000 | 1,000 *MPL |
| Magnesium (Mg) | 600 | 500 | 650 |
| Chlorides (Cl) | 4,000 | 5,000 | 5,000 |
| Sulfates (SO ₄) | Heavy | Heavy | Heavy |
| Bicarbonates (HCO ₃) | 1,200 | 1,000 | 1,100 |
| Soluble Iron (Fe) | Nil | Nil | Nil |
| | | | |
| | | | |
| | | | |

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Art Carrasco - District Engineer

HALLIBURTON COMPANY

cc:

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

ATTACHMENT D
(page 1)

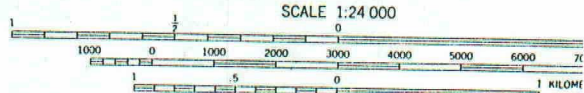
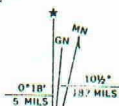


ited, and published by the Geological Survey

SGS and USC&GS

rainage in part compiled from aerial photographs
opography by planetable surveys 1955

ection, 1927 North American datum
grid based on New Mexico coordinate system,



SCALE 1:24 000

(SEVEN RIVERS)
5149 III SW R. 25 E. R. 26 E.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W202 & W203-89

TO Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Date May 24, 1989

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 Theresa Padilla Date Rec. May 24, 1989

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

| | #1 | #2 | |
|---------------------|-------|-------|--|
| Resistivity | N.A. | N.A. | |
| Specific Gravity .. | 1.001 | 1.001 | |
| pH | 7.0 | 7.0 | |
| Calcium | 325 | 108 | |
| Magnesium | 131 | 131 | |
| Chlorides | 300 | 100 | |
| Sulfates | 600 | 500 | |
| Bicarbonates | 153 | 244 | |
| Soluble Iron | Nil | Nil | |
| ----- | | | |
| ----- | | | |
| ----- | | | |

Remarks: Sample #1 - from windmill by Cotton MX well, Phil Hefner ranch
Sec. 14, T 19S, R 25E

Sample #2 - from Ned's well, Shaffer ranch, Routh NU #2
Sec. 12, T 19, R 24E

Rocky Chambers
Respectfully submitted

Analyst: Rocky Chambers - Field 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 E

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

June 20, 1989

CERTIFIED RETURN RECEIPT

Amoco Production Company
P. O. Box 3092
Houston, Texas 77001

Dear Sir:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Cotton "MX" Federal #1 located in Unit C of Section 14-T19S-R25E.

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

Sincerely,

Theresa Padilla
Petroleum Engineer

TP/cvg

Enclosure

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



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

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

June 20, 1989

CERTIFIED RETURN RECEIPT

David Fasken Estate
303 West Wall Avenue- Suite 1900
Midland, Texas 79701-5116

Dear Sir:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Cotton "MX" Federal #1 located in Unit C of Section 14-T19S-R25E.

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

Sincerely,

Theresa Padilla

Theresa Padilla
Petroleum Engineer

TP/cvg

Enclosure

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105 SOUTH FOURTH STREET
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SECRETARY
DENNIS G. KINSEY
TREASURER

June 20, 1989

CERTIFIED RETURN RECEIPT

Hondo Oil & Gas Company
P. O. Box 2208
Roswell, New Mexico 88202-2208

Dear Sir:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Cotton "MX" Federal #1 located in Unit C of Section 14-T19S-R25E.

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

Sincerely,

Theresa Padilla
Petroleum Engineer

TP/cvg

Enclosure

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1912 - 1985
FRANK W. YATES
1936 - 1986



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

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RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

June 20, 1989

CERTIFIED RETURN RECEIPT

Nearburg Producing Company
P. O. Box 88206
Dallas, Texas 75388

Dear Sir:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Cotton "MX" Federal #1 located in Unit C of Section 14-T19S-R25E.

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

Sincerely,

Theresa Padilla
Petroleum Engineer

TP/cvg

Enclosure

Attachment F

Legal Notice

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorizaiton to Inject) with the New Mexico Oil Commission seeking administrative approval for an injection well. The proposed well, the "Cotton MX Federal #1" is located 810' FNL & 2180' FWL of Section 14, Township 19 South, Range 25 East of Eddy County, New Mexico, will be used for saltwater disposal only. Disposal waters from the Dagger Draw-Upper Pennsylvanian will be re-injected into the Canyon Formation at a depth of 7680-8000 feet with a maximum pressure of 1536 psi and a maximum rate of 10,000 BWPD.

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 Padilla at (505) 748-1471.

Published in the Artesia Daily Press, Artesia, NM, June 21, 1989.

Affidavit of Publication

Copy of Publication

No. 12801

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 days consecutive weeks on the same day as follows:

First Publication June 21, 1989

Second Publication

Third Publication

Fourth Publication

and that payment therefor in the amount of \$ has been made.

Subscribed and sworn to before me this 21st day

of June, 1989

Barbara Ann Boars
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

the New Mexico Oil Commission seeking administrative approval for an injection well. The proposed well, the "Cotton MX Federal #1" is located 810' FNL & 2180' FWL of Section 14, Township 19 South, Range 25 East of Eddy County, New Mexico, will be used for saltwater disposal only. Disposal waters from the Dagger Draw-Upper Pennsylvanian will be re-injected into the Canyon Formation at a depth of 7680-8000 feet with a maximum pressure of 1536 psi and a maximum rate of 10,000 BWPD.

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Legal 12801

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