

## CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Mallon Oil Company Well: Mallon Fed '34' No. 1

Contact: RAY JONES Title: V.P. ENG. Phone: \_\_\_\_\_

DATE IN 6.7.95 RELEASE DATE 6.21.95 DATE OUT 7.6.95

Proposed Injection Application is for: ☐ WATERFLOOD ☐ Expansion ☐ Initial

Original Order: R- ☐ Secondary Recovery ☐ Pressure Maintenance

☐ SENSITIVE AREAS

☐ SALT WATER DISPOSAL

☐ WIPP ☐ Capitan Reef

YES Commercial Operation IF CAPACITY WILL ALLOW

Data is complete for proposed well(s)? YES Additional Data \_\_\_\_\_

### AREA of REVIEW WELLS

4 Total # of AOR

0 # of Plugged Wells

YES Tabulation Complete

☐ Schematics of P & A's

YES Cement Tops Adequate

☐ AOR Repair Required

### INJECTION INFORMATION

Injection Formation(s) SAN ANDRES

Source of Water G - SA AREA PRODUCERS Compatible YES

### PROOF OF NOTICE

☒ Copy of Legal Notice

☒ Information Printed Correctly

☒ Correct Operators

☒ Copies of Certified Mail Receipts

☒ Objection Received

☒ Set to Hearing \_\_\_\_\_ Date

NOTES: \_\_\_\_\_

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL YES

### COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____

5/30/96

**KELLAHIN AND KELLAHIN**

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

TELEPHONE (505) 982-4285

TELEFAX (505) 982-2047

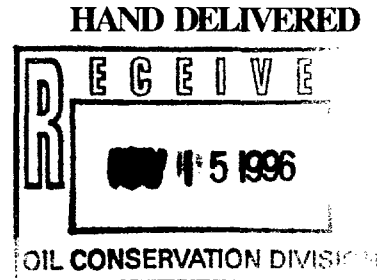
W. THOMAS KELLAHIN\*

\*NEW MEXICO BOARD OF LEGAL SPECIALIZATION  
RECOGNIZED SPECIALIST IN THE AREA OF  
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

May 15, 1996

Mr. David R. Catanach  
Underground Injection Control  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505



Re: **REQUEST TO ADD SUPPLEMENTAL PERFORATIONS**  
Amended Administrative Order SWD-598  
Mallon Oil Company's  
Mallon's "34" Federal Well No. 1  
Unit D, Sec 34, T19S, R34E, NMPM  
Lea County, New Mexico

Dear Mr. Catanach:

On August 7, 1995, the Division issued Amended Administrative Order SWD-598, copy enclosed, which authorized additional perforation in this salt water disposal well.

The Enclosed C-108 seeks approval to add further additional perforations in this well which will include the Seven Rivers formation in addition to the currently approved San Andres perforations.

Please call Ray Jones, petroleum engineer, with Mallon Oil Company at (303) 293-2333 if you need anything else in order to process this request.

Very truly yours,

A handwritten signature in cursive script, appearing to read "W. Thomas Kellahin".

W. Thomas Kellahin

cc: Mallon Oil Company  
Attn: Ray Jones



*AMENDED ADMINISTRATIVE ORDER SWD-598*

***APPLICATION OF MALLON OIL COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.***

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Mallon Oil Company made application to the New Mexico Oil Conservation Division on June 7, 1995, for permission to complete for salt water disposal its Mallon '34' Federal Well No.1 located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 34, Township 49 South, Range 34 East, NMPM, Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

**IT IS THEREFORE ORDERED THAT:**

The applicant herein, is hereby authorized to complete its Mallon '34' Federal Well No.1 located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 34, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the San Andres formation at approximately 5986 feet to 6260 feet through 2 7/8-inch plastic-lined tubing set in a packer located at approximately 5886 feet.

**VILLAGRA BUILDING - 408 Galisteo**

Forestry and Resources Conservation Division  
P.O. Box 1948 87504-1948  
827-5830

Park and Recreation Division  
P.O. Box 1147 87504-1147  
827-7485

**2040 South Pacheco**

Office of the Secretary  
827-5950

Administrative Services  
827-5925

Energy Conservation & Management  
827-5900

Mining and Minerals  
827-5970

Oil Conservation  
827-7131

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1197 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

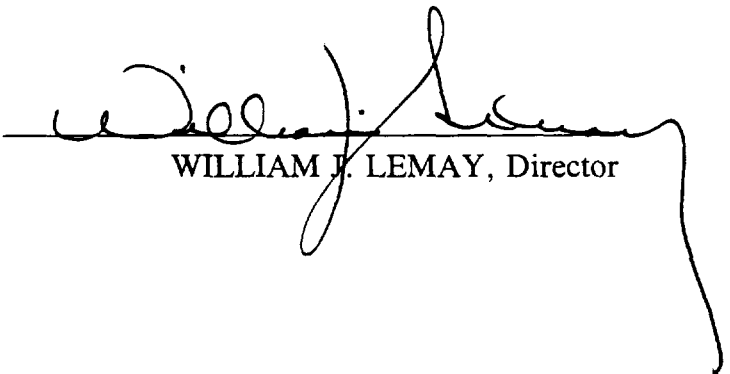
The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

**PROVIDED FURTHER THAT,** jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 7th day of August, 1995.



WILLIAM J. LEMAY, Director

WJL/BES

xc: Oil Conservation Division - Hobbs  
Bureau of Land Management - Carlsbad

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Mallon Oil Company  
ADDRESS: 999 18th Street, Suite 1700, Denver, CO 80202  
CONTACT PARTY: Ray Jones PHONE: 303-293-2333
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project: X Yes No  
If yes, give the Division order number authorizing the project SWD598
- 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 sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground 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: RAY JONES TITLE: VP ENGINEERING  
SIGNATURE: [Signature] DATE: APRIL 26 '86
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. \_\_\_\_\_

April 26, 1996

Addressee

Re: Salt Water Disposal Well  
Lea Northeast Field  
Sec. 34 T19S-R34E  
Lea, County, New Mexico

Dear Sirs:

Mallon Oil Company is making application to the New Mexico Oil Conservation Division for authority to add an additional zone for salt water disposal in the Mallon 34 Federal No. 1 well for water produced in the Lea, Northeast field. You are the operator of an oil or gas well within one-half mile of the proposed injector, located 660' FNL, 990' FWL, Section 34 T19S-R34E, NMPM, Lea County, New Mexico.

If you object to this Application, or feel that a public hearing is necessary, please contact the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87504-2088. You may also contact Mallon Resources Corporation, 999 18th Street, Suite 1700, Denver, CO 80202, Tel: 303-293-2333.

Please return a signed copy of this letter to the undersigned if you have no objections to the above mentioned Application.

Sincerely,

**Mallon Oil Company**



Ray E. Jones  
Vice President, Engineering

enclosure

We have no objections:

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FORM C-108 ATTACHMENT

**MALLON OIL COMPANY**

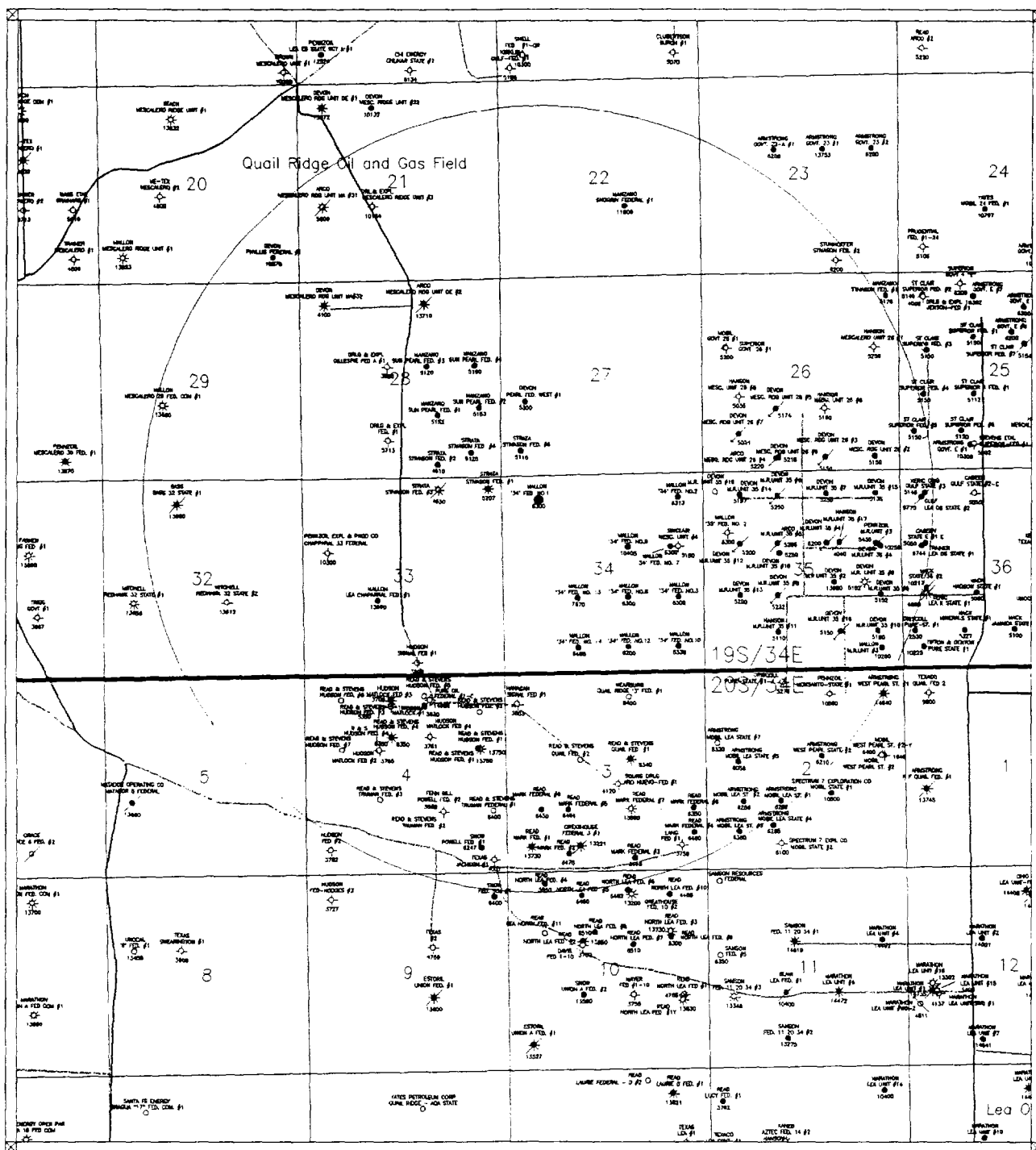
MALLON 34 FEDERAL NO. 1  
660' FNL & 990' FWL  
Sec. 34, T19S-R34E  
Lea County, NM

III. INJECTION WELL DATA

<u>Surface Casing:</u>	Hole size: 14-3/4", casing: 9-5/8" @ 1501' cemented with 950 sx circ to surface
<u>Production Casing:</u>	Hole size: 7-7/8", casing: 5-1/2" @ 6306' cemented with 1410 sx TOC @ 210' by temperature log
<u>Total Depth:</u>	6306'
<u>Tubing:</u>	2-7/8 tubing with Guiberson Uni VI packer at approximately 3900'
<u>Name of Injection Formation:</u>	Seven Rivers and San Andres
<u>Field:</u>	Lea, Northeast
<u>Injection Interval:</u>	Cased hole, 3956-4162' gross interval (new), 5947-6306' gross interval (current)
<u>Original Well Purpose:</u>	The well was drilled by Mallon Oil Company in 1994 and completed as a Grayburg Producer
<u>Perforated Intervals:</u>	3956-3962' (proposed) 3974-3986' (proposed) 4138-4162' (proposed) 3956-3962' 5094-5102' 5132-5138' 5986-6010' 6094-6112'
<u>Depth and name of overlying and/or underlying oil and gas zones in this area:</u>	Yates 3547' Delaware 5702'

Delaware also expected below San Andres in this  
area but well not drilled through the San Andres.





0.2 0. 0.2 0.4 0.6 0.8 1. miles



## MALLON OIL COMPANY

Mallon '34' Fed. No. 1  
Two Mile Radius Map  
Lea County, New Mexico



VI. TABULATION OF DATA ON ALL WELLS IN REVIEW AREA

Three wells have produced from the proposed disposal zone within the area of review. The West Pearl Federal #1 well in the NWSW Sec. 27, T19S-R34E is a marginal oil producer in the Seven Rivers zone.

It is unclear if the Stivason Federal #1 in the NENE Sec. 33 T19S-R34E still has open Seven Rivers perforations. Some, and possibly all, of this well's Seven Rivers perforations were cement squeezed when the well was converted to a Queen oil well in 1987.

The Stivason Federal #3 in the NWNE Sec. 33 T19S-R34E was converted to a Queen salt water disposal well in 1991 and all of the Seven Rivers perforations were cement squeezed at that time.

The Mallon '34' Federal No. 9 well in the SWNE Sec 34 T19S R34E was drilled through the Seven Rivers and San Andres and well details and wellbore diagram are included. Both the Seven Rivers and San Andres sections were cemented and the cement top for the production casing string is at 1430'. At this time, Mallon Oil Company has no plans to test the San Andres or Seven Rivers in this well.

<u>Well:</u>	Devon Energy Corporation West Pearl Federal #1
<u>Location:</u>	1980' FSL & 660' FWL -L-. Sec. 27, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Oil Producer
<u>Construction:</u>	8-5/8" @ 1310' w/700 sx - Circ 5-1/2" @ 5300 w/1075 sx - Circ
<u>Date Drilled:</u>	10/25/90
<u>Record of Completion:</u>	Perfs - 3884-3892', 3896-3899' IPF - 41 BO Comp. - 4/8/91 Add'l perfs: - 3968-3989', 4515-4541', 4548-4552', 4670-4673', 4784-4805', 4842-4859', 4939-4945'

VI. TABULATION OF DATA ON ALL WELLS IN REVIEW AREA (Continued)

<u>Well:</u>	Strata Production Company Stivason Federal #1
<u>Location:</u>	330 FNL & 330 FEL -A-, Sec. 33, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Oil Producer
<u>Construction:</u>	8-5/8" @ 1533' w/600 sx - Circ 4-1/2" @ 5207' w/600 sx
<u>Date Drilled:</u>	6/22/84
<u>Record of Completion:</u>	Perfs. - 3909-3915', 4010-4023', 4095-4100' 4511-4532', 5022-5028' IPF - 50 BO Comp. - 6/22/84
<u>Well:</u>	Mallon Oil Company Mallon '34' Federal No. 9
<u>Location:</u>	1980 FNL & 1980 FEL -G-, Sec. 34, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Drilled as a producer
<u>Construction:</u>	Hole size: 14-3/4"; Casing: 9-5/8" set @ 1502'; Cement: 875 sx, circulated to surface Hole size: 8-3/4"; Casing: 5-1/2" set at 10395'; Cement: 3190 sx, cement top at 1430' by temperature log
<u>Date Drilled:</u>	4/11/95 Spud
<u>Record of Completion:</u>	Completion not finished

VI. TABULATION OF DATA ON ALL WELLS IN REVIEW AREA (Continued):

<u>Well:</u>	Strata Production Company Stivason Federal #5
<u>Location:</u>	660 FSL & 550 FWL -M-, Sec. 27, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Oil Producer
<u>Construction:</u>	8-5/8" @ 1318' w/650 sx - Circ 5-1/2" @ 5115' w/830 sx
<u>Date Drilled:</u>	12/18/89
<u>Record of Completion:</u>	Perfs - 4518-4528', 4534-4537', 4794-4799' 4842-4844' IPF - 90 BO Comp. - 12/18/89
<u>Well:</u>	Strata Production Company Stivason Federal #4
<u>Location:</u>	660 FSL & 760 FEL -P-, Sec. 28, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Oil Producer
<u>Construction:</u>	8-5/8" @ 1330' w/650 sx - Circ 5-1/2" @ 5125' w/550 sx - Circ
<u>Date Drilled:</u>	7/19/89
<u>Record of Completion:</u>	Perfs. - 4508-4531', 4668-4669', 4804-4805', 4851-4861' IPF - 109 BO Comp. - 7/19/89

VI. TABULATION OF DATA ON ALL WELLS IN REVIEW AREA (Continued):

<u>Well:</u>	Strata Production Company Stivason Federal #3
<u>Location:</u>	330 FNL & 1650 FEL -B-, Sec. 33, T19S-R34E Lea County, New Mexico
<u>Type Well:</u>	Salt Water Disposal
<u>Construction:</u>	8-5/8" @ 1597' w/550 sx 5-1/2 @ 4630' w/375 sx
<u>Date Drilled:</u>	3/7/86
<u>Record of Completion:</u>	Perfs. - 4527-4536', 4546-4556' Comp. - 2/20/92 Add'l. Perfs. - 3901-3908', 3926-3932'

VII. PROPOSED OPERATION:

The current salt water disposal system will be utilized as is. At the present time, nine wells produce 700 barrels water per day. If the well's disposal capacity is such to handle additional water, other operator's wells in the area may be trucked in to the storage tanks.

The average injection rate is estimated at 1400 BWPD and will be subject to pressure limitation.

The proposed maximum injection rate is 1400 BWPD, and will be subject to pressure limitation

The system will be open.

The proposed average injection pressure is 791 psi or as determined by step rate test and approved by state.

The proposed maximum injection pressure is 791 psi or as determined by step rate test and approved by state.

The sources of injected water will be from the Delaware and Morrow. A water sample from the Mallon 34 Federal No. 1, San Andres, and Mallon 34 Federal No. 2, Delaware, are included.

VIII. GEOLOGIC DATA

<u>Geological Name:</u>	Seven Rivers
<u>Lithological Detail:</u>	Fine grain sandstone with minor interbedded shales and limestone
<u>Formation Top:</u>	3854'
<u>Thickness:</u>	650' thick
<u>Geological Name:</u>	San Andres
<u>Lithological Detail:</u>	Primarily dolomite with thin interbeds of limestone, sandstone and shale.
<u>Formation Top:</u>	5947'
<u>Thickness:</u>	Thickness of the San Andres is at least 359' in this well.
<u>Depth:</u>	Well reached total depth while in San Andres limestone at 6306'.
<u>Geological Data of Drinking Water Zone:</u>	The underground source of drinking water overlying the zone of disposal is the Ogalla, which occurs 65 to 150 feet in this area and is approximately 100-200' thick.

IX. PROPOSED STIMULATION PROGRAM

None anticipated at this time. Details have not been finalized at this time.

X. LOG AND TEST DATA:

Were previously filed by operator, Mallon Oil Company

XI. ANALYSIS OF FRESH WATER WELL:

No known fresh water wells within 1 mile of this proposed injection well.

XII. After examining all available geological and engineering data, we find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. A copy of our application has been furnished by certified mail to the surface owner and to each leasehold operator within one-half mile of our proposed injection well.

# MALLON OIL COMPANY

ENGINEERING CHART

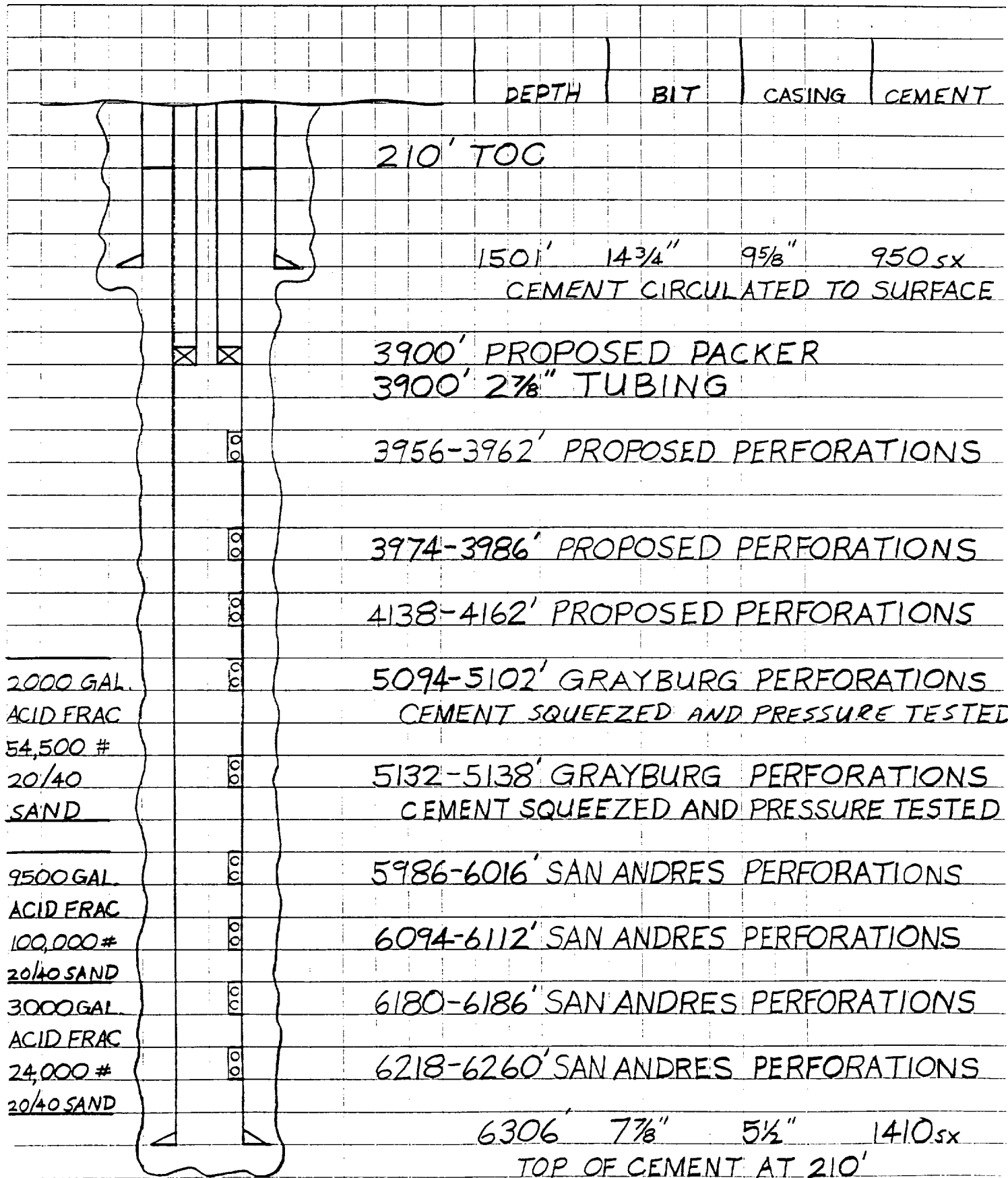
FILE \_\_\_\_\_

APPN \_\_\_\_\_

DATE \_\_\_\_\_

BY \_\_\_\_\_

SUBJECT MALLON 34 FEDERAL NO. 1  
PROPOSED COMPLETION FOR INJECTION





# MALLON OIL COMPANY

## ENGINEERING CHART

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

FILE \_\_\_\_\_

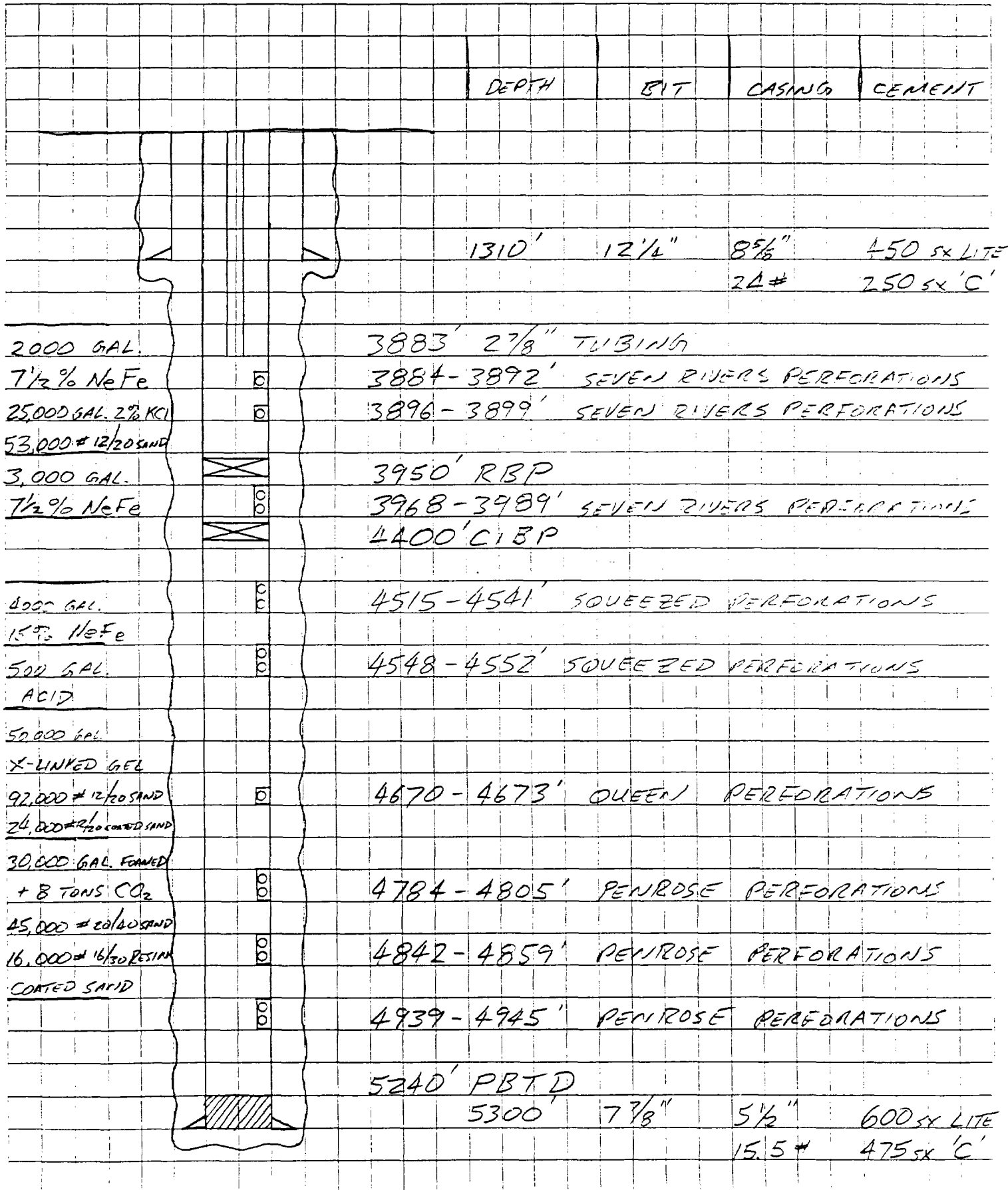
APPN \_\_\_\_\_

DATE \_\_\_\_\_

BY \_\_\_\_\_

SUBJECT WEST PEARL FEDERAL #1

COMPLETION DATE 10/25/90



# MALLON OIL COMPANY

## ENGINEERING CHART

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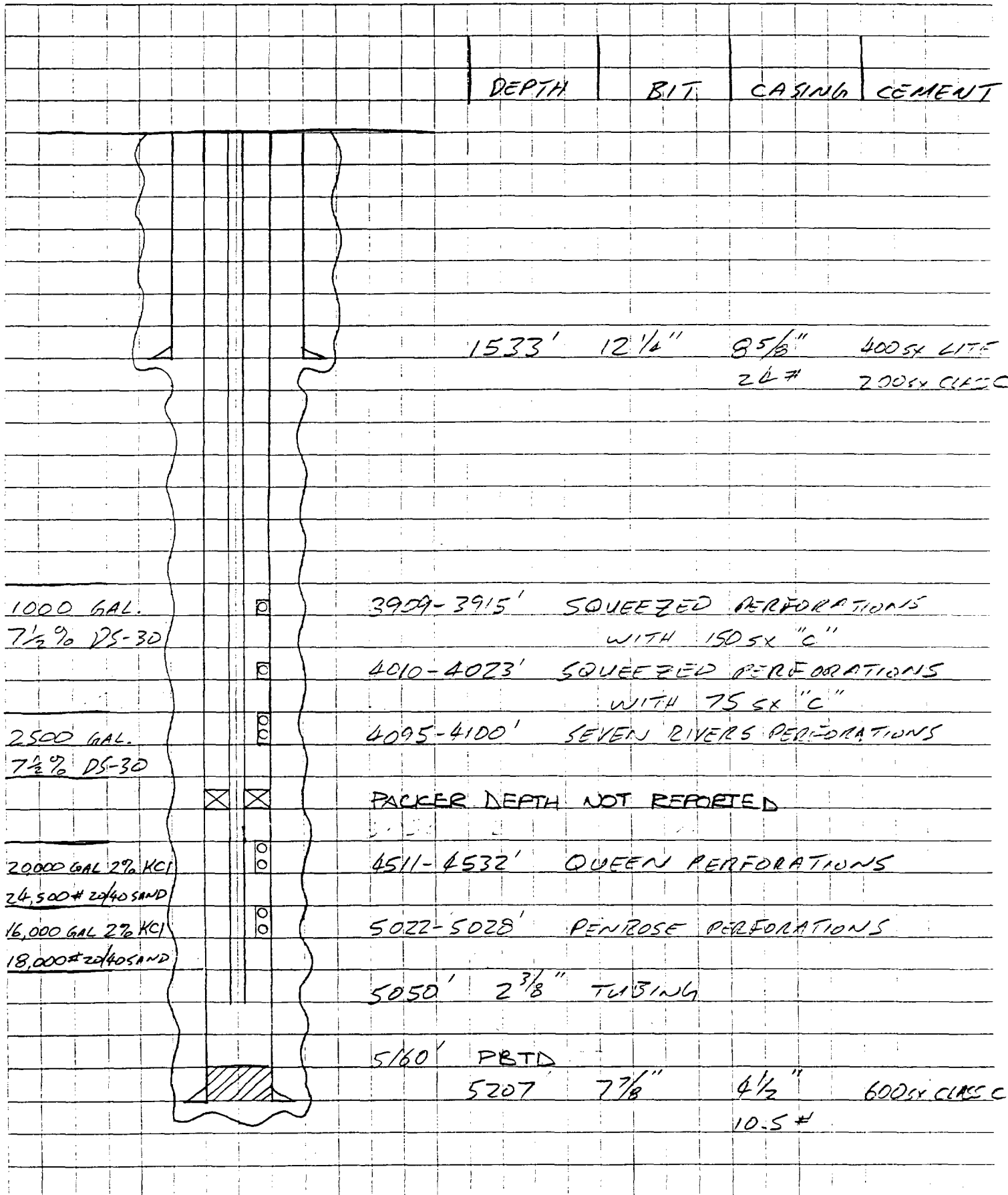
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APPN \_\_\_\_\_

DATE \_\_\_\_\_

BY \_\_\_\_\_

SUBJECT STIVASON FEDERAL #1  
COMPLETION DATE 6/22/84



# MALLON OIL COMPANY

ENGINEERING CHART

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OF

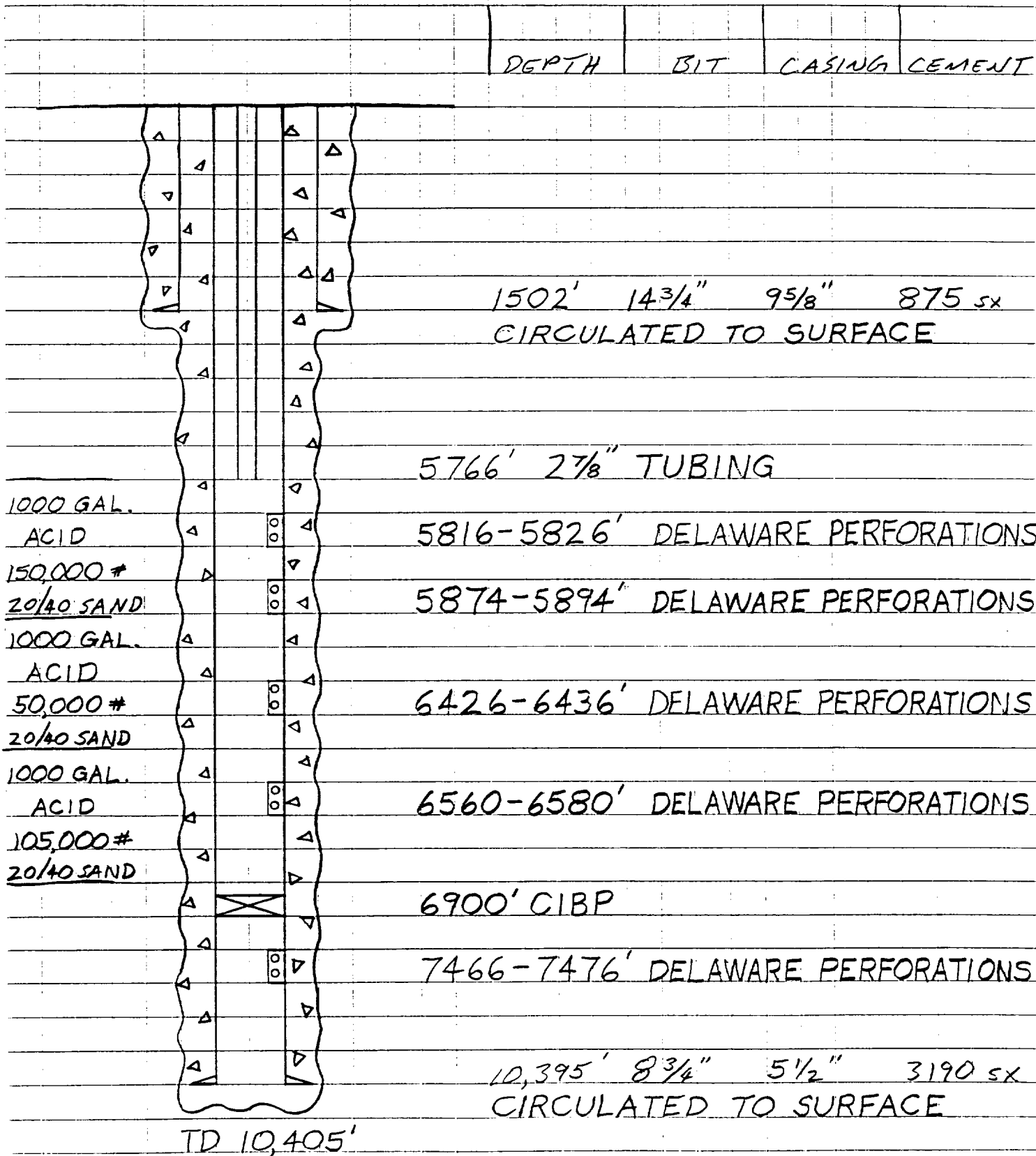
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APPN

DATE

BY

SUBJECT MALLON 34 FEDERAL NO. 9  
COMPLETION DATE 7/5/95



# MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO.

OF

FILE

APPN

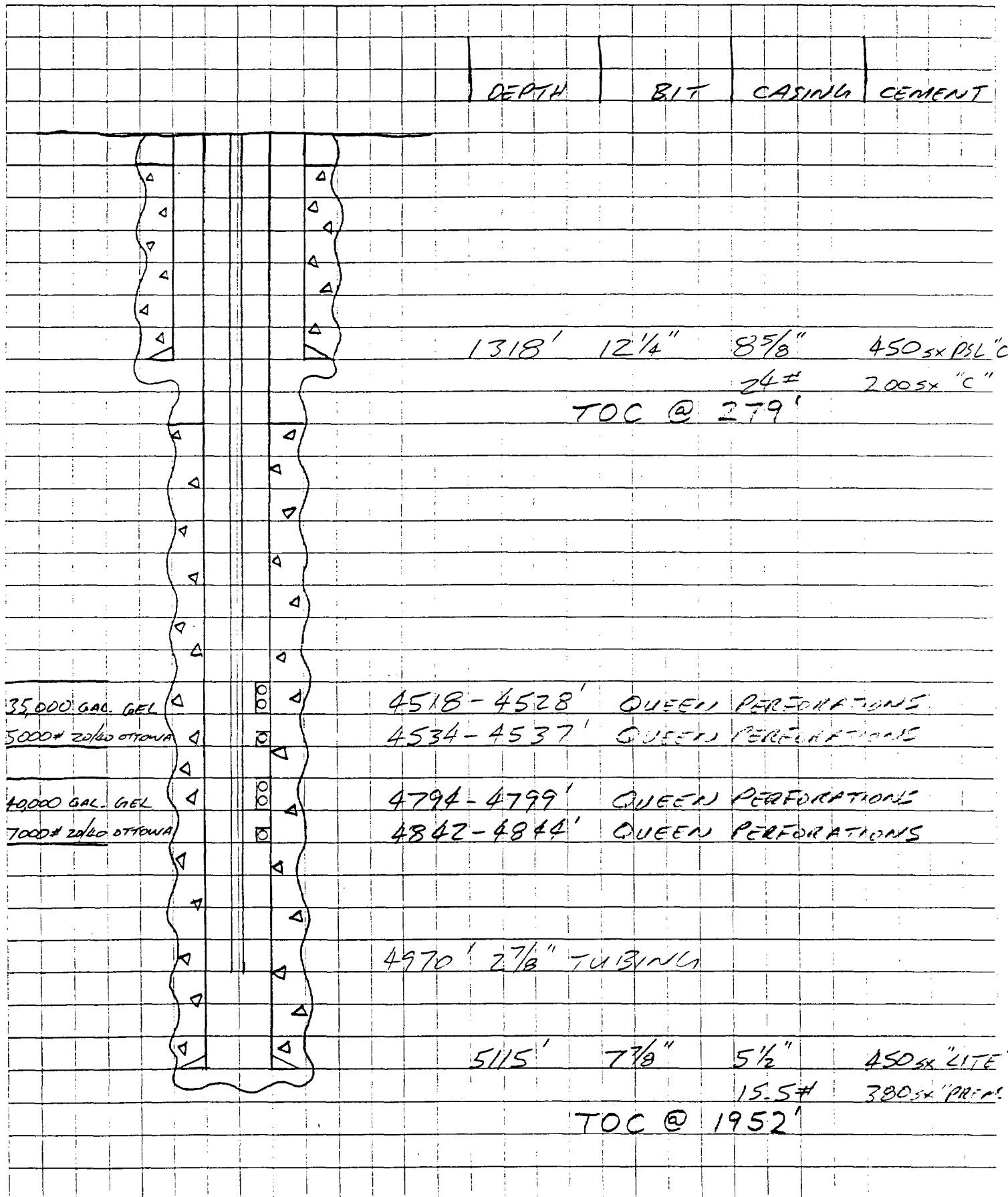
DATE

BY

SUBJECT

STIVASON FEDERAL #5

COMPLETION DATE 12/18/89



# MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO.

OF

FILE

APPN

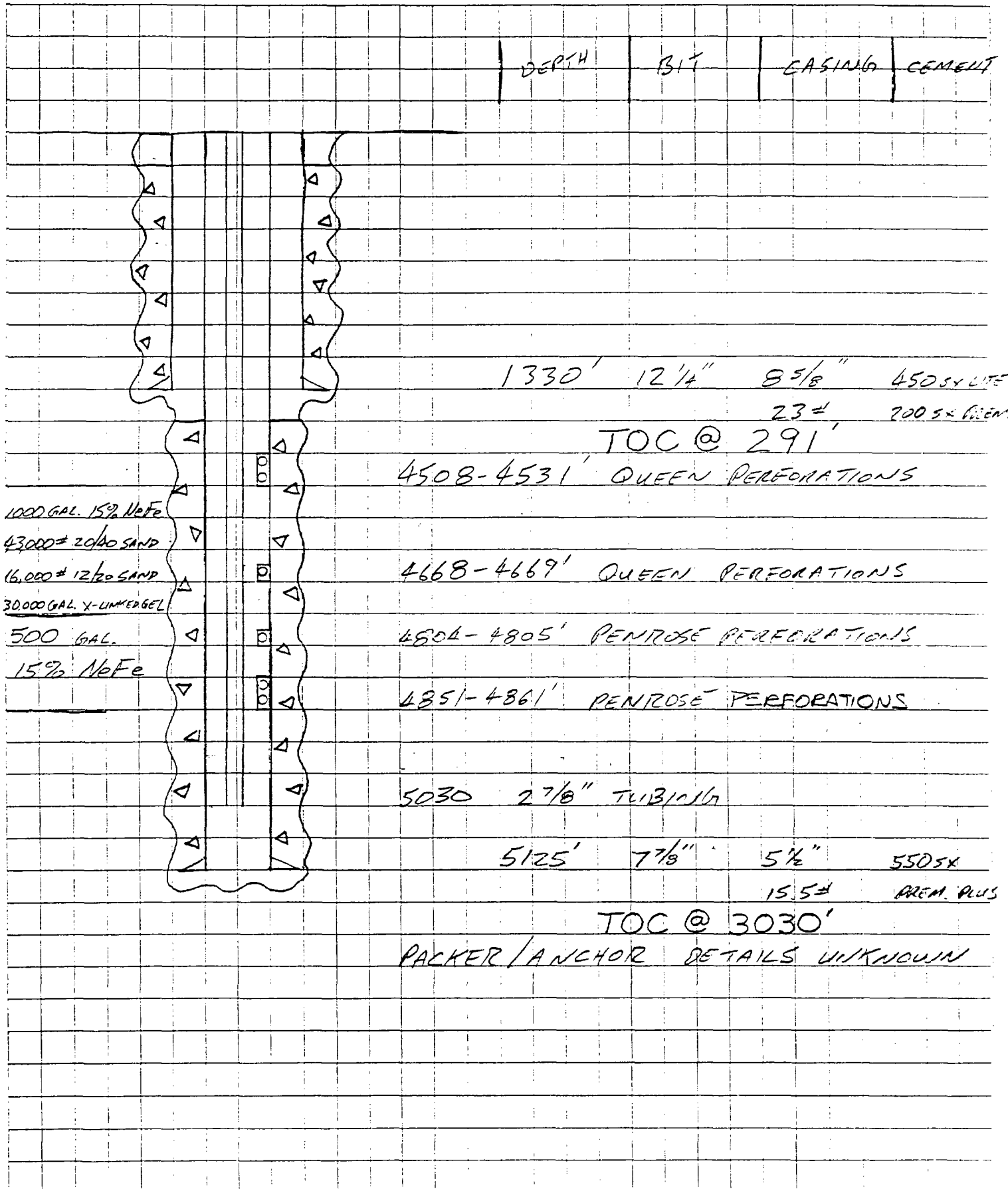
DATE

BY

SUBJECT

STIVASOIN FEDERAL #14

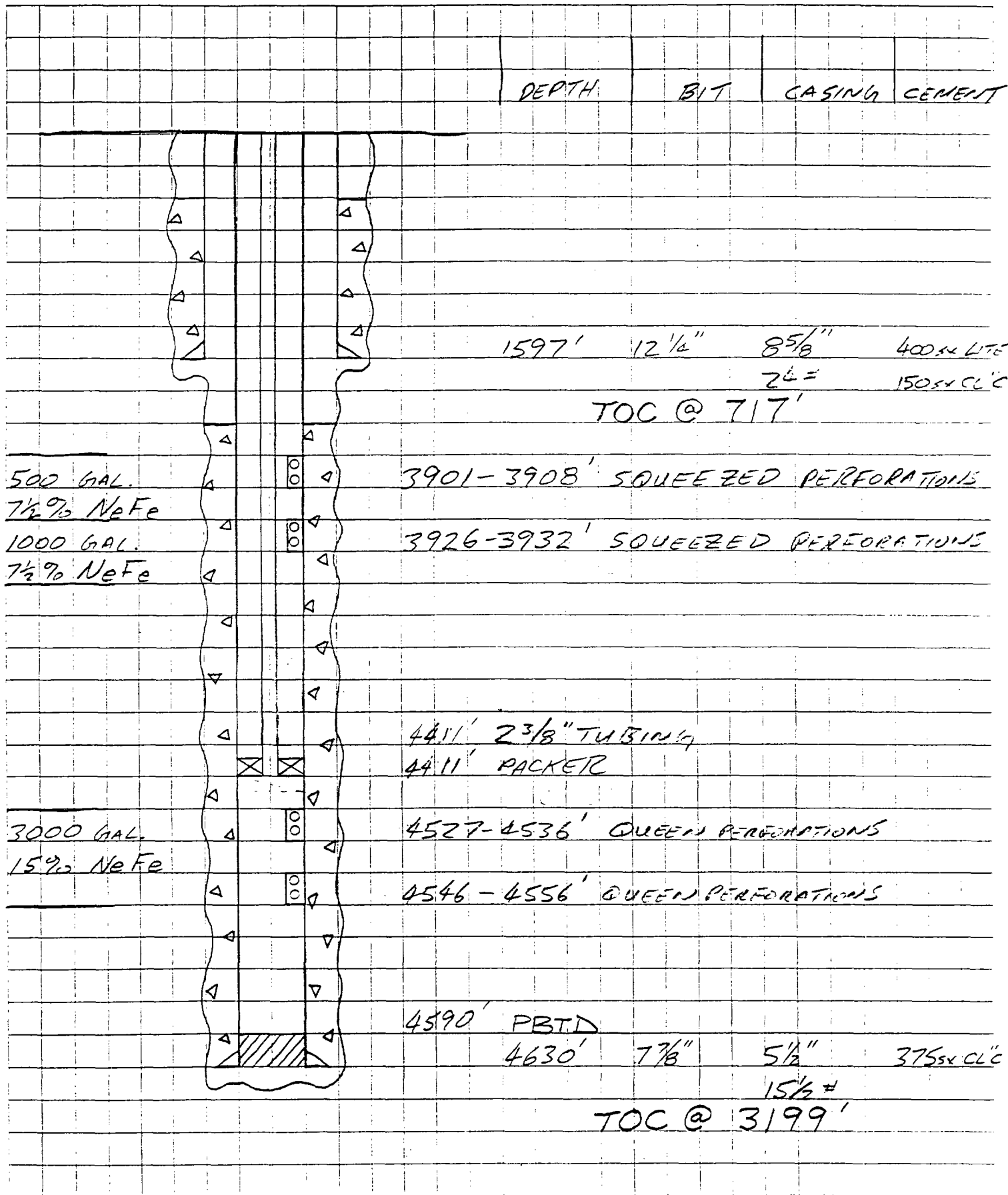
COMPLETION DATE 7/19/89



**MALLON OIL COMPANY**  
ENGINEERING CHART

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
FILE \_\_\_\_\_  
APPN \_\_\_\_\_  
DATE \_\_\_\_\_  
BY \_\_\_\_\_

SUBJECT STIVASON FEDERAL #3 (SWD)  
COMPLETION DATE 3/7/86



## THE WESTERN COMPANY OF NORTH AMERICA

## WATER ANALYSIS

HORBS, NEW MEXICO LAB

ANALYSIS #: HB010220

## GENERAL INFORMATION

OPERATOR: MALLON OIL

DEPTH: 0

WELL: 34 FED # 1

DATE SAMPLED: 9-17-94 4:00

FIELD:

DATE RECEIVED: 9-17-94

FORMATION:

SUBMITTED BY:

COUNTY:

WORKED BY: MIKE HILL

STATE:

PHONE #: 505-392-5556

## SAMPLE DESCRIPTION:

SAN ANDRES

## PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY: 1.110 @ 77 °F

PH: 6

RESISTIVITY (CALC.): 1055 OHMS @ 75 °F

IRON (FE++): 250 PPM

SULFATE: 541 PPM

CALCIUM: 6306 PPM

TOTAL HARDNESS: 45045 PPM

MAGNESIUM: 7115 PPM

BICARBONATE: 824 PPM

CHLORIDE: 93673 PPM

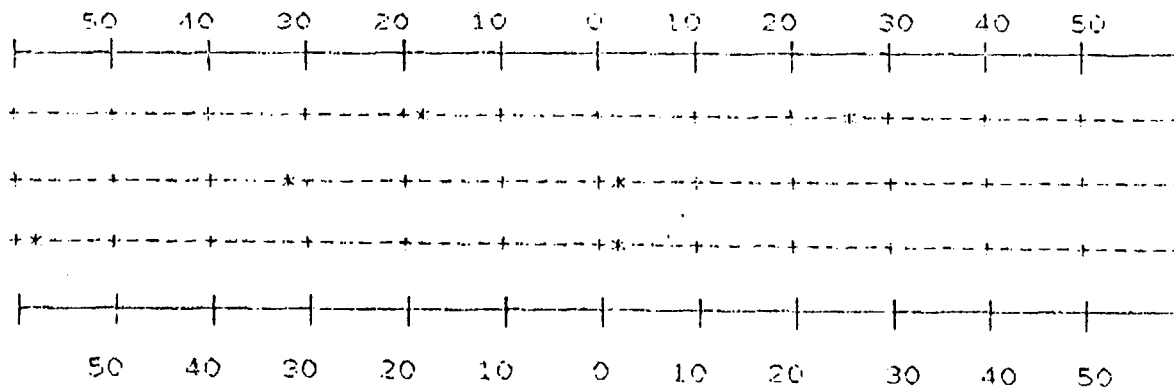
SODIUM CHLORIDE (CALC): 154091 PPM

SODIUM+POTASS: 40636 PPM

TOT. DISSOLVED SOLIDS: 180719 PPM

## REMARKS:

## STIFF TYPE PLOT (IN MEQ/L)



ANALYST

MIKE HILL

THE WESTERN COMPANY OF NORTH AMERICA  
WATER ANALYSIS

HOBBS, NEW MEXICO LAB

ANALYSIS #: HB010491

## GENERAL INFORMATION

OPERATOR: MALLON OIL CO	DEPTH: 0
WELL: MALLON 34 FED 2 AND 3	DATE SAMPLED: 3/20/95
FIELD:	DATE RECEIVED: 3/20/95
FORMATION:	SUBMITTED BY:
COUNTY:	WORKED BY: MIKE LEE
STATE:	PHONE #: 505-392-5556

## SAMPLE DESCRIPTION:

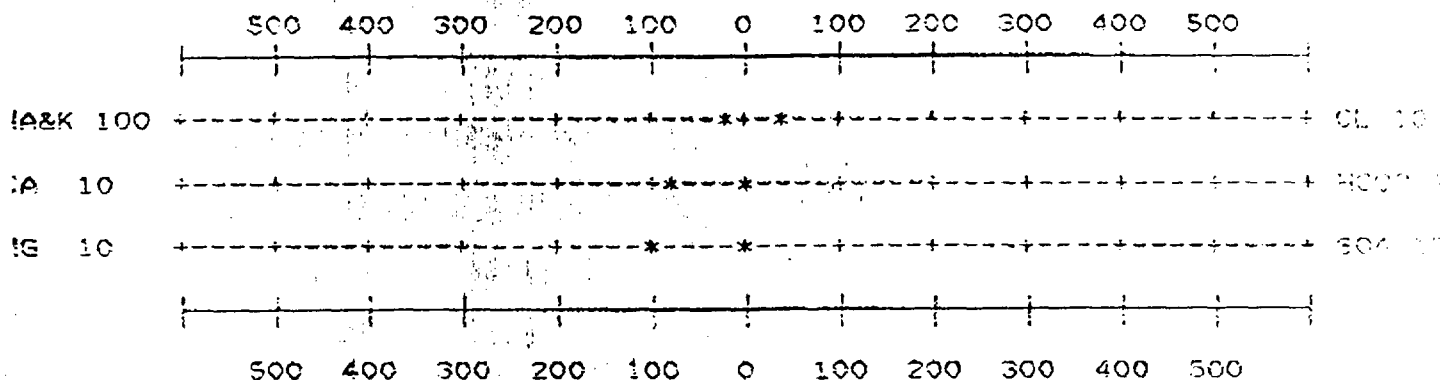
DELAWARE

## PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY: 1.185 @ 100°F	PH: 6.15
RESISTIVITY (CALC.): .065 OHMS @ 75 °F	
IRON (FE++): 10 PPM	SULFATE: 274 PPM
CALCIUM: 16878 PPM	TOTAL HARDNESS: 92627 PPM
MAGNESIUM: 12304 PPM	BICARBONATE: 216 PPM
CHLORIDE: 138365 PPM	SODIUM CHLORIDE (CALC): 227611 PPM
SODIUM+POTASS: 47325 PPM	TOT. DISSOLVED SOLIDS: 279007 PPM
KCL: NONE	H2S: NONE

## REMARKS:

## STIFF TYPE PLOT (IN MEG/L)



ANALYST

MIKE LEE



**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

In the matter of the hearing called  
by the Oil Conservation Division  
for the purpose of considering:

Administrative Application of  
Mallon Oil Company for  
Salt Water Disposal Approval  
MALLON "34" Federal Well No. 1  
Lea County, New Mexico.

**CERTIFICATE OF MAILING AND COMPLIANCE WITH ORDER R-8054**

W. Thomas Kellahin, attorney in fact and authorized representative of Mallon Oil Company, states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on the 8th day of June, 1995 I caused to be sent, by certified mail return receipt requested, notice of this application and a copy of the application for the referenced case along with the cover letter, to the parties shown in the application as evidenced by the attached copies of receipt cards, and that pursuant to Form C-108 advising said party that if they had an objection then they must file said objection with the Division within 15 days of June 8, 1995.

  
W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me on this 28th day of June, 1995.

  
Notary Public

My Commission Expires: June 15th, 1998

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.

Mallon/"34" 06/29/95  
June 8, 1995

Article number, and the date

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

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Bureau of Land Management  
Roswell District Office  
1717 West Second Street  
Roswell, NM 88202

4a. Article Number  
091 494 852

4b. Service Type

☒ Registered ☐ Insured  
☐ Certified ☐ COD  
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery  
6-12-95

5. Signature (Addressee)

6. Signature (Agent)

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

PS Form 3811, December 1991 ★U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Z 091 494 852



**Receipt for Certified Mail**

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Sent to

Bureau of Land Management  
Roswell District Office  
1717 West Second Street  
Roswell, NM 88202

Special Delivery Fee	
Restricted Delivery Fee	

Z 091 494 853

Is your RETURN ADDRESS completed on the reverse side?

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- Complete items 3, and 4a & b.
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Mallon/"34" 06/29/95  
June 8, 1995

Article number, and the date

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

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Manzano Oil Corporation  
PO Box 2107  
Roswell, NM 88202  
Attn: Donnie Brown

4a. Article Number  
091 494 853

4b. Service Type

☒ Registered ☐ Insured  
☐ Certified ☐ COD  
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery  
6-12-95

5. Signature (Addressee)

6. Signature (Agent)

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

PS Form 3811, December 1991 ★U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.



**Receipt for Certified Mail**

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(See Reverse)

Sent to

Manzano Oil Corporation  
PO Box 2107  
Roswell, NM 88202  
Attn: Donnie Brown

Special Delivery Fee	
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Z 091 494 854



**Receipt for Certified Mail**

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Sent to

Strata Production Company  
PO Box 1030  
Roswell, NM 88201  
Attn: Bruce Stubbs

Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

3800, March 1993

Mallon/"34" 06/29/95  
June 8, 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.

Mallon/"34" 06/29/95  
June 8, 1995

Article number, and the date

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

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Strata Production Company  
PO Box 1030  
Roswell, NM 88201  
Attn: Bruce Stubbs

4a. Article Number  
091 494 854

4b. Service Type

☒ Registered ☐ Insured  
☐ Certified ☐ COD  
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery  
JUN 12 1995

5. Signature (Addressee)

6. Signature (Agent)

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

PS Form 3811, December 1991 ★U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Z 091 494 855



**Receipt for  
Certified Mail**

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Sent to

Devon Energy Corporation  
20 North Broadway  
Ste. 1500  
Oklahoma City, OK 73102  
Attn: J.M. Lacey

00, March 1993

Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$

Postmark: OK  
Mallon/"34" 06/29/95  
June 8, 1995

F