



May 5, 1989

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

RECEIVED

MAY - 8 1989

OIL CONSERVATION DIV.
SANTA FE

Attention: Mr. David R. Catanach

Dear Sir:

Pelto Oil Company hereby applies to the New Mexico Oil Conservation Division for administrative approval under rule 701-F.4 to expand the Twin Lakes San Andres Waterflood Project (OCD order No. R-8611) by the conversion of three additional wells to water injectors. Attached are C-108 forms along with required well data and proof of notices.

Sincerely yours,

R. L. Spottswood
Engineering Manager

RLS:kln

67:213:1

Enclosures

cc: New Mexico Oil Conservation (w/encl)

Drawer DD

Artesia, NM 88210

Attention: Mr. Mike Williams

F-501-Y-4



May 1, 1989

Roswell Daily Record
P. O. Box 1897
Roswell, NM 88201
ATTENTION: Legal Department
Fran

RE: Legal Notices
Expansion of Twin Lakes Waterflood Unit
Twin Lakes Prospect (NM8998)
Chaves County, NM

Dear Fran:

Pursuant to our phone conversation of May 1, 1989, please find enclosed herewith a typed copy of the Legal Notice we wish to have published for one (1) day under the proper section of the Daily Record.

Once this has been published, please send one (1) copy of said publication along with an Affidavit of Publication to Pelto Oil Company, P. O. Box 1417, Roswell, NM 88201, ATTENTION: Mr. Jack Nance. Also, please send one (1) copy of said publication along with an Affidavit of Publication to Pelto Oil Company, One Allen Center - Suite 1800, 500 Dallas Street, Houston, TX 77002.

Billing should be directed to our Houston address to the attention of Mr. Bob Spottswood. If further information is necessary, please contact the undersigned or Mr. Spottswood at anytime.

Thank you for your assistance on this matter.

Very truly yours,

PELTO OIL COMPANY

A handwritten signature in cursive script that reads 'Richard D. Eicher'.

Richard D. Eicher
Regional Landman

RDE:jas:RDE3/16
Enclosures

NOTICE OF PUBLICATION

Pelto Oil Company
One Allen Center
Suite 1800
500 Dallas Street
Houston, TX 77002

CONTACT PARTY: Robert L. Spottswood
Manager of Engineering
(713) 651-1800

Pelto Oil Company has applied to the New Mexico Oil Conservation Division for administrative approval under Rule 701.F4 to expand the Twin Lakes San Andres Waterflood Project (Chaves County, New Mexico) (O.C.D. Order No. R-8611) by the conversion of three additional wells to water injection. Ogallala and/or produced waters will be injected into the San Andres formation.

Unit Well #1: 2310' FNL and 2310' FWL, Section 25, T8S, R28E, Chaves County, New Mexico. Anticipate maximum injection rate of 500 barrels of water per day at 510 psig, maximum surface pressure into perforated interval 2566' to 2666'.

Unit Well #74: 1980' FSL and 1980' FWL, Section 1, T9S, R28E, Chaves County, New Mexico. Anticipate maximum injection rate of 300 barrels of water per day at 510 psig maximum surface pressure into perforated interval 2585' to 2611'.

Pelto Kuchemann Well #2: 2310' FNL and 660' FWL, Section 30, T8S, R29E, Chaves County, New Mexico. Anticipate maximum injection rate of 300 barrels of water per day at 520 psig maximum surface pressure into perforated interval 2613' to 2717'.

Any objections or requests for hearing must be filed with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87504-2088, within 15 days.

PELTO OIL COMPANY
TWIN LAKES SAN ANDRES WATERFLOOD PROJECT
CHAVES COUNTY, NEW MEXICO

RE: Twin Lakes San Andres Unit No. 74
Former O'Brien C-#3
1980' FSL and 1980' FWL of
Section 1, T9S, R28E
Chaves County, New Mexico

During the waterflood hearing on September 9, 1987, Pelto Oil Company presented a proposal to convert O'Brien C-#3 (Twin Lakes Unit No. 74) to a water injector. This conversion was not allowed by the NMOCD due to expressed lack of adequate technical data which would show that the proposed injection method for this well would be sufficient to confine the injection fluids to the San Andres Formation and would not allow the migration of such fluids to other formations

Since the hearing, Pelto Oil Company has plugged and abandoned the portion of the well below the San Andres as per discussion with NMOCD personnel in Artesia. This application shows the results of this plugging operation and proposed final steps to convert this well to an injector also discussed with NMOCD personnel in Artesia.

Pelto Oil Company respectively requests administrative approval to convert Twin Lakes San Andres Unit Well #74 to a waterflood injection well under State of New Mexico Oil Conservation Division General Rule 701 F.4.

This injector is needed to improve the waterflood sweep efficiency in unit pattern nos. 25 and 29.

Attachments

1. Form C-108
2. Map showing location of Unit #74 and flood pattern #29
3. Unit #74 well bore sketch current conditions as of 9/8/87
4. Unit #74 well bore sketch proposed injector as of 9/8/87
5. Unit #74 well bore sketch current conditions as of 11/1/88
6. Unit #74 Cement Top log ran 3/16/88
7. Unit #74 Temperature Survey ran 4/12/88
8. Unit #74 Well bore sketch proposed workover
9. Unit #74 Well bore sketch proposed injector
10. Table C-108 III-A proposed injector Unit #74
11. Map showing wells with 1/2 mile of proposed unit injector #74
12. Table C-108 VI offset wells to proposed injector Unit #74
13. Well bore sketch O'Brien C-#1
14. Well bore sketch O'Brien C-#4
15. Well bore sketch O'Brien B-#3
16. Well bore sketch O'Brien D-#1
17. Proof of notices

RLS:klm
B:152

Pelto Twin Lakes Unit #74

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no

II. Operator: Pelto Oil Company
Address: 500 Dallas Street, Suite 1800, Houston, TX 77002
Contact party: Robert L. Spottswood Phone: (713) 651-1800

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 OCD # R-8611.

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: Robert L. Spottswood Title Manager of Engineering

Signature: Robert L. Spottswood Date: 5/5/89

* 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. Previously submitted on September 9, 1987 during the NMOCD hearing on Pelto Oil Company's application for a waterflood project; the Twin Lakes Field Chaves County, New Mexico.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

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

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

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

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

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

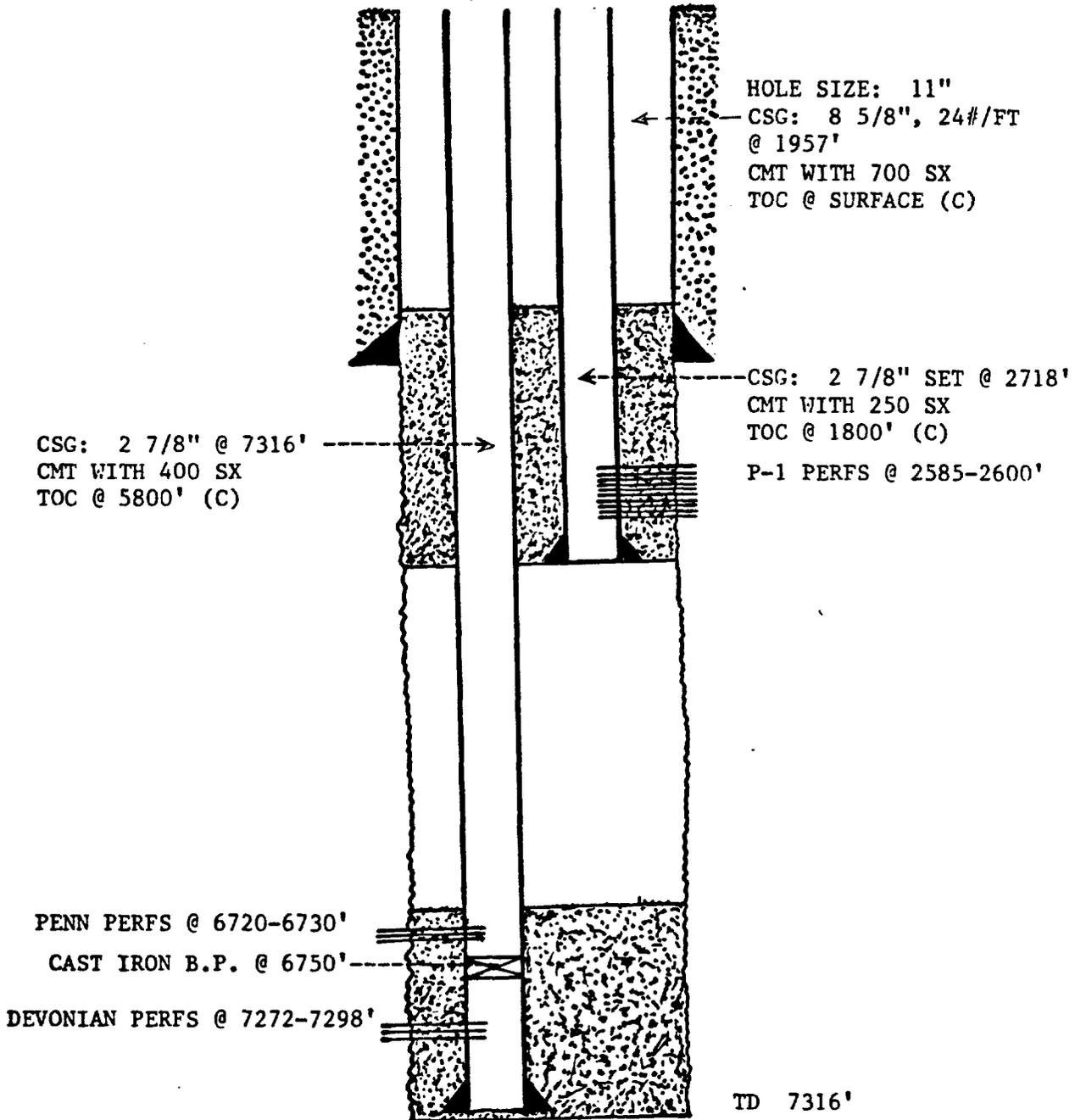
**CURRENT CONDITIONS
PELTO OIL COMPANY**

AT NMOCD HEARING
SEPTEMBER 9, 1987

TWIN LAKES SAN ANDRES UNIT NO. 74
FORMER LEASE & WELL NAME: O'Brien C #3

1980' FSL 1980' FWL

UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E



PROPOSED INJECTOR PELTO OIL COMPANY

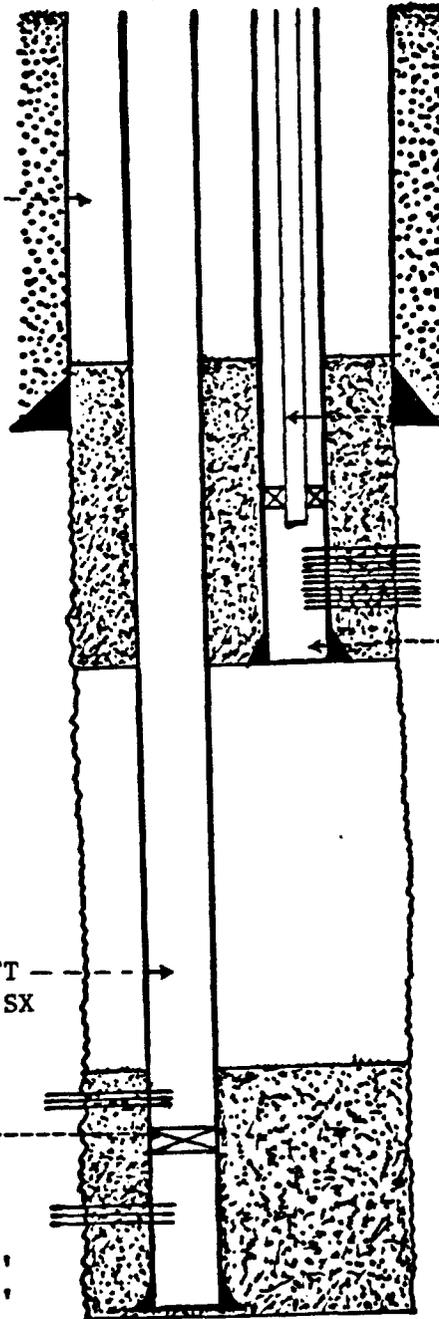
At NMOCD HEARING
SEPTEMBER 9, 1987

TWIN LAKES SAN ANDRES UNIT NO. 74
FORMER LEASE & WELL NAME: O'Brien C #3

THIS PROPOSAL WAS
DENIED BY DIRECTOR
OF NMOCD.

	1980' FSL	1980' FWL	
UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E

HOLE SIZE: 11"
CSG: 8 5/8" OD, 24#/FT -
@ 1957'.
CMT WITH 700 SX
TOC @ SURFACE (C)



1.9" OD, I.J., 2.4#/FT
FIBERGLASS LINED TBG WITH
PLASTIC COATED BAKER MODEL
AD-1 PKR @ 2483'
TOP OF P-1 @ 2558'
BASE OF P-2 @ 2661'
HOLE SIZE: 7 7/8"
CSG: 2 7/8" OD, 6.5# @ 2718'
CMT WITH 250 SX
TOC @ 1800' (C)

HOLE SIZE: 7 7/8"
CSG: 2 7/8" OD, 6.5#/FT -
@ 7316'. CMT WITH 400 SX
TOC @ 5800' (C)

PENN PERFS @ 6720-6730'
CAST IRON B.P. @ 6750'

DEVONIAN PERFS @ 7272-7298'
PBTD 6750'
TD 7316'

PBTD 2718'
TD 7316'

CURRENT CONDITIONS

AT NOVEMBER 1, 1988

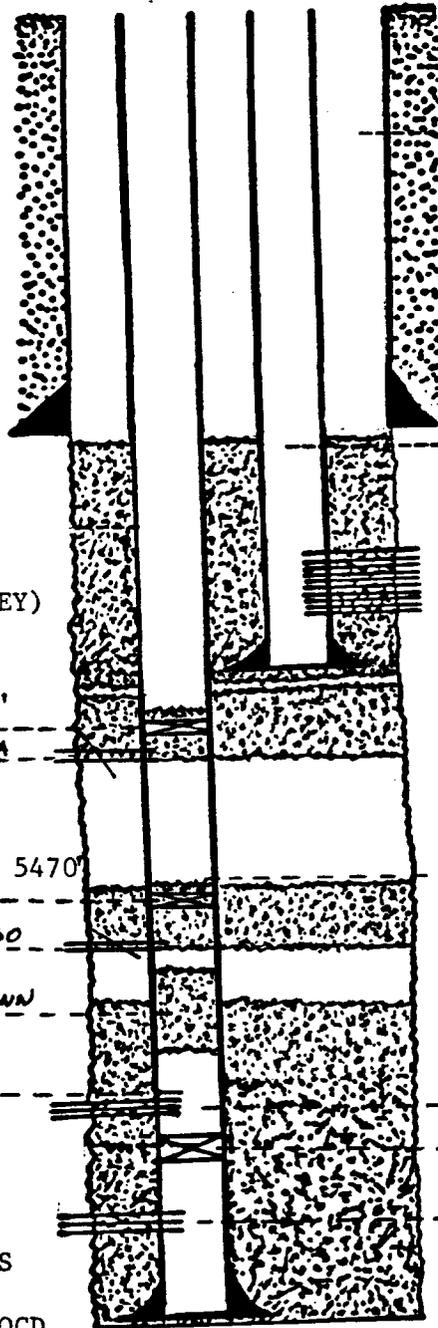
PELTO OIL COMPANY

TWIN LAKES SAN ANDRES UNIT NO. 74

FORMER LEASE & WELL NAME: O'Brien C #3

1980' FSL 1980' FWL

UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E



HOLE SIZE: 11"
 CSG: 8 5/8", 24#/FT
 @ 1957'
 CMT WITH 700 SX
 TOC @ SURFACE (C)

CSG: 2 7/8" SET @ 2718'
 CMT WITH 250 SX; TOC @ 1992',
 BTM CMT @ 2778' (BOND LOG)

P-1 PERFS @ 2585-2600'

CURRENT CONDITIONS

1. TOC OUTSIDE @ 2850' (TEMP SURVEY)
0. TOC INSIDE @ 3030' (TAGGED)
9. SQZD W/50 SX CLASS C CMT INTO 3184'
8. SET RETAINER 3080' -----
7. PERF 3184' 4 JSPF ----- *GLORIETTA*
6. TAGGED CMT INSIDE @ 5350',
 CALC 5347' OUTSIDE
5. SQZD W/50 SX CLASS C CMT INTO 5470'
4. SET RETAINER 5370' -----
3. PERF 5470' 4 JSPF ----- *ABO*
2. SPOTTED 20 SX CLASS C CMT ----- *PENN*
 5629-6484' (TAGGED)
1. LOADED HOLE W/10# GELLED -----
 BRINE MUD
 RAN TOC LOG 1992'-6276'

HOLE SIZE: 7-7/8"
 2-7/8" CSG SET @ 7316'. CMT W/400 SX,
 TOC 5800' (CALC). BOND LOG SHOWS
 SCATTERED CMT UP TO 5197'.

----- PENN PERFS @ 6720-6730'

----- CAST IRON B.P. @ 6750'

----- DEVONIAN PERFS @ 7272-7298'

TD 7316'

↑
 /7/88-4/12/88 PLUGGING OPERATIONS
 WITNESSED BY
 JOHNNY ROBINSON NMOCD

5/5/89

 DATE

R L Spottswood

 PREPARED BY: R. L. SPOTTSWOOD
 MANAGER OF ENGINEERING

JA REL SERVICES, INC.

TLSAU #74

POST OFFICE BOX 1654

PHONES 505 393-5396 — 393-8274

HOBBS, NEW MEXICO 88240

Well Testing Division

Instrument Service

TEMPERATURE SURVEY

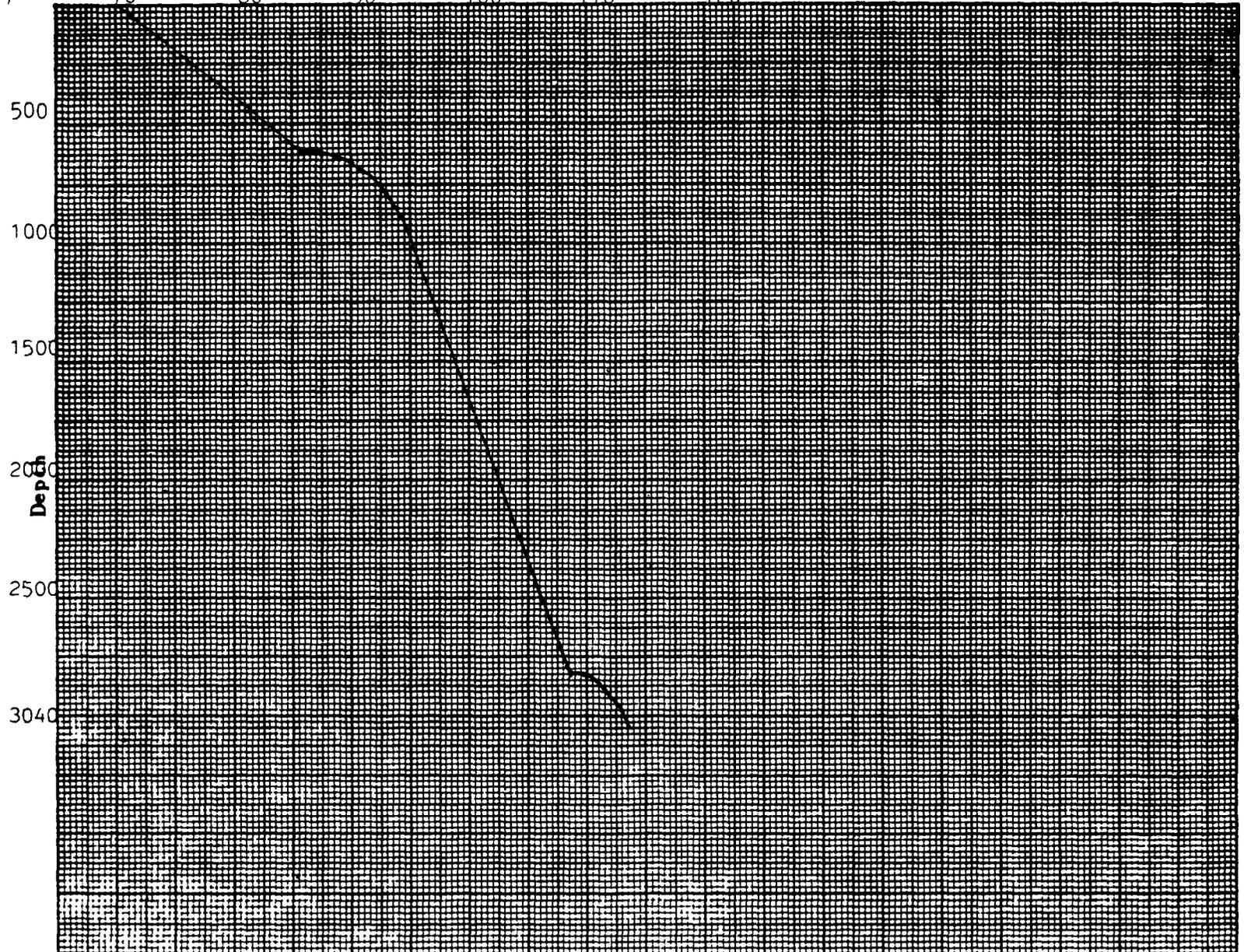
OPERATOR Pelto Oil Company
FIELD _____
LEASE O'Brian C WELL No. 3
DATE 4/12/88 TIME RUN _____
RECORDED BY Newman
WITNESSED BY Welton Moore
REMARKS: ---

PIPE SIZE 2 7/8" HOLE SIZE --
SET @ - TYPE STRING --
TIME PLUG DOWN --
CEMENTED BY --
ZERO POINT GL INST. NO. 555
CEMENT --

TOP CEMENT 2800'
MAX. DEPTH OF SURVEY 3040'

Temperature in Degrees F

70 80 90 100 110 120



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

Pelto Oil Company
 Twin Lakes (San Andres) Water Flood Unit
 Table C-108 VI
 Offset Wells to Unit #74 Proposed Injector

Unit #	Lease/Well No.	Unit Letter	T.D. (P.B.T.D.)	Type and Date Drilled	Hole Size	Casing Size	Casing Mt.	Casing Depth	Cement Volume	T.O.C. on Casing	Production Perfs	Remarks
<u>Section 1, T9S R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien C #1	M	7245' (7223')	Gas 5-28-63	15" 10-5/8" 7-7/8"	11-3/4" 8-5/8" 5-1/2"	42# 24#/32# 13.5# & 14#	685' 3450' 7245'	310 sx 2000 sx 1025 sx	Surface 60' (Calc.) 3805' (T.S.)	7180' -7205'	Devonian Producer. Never produced from San Andres.
Not in Unit	O'Brien C #4	L	7235' (6695')	Gas/Oil 10-28-74	11" 7-7/8"	8-5/8" 5-1/2"	28# 14# & 15.5#	1980' 7235'	870 sx 700 sx 400 sx	Surface 3198' (Calc.) 1702' (Calc.)	6694' -6700'	T.A. Bough C Well. San Andres pays sqzd off.
<u>Section 2, T9S, R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien B #3	I	7350' (7138')	Gas 9-29-69	17-1/2" 12-1/4" *	11-3/4" 8-5/8" 4-1/2"	42# 24# *	380' 2758' 7350'	350 sx 750 sx 500 sx	Surface 359' (Calc.) 4338' (Calc.)	2580' -2610' 7114' -7162'	Never Prod. from San Andres. T.A. Devonian
<u>Section 12, T9S, R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien D #1	D	7615' (2650')	D.H. 1-28-76	17" 12-1/4"	13-3/8" 8-5/8"	48# 24#	30' 1969'	50 sx 750 sx	Surface Surface	None	Plugged & Abandoned on 3-20-86
<u>Section 1, T9S R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien C #9	E	7468' (N/A)	Oil 12-27-88	12-1/4" 7-7/8"	8-5/8" 5-1/2"	24# 17#	1900' 7468'	700sx + 4.5yds 400 sx	Surface 4532' (Calc.)	7211' -7245.5'	Devonian Deep Test. Reported Tops: San Andres 1922' ABO 5374' Wolfcamp 6122' Cisco Bough C 6620' Miss. 6971' Devonian 7208'

Date 5/5/89

R. L. Spottswood

Prepared by: R. L. Spottswood
 Manager of Engineering

Devonian Deep Test.
 Reported Tops:
 San Andres 1922'
 ABO 5374'
 Wolfcamp 6122'
 Cisco Bough C 6620'
 Miss. 6971'
 Devonian 7208'

PRODUCING, OFFSET WELL IN DEVONIAN

STEVENS OIL CO.-OPERATOR

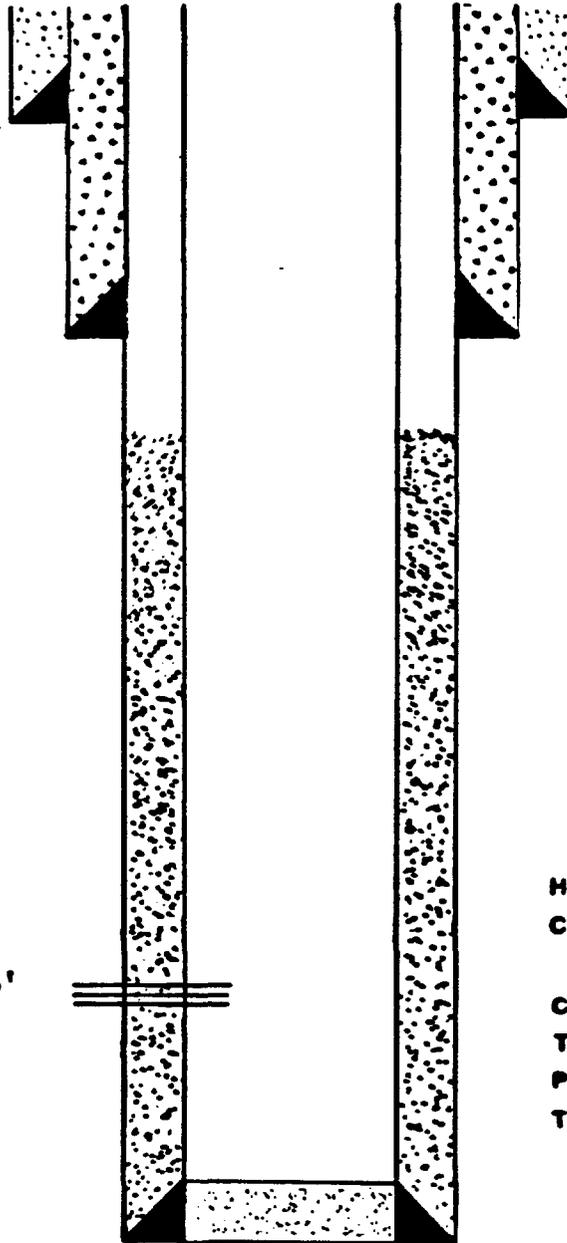
DRY HOLE IN SAN ANDRES

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO INJECT
HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien C #1

660' FSL 660' FWL

UNIT	SECTION	TOWNSHIP	RANGE
M	1	9S	28E



HOLE SIZE: 15"
CSG: 11 3/4" OD, 42#/FT
@ 685'. CMT W/310 SX
TOC @ SURFACE (CIRC)

HOLE SIZE: 10 5/8"
CSG: 8 5/8" OD, 32#/FT
@ 3450'. CMT W/2000 SX
TOC @ 60' (TEMP SURV).

DEVONIAN
PERFS @ 7180-7205'

HOLE SIZE 7 7/8"
CSG: 5 1/2 "OD
14 & 13.5 #/FT @ 7245'
CMT WITH 1025 SX
TOC @ 3805' (TEMP SURV)
PSTD 7223'
TD 7245'

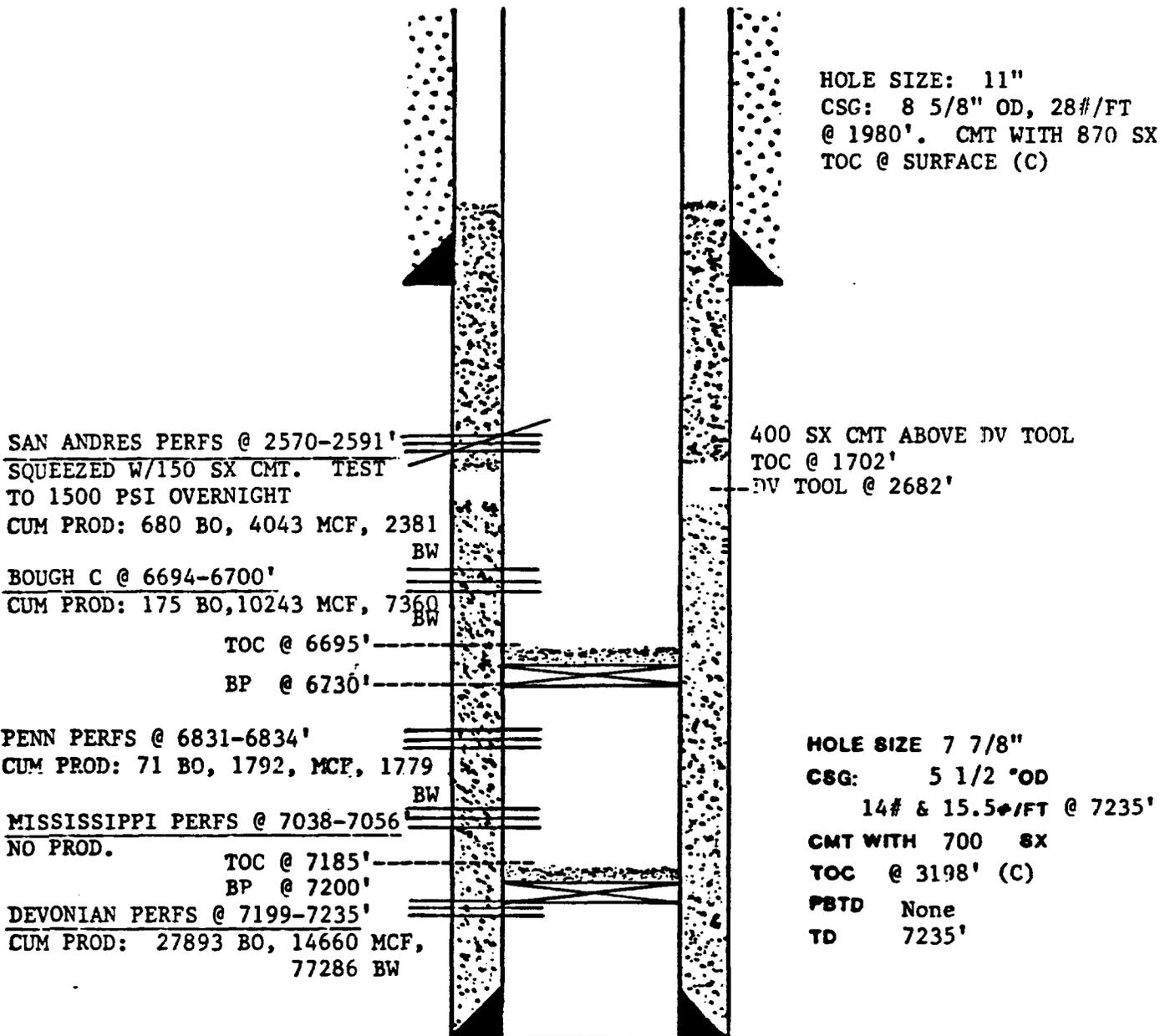
TEMPORARILY ABANDONED, OFFSET WELL

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO INJECT
HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien C #4

1980' FSL 745' FWL

UNIT	SECTION	TOWNSHIP	RANGE
L	1	9S	28E



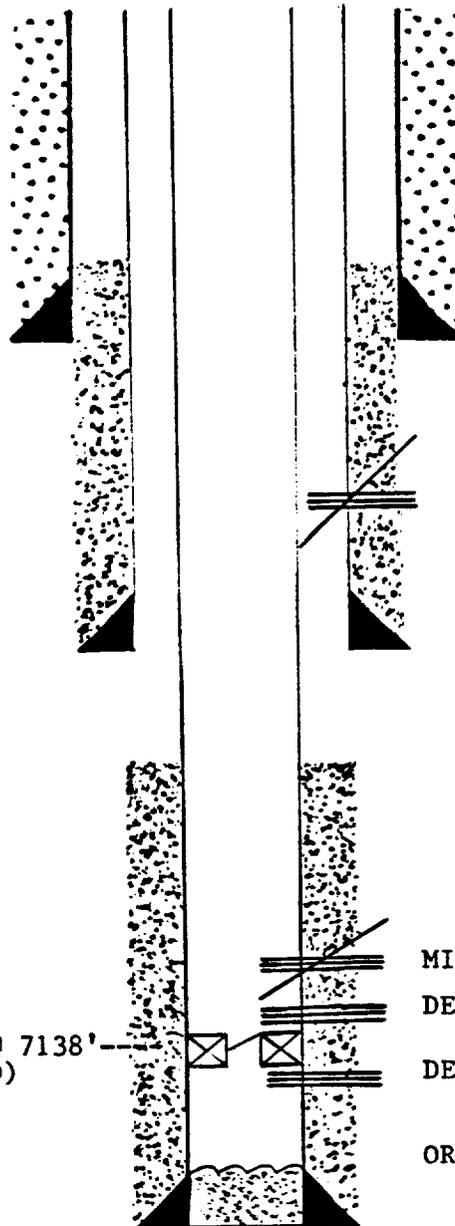
TEMPORARILY ABANDONED, OFFSET WELL

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO
INJECT.

HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien B #3
1980' FSL 660' FEL

UNIT	SECTION	TOWNSHIP	RANGE
I	2	9S	28E



HOLE SIZE 17 1/2"
CSG: 11 3/4" OD
42 #/FT
@ 380'
CMT WITH 350 SX
TOC @ SURFACE (C)

SAN ANDRES PERFS @ 2580-2616'
SQUEEZED W/25 SX THIXATROPIC
PERFS TESTED TO 1000# FOR 30 MIN

HOLE SIZE: 12 1/4"
CSG: 8 5/8" OD, 24# / FT
@ 2758'. CMT W/750 SX
TOC @ 359' (C)

MISSISSIPPI PERFS @ 6161.5-6173.5
DEVONIAN PERFS @ 7114-7120'
DEVONIAN PERFS @ 7147-7162'

CSG 4-1/2"
ORIG. PBTB 7235'. CMT W/500 SX CMT
TOC @ 4338' (C)
TD 7350'

TOP OF RETAINER @ 7138'
(CURRENT PBTB)

CURRENT CONDITIONS

PELTO OIL COMPANY

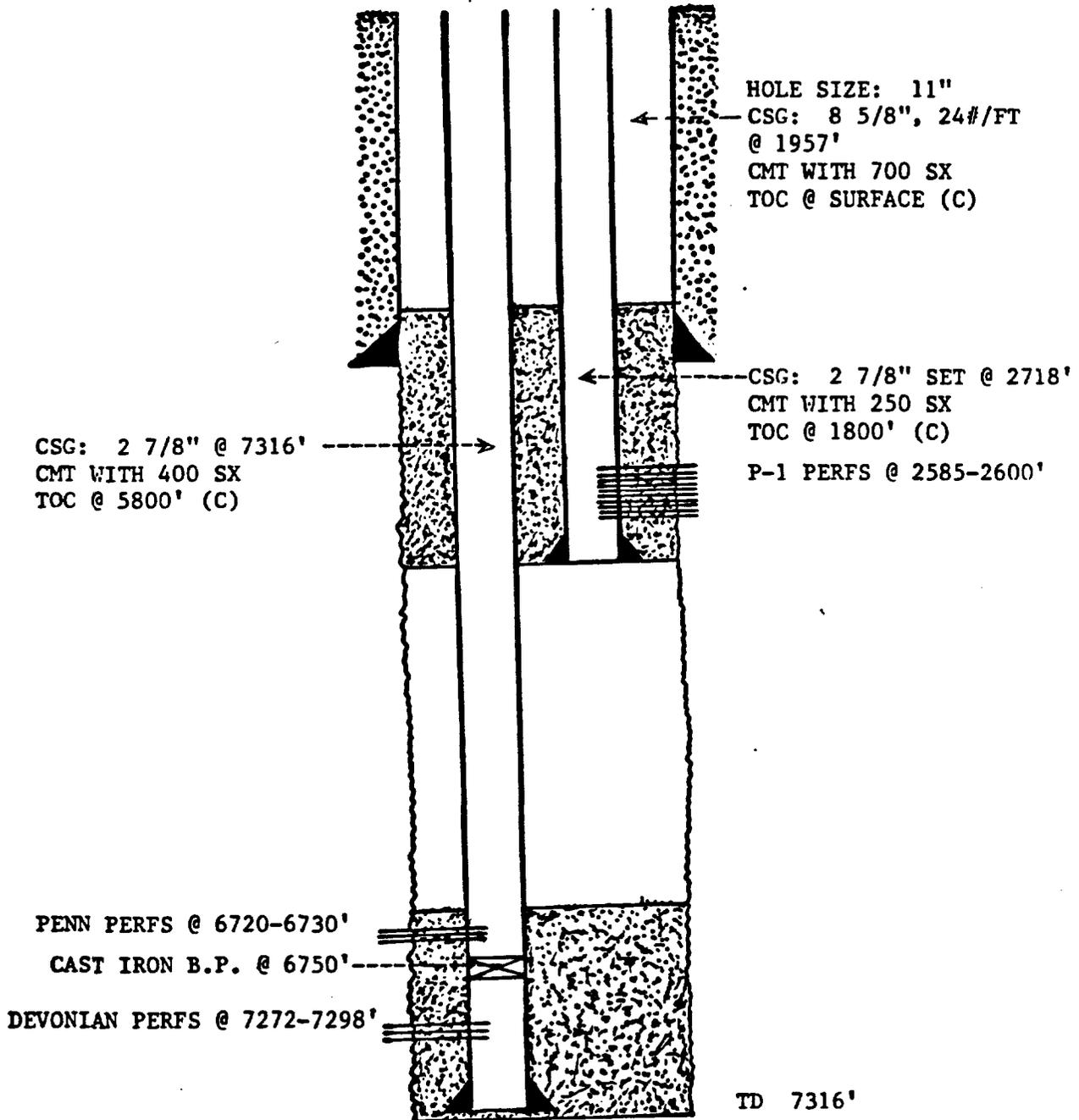
AT NMOCD HEARING
SEPTEMBER 9, 1987

TWIN LAKES SAN ANDRES UNIT NO. 74

FORMER LEASE & WELL NAME: O'Brien C #3

1980' FSL 1980' FWL

UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E



PROPOSED INJECTOR PELTO OIL COMPANY

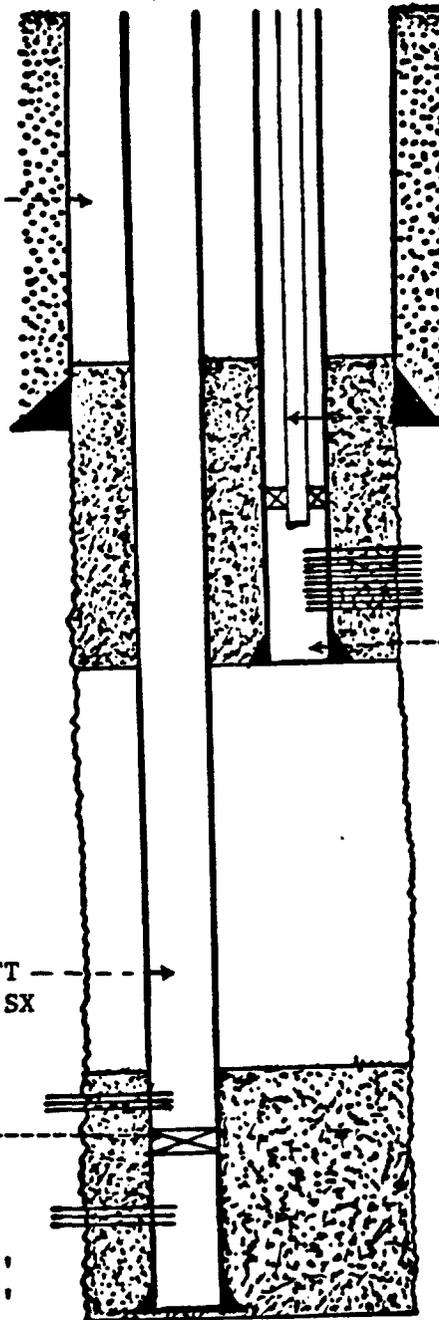
At NMOCD HEARING
SEPTEMBER 9, 1987

TWIN LAKES SAN ANDRES UNIT NO. 74
FORMER LEASE & WELL NAME: O'Brien C #3

THIS PROPOSAL WAS
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TOC @ SURFACE (C)



1.9" OD, I.J., 2.4#/FT
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HOLE SIZE: 7 7/8"
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@ 7316'. CMT WITH 400 SX
TOC @ 5800' (C)

PENN PERFS @ 6720-6730'
CAST IRON B.P. @ 6750'

DEVONIAN PERFS @ 7272-7298'

PBD 6750'
TD 7316'

PBD 2718'
TD 7316'

CURRENT CONDITIONS

AT NOVEMBER 1, 1988

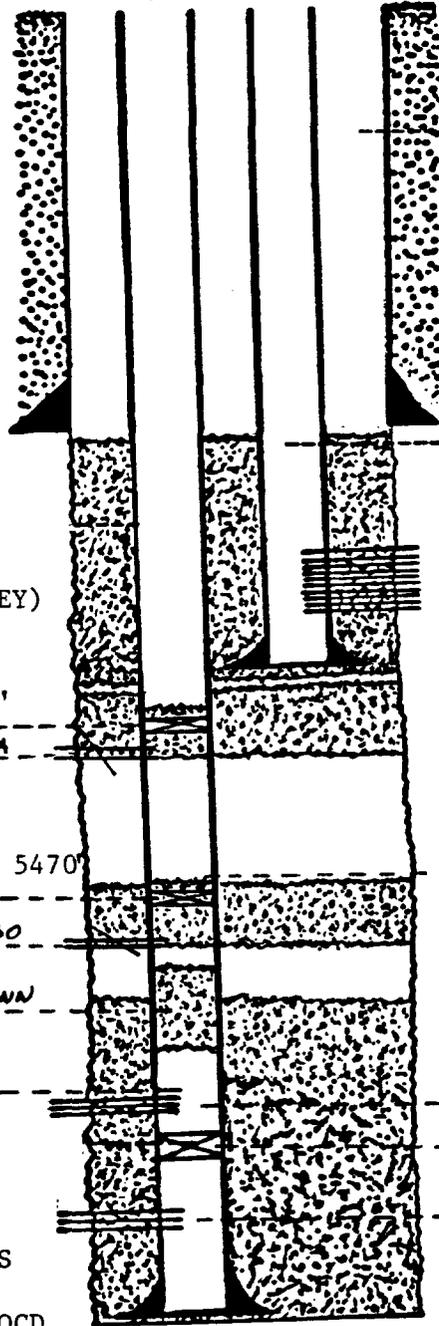
PELTO OIL COMPANY

TWIN LAKES SAN ANDRES UNIT NO. 74

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P-1 PERFS @ 2585-2600'

CURRENT CONDITIONS

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0. TOC INSIDE @ 3030' (TAGGED)
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7. PERF 3184' 4 JSPF ----- *GLORIETTA*
6. TAGGED CMT INSIDE @ 5350',
 CALC 5347' OUTSIDE
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4. SET RETAINER 5370' -----
3. PERF 5470' 4 JSPF ----- *ABO*
2. SPOTTED 20 SX CLASS C CMT ----- *PENN*
 5629-6484' (TAGGED)
1. LOADED HOLE W/10# GELLED -----
 BRINE MUD
 RAN TOC LOG 1992'-6276'

HOLE SIZE: 7-7/8"
 - 2-7/8" CSG SET @ 7316'. CMT W/400 SX,
 TOC 5800' (CALC). BOND LOG SHOWS
 SCATTERED CMT UP TO 5197'.

--- PENN PERFS @ 6720-6730'

--- CAST IRON B.P. @ 6750'

--- DEVONIAN PERFS @ 7272-7298'

TD 7316'

↑
 /7/88-4/12/88 PLUGGING OPERATIONS
 WITNESSED BY
 JOHNNY ROBINSON NMOCD

5/5/89

DATE

R. L. Spottswood
 PREPARED BY: R. L. SPOTTSWOOD
 MANAGER OF ENGINEERING

JA REL SERVICES, INC.

TL5AU #74

POST OFFICE BOX 1654

PHONES 505 393-5396 — 393-8274

HOBBS, NEW MEXICO 88240

Well Testing Division

Instrument Service

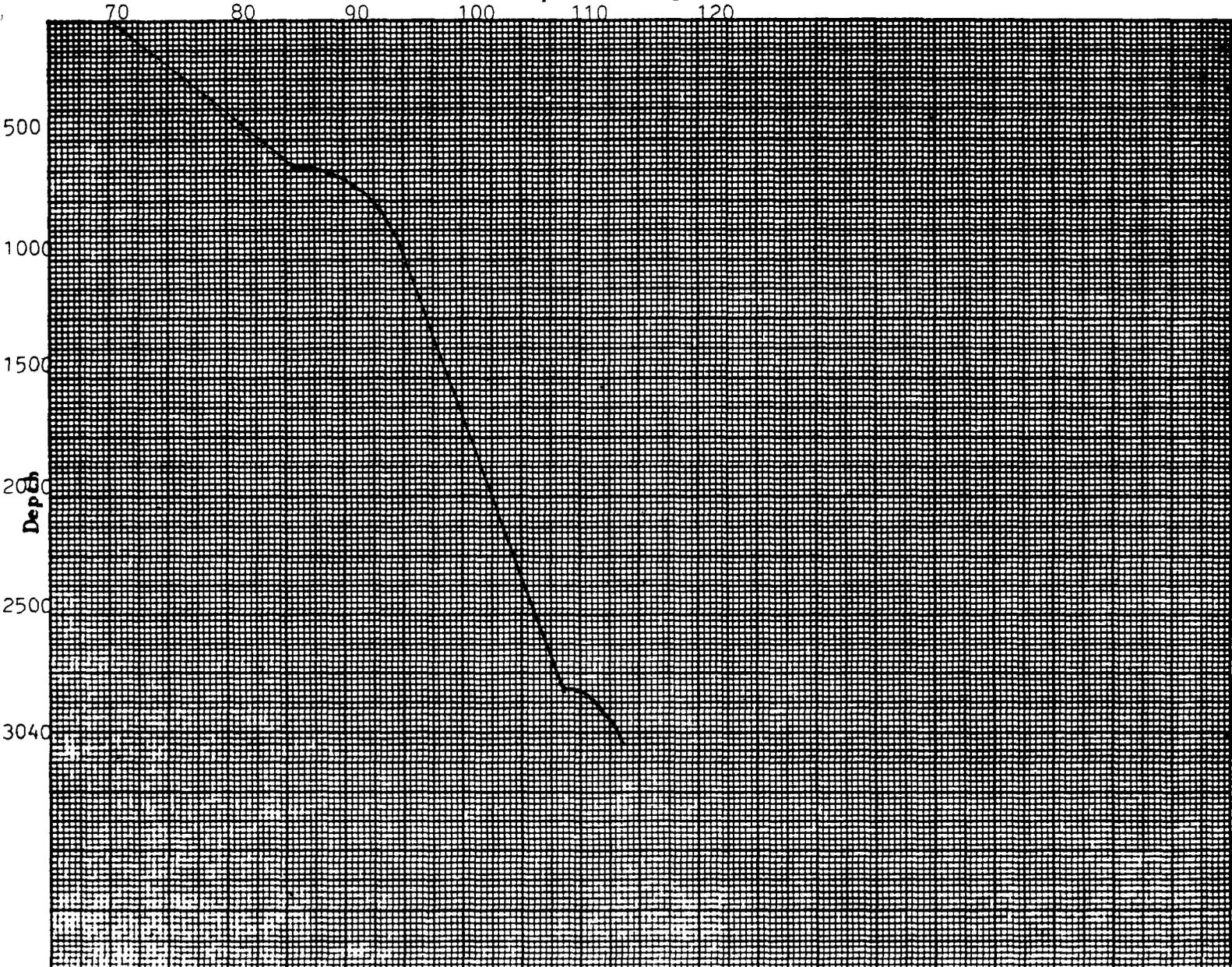
TEMPERATURE SURVEY

OPERATOR Pelto Oil Company
FIELD _____
LEASE O'Brian C WELL No. 3
DATE 4/12/88 TIME RUN _____
RECORDED BY Newman
WITNESSED BY Welton Moore
REMARKS: ---

PIPE SIZE 2 7/8" HOLE SIZE --
SET @ - TYPE STRING --
TIME PLUG DOWN --
CEMENTED BY --
ZERO POINT GL INST. NO. 555
CEMENT --

TOP CEMENT 2800'
MAX. DEPTH OF SURVEY 3040'

Temperature in Degrees F



PROPOSED WORKOVER

PELTO OIL COMPANY

TWIN LAKES SAN ANDRES UNIT NO. 74

FORMER LEASE & WELL NAME: O'Brien C #3

1980' FSL 1980' FWL

UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E

PROPOSED WORKOVER

1. SET CIBP @ 2550' (SHORT STRING)
2. DUMP 35' CLASS C CMT ON TOP
3. FILL 2-7/8" (LONG STRING) WITH CLASS C CMT FROM 3030'-2600' CIRC CLEAN TO 2700'
4. PERFORATE 2585'-2611'
 - TOP P₁ 2559'
 - BASE P₂ 2662'

HOLE SIZE: 11"
 CSG: 8 5/8", 24#/FT @ 1957'
 CMT WITH 700 SX
 TOC @ SURFACE (C)

STUCK S.N. & RETRIEVING TOOL @ 2556'

CSG: 2 7/8" SET @ 2718'
 CMT WITH 250 SX; TOC @ 1992',
 BTM CMT @ 2778' (BOND LOG)
 P-1 PERFS @ 2585-2600'

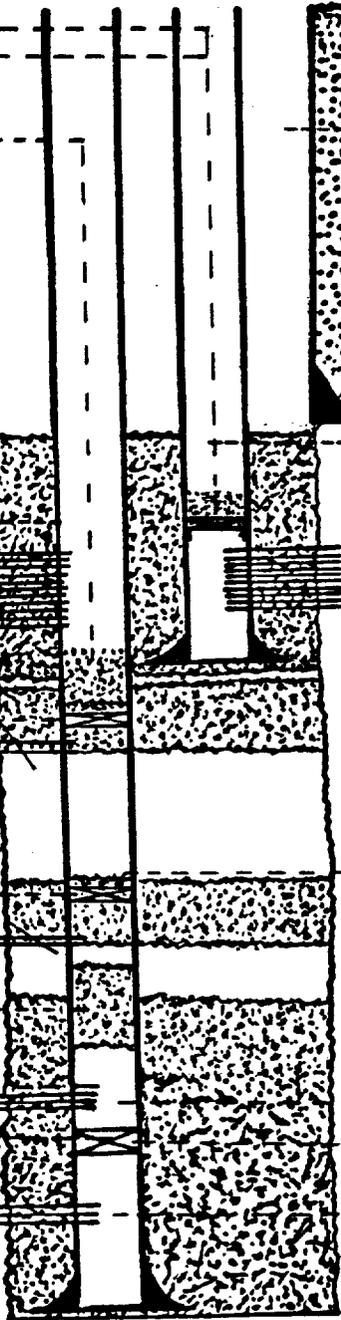
CURRENT CONDITIONS

1. TOC OUTSIDE @ 2850' (TEMP SURVEY)
0. TOC INSIDE @ 3030' (TAGGED)
9. SQZD W/50 SX CLASS C CMT INTO 3184'
8. SET RETAINER 3080'
7. PERF 3184' 4 JSPF --- *GLORIETTA*
6. TAGGED CMT INSIDE @ 5350', CALC 5347' OUTSIDE
5. SQZD W/50 SX CLASS C CMT INTO 5470'
4. SET RETAINER 5370'
3. PERF 5470' 4 JSPF --- *ABO*
2. SPOTTED 20 SX CLASS C CMT --- *PENN* 5629-6484' (TAGGED)
1. LOADED HOLE W/10# GELLED BRINE MUD RAN TOC LOG 1992'-6276'

HOLE SIZE: 7-7/8"
 2-7/8" CSG SET @ 7316'. CMT W/400 SX, TOC 5800' (CALC). BOND LOG SHOWS SCATTERED CMT UP TO 5197'.

--- PENN PERFS @ 6720-6730'
 --- CAST IRON B.P. @ 6750'
 --- DEVONIAN PERFS @ 7272-7298'

TD 7316'



17/88-4/12/88 PLUGGING OPERATIONS
 WITNESSED BY
 JOHNNY ROBINSON NMOCD

5/5/89

 DATE

R. L. Spottswood

 PREPARED BY: R. L. SPOTTSWOOD
 MANAGER OF ENGINEERING

PROPOSED INJECTOR

PELTO OIL COMPANY

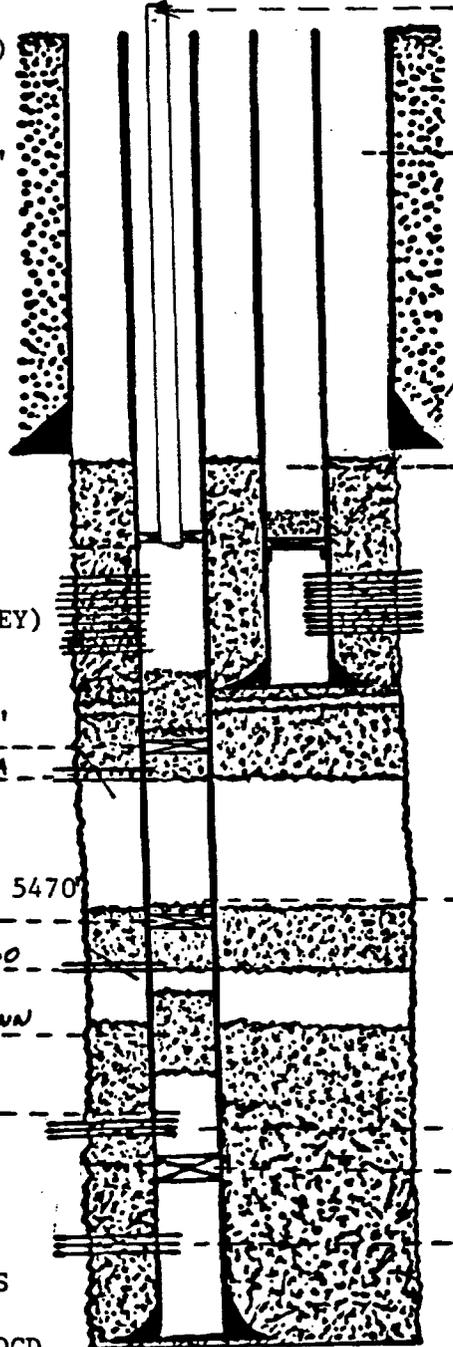
TWIN LAKES SAN ANDRES UNIT NO. 74
FORMER LEASE & WELL NAME: O'Brien C #3
 1980' FSL 1980' FWL

UNIT	SECTION	TOWNSHIP	RANGE
K	1	9S	28E

AFTER

PROPOSED WORKOVER

1. SET CIBP @ 2550' (SHORT STRING)
2. DUMP 35' CLASS C CMT ON TOP
3. FILL 2-7/8" (LONG STRING) WITH CLASS C CMT FROM 3030'-2600' CIRC CLEAN TO 2700'
4. PERFORATE 2585'-2611'
 - TOP P₁ 2559'
 - BASE P₂ 2662'



-1.5", 1.75# PLASTIC COATED TUBING
 -GUIBERSON PKR. @ 2550' (COATED)

HOLE SIZE: 11"
 CSG: 8 5/8", 24#/FT @ 1957'
 CMT WITH 700 SX
 TOC @ SURFACE (C)

-STUCK S.N. & RETRIEVING TOOL @ 2556'

CSG: 2 7/8" SET @ 2718'
 CMT WITH 250 SX; TOC @ 1992',
 BTM CMT @ 2778' (BOND LOG)

P-1 PERFS @ 2585-2600'

1. TOC OUTSIDE @ 2850' (TEMP SURVEY)
0. TOC INSIDE @ 3030' (TAGGED)
9. SQZD W/50 SX CLASS C CMT INTO 3184'
8. SET RETAINER 3080' -----
7. PERF 3184' 4 JSPF ----- *GLORIETTA*
6. TAGGED CMT INSIDE @ 5350',
 CALC 5347' OUTSIDE
5. SQZD W/50 SX CLASS C CMT INTO 5470'
4. SET RETAINER 5370' -----
3. PERF 5470' 4 JSPF ----- *ABO*
2. SPOTTED 20 SX CLASS C CMT ----- *PENN*
 5629-6484' (TAGGED)
1. LOADED HOLE W/10# GELLED -----
 BRINE MUD
 RAN TOC LOG 1992'-6276'

HOLE SIZE: 7-7/8"
 - 2-7/8" CSG SET @ 7316'. CMT W/400 SX,
 TOC 5800' (CALC). BOND LOG SHOWS
 SCATTERED CMT UP TO 5197'.

--- PENN PERFS @ 6720-6730'
 --- CAST IRON B.P. @ 6750'

--- DEVONIAN PERFS @ 7272-7298'

TD 7316'

↑
 7/88-4/12/88 PLUGGING OPERATIONS
 WITNESSED BY
 JOHNNY ROBINSON NMOCD

5/5/89

R. L. Spottswood

DATE

PREPARED BY: R. L. SPOTTSWOOD
 MANAGER OF ENGINEERING

PELTO OIL COMPANY
TWIN LAKES (SAN ANDRES) WATERFLOOD UNIT

TABLE C-108 III-A

PROPOSED INJECTOR UNIT #74

New Unit Number: 74

Former Lease and Well Number: O'Brien C-#3

Unit Letter: K

Location Footage: 1980' FSL 1980' FWL of
Section 1, T9S, R28E, Chaves County, New Mexico

T.D.: 7316'

P.B.T.D.: 2525' in short string, 2700' in long string

Well Type and Date Drilled: Oil, 1-8-73

Hole size:	11"	<u>7-7/8"</u>	
Casing size:	8-5/8"	2-7/8"	2-7/8"
Casing weight:	24#	6.5#	6.5#
Casing depth:	1957'	7316'	2718'
Cement:	700 sx	400 sx	250 sx
Top of Cement:	Surface	5800' (calc)	1992' (Bond log)
		Bond log shows scattered cmt to 5197'	

Proposed tubing/packer depth: 2550'

Proposed injection interval: 2585' - 2611' (San Andres)

Proposed Operation: Will inject at an average rate of 300 barrels daily of Ogallala and/or produced water which will be kept separate at surface through the closed injection system. Maximum injection pressure = 510 psig (0.2 psi/ft limit).

5/5/89
Date

R. L. Spottswood
Prepared by: R. L. Spottswood
Manager of Engineering

Pelto Oil Company
 Twin Lakes (San Andres) Water Flood Unit
 Table C-108 VI
 Offset Wells to Unit #74 Proposed Injector

Unit #	Lease/Well No.	Unit Letter	T.D. (P.B.T.D.)	Type and Date Drilled	Hole Size	Casing Size	Wt.	Casing Depth	Cement Volume	T.O.C. on Casing	Production Perfs	Remarks
<u>Section 1, T9S R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien C #1	M	7245' (7223')	Gas 5-28-63	15" 10-5/8"	11-3/4" 8-5/8"	42# 24#/32#	685' 3450'	310 sx 2000 sx	Surface 60' (Calc.)	7180'-7205'	Devonian Producer. Never produced from San Andres.
Not in Unit	O'Brien C #4	L	7235' (6695')	Gas/Oil 10-28-74	11" 7-7/8"	8-5/8" 5-1/2"	28# 14# & 15.5#	1980' 7235'	870 sx 700 sx	Surface 3198' (Calc.)	6694'-6700'	T.A. Bough C Well. San Andres pays sqzd off
<u>Section 2, T9S, R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien B #3	I	7350' (7138')	Gas 9-29-69	17-1/2" 12-1/4"	11-3/4" 8-5/8"	42# 24#	380' 2758'	350 sx 750 sx	Surface 359' (Calc.)	2580'-2610' 7114'-7162'	Never Prod. from San Andres. T.A. Devonian
<u>Section 12, T9S, R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien D #1	D	7615' (2650')	D.H. 1-28-76	17" 12-1/4"	13-3/8" 8-5/8"	48# 24#	30' 1969'	50 sx 750 sx	Surface Surface	None	Plugged & Abandoned on 3-20-86
<u>Section 1, T9S R28E, Chaves County, New Mexico</u>												
Not in Unit	O'Brien C #9	E	7468' (N/A)	Oil 12-27-88	12-1/4" 7-7/8"	8-5/8" 5-1/2"	24# 17#	1900' 7468'	700sx + 4.5yds 400 sx	Surface 4532' (Calc.)	7211'-7245.5'	Devonian Deep Test. Reported Tops: San Andres 1922' ABO 5374' Wolfcamp 6122' Cisco Bough C 6620' Miss. 6971' Devonian 7208'

Date 5/5/89
 B:102

Prepared by: R. L. Spottswood
 Manager of Engineering

R. L. Spottswood

PRODUCING, OFFSET WELL IN DEVONIAN

STEVENS OIL CO.-OPERATOR

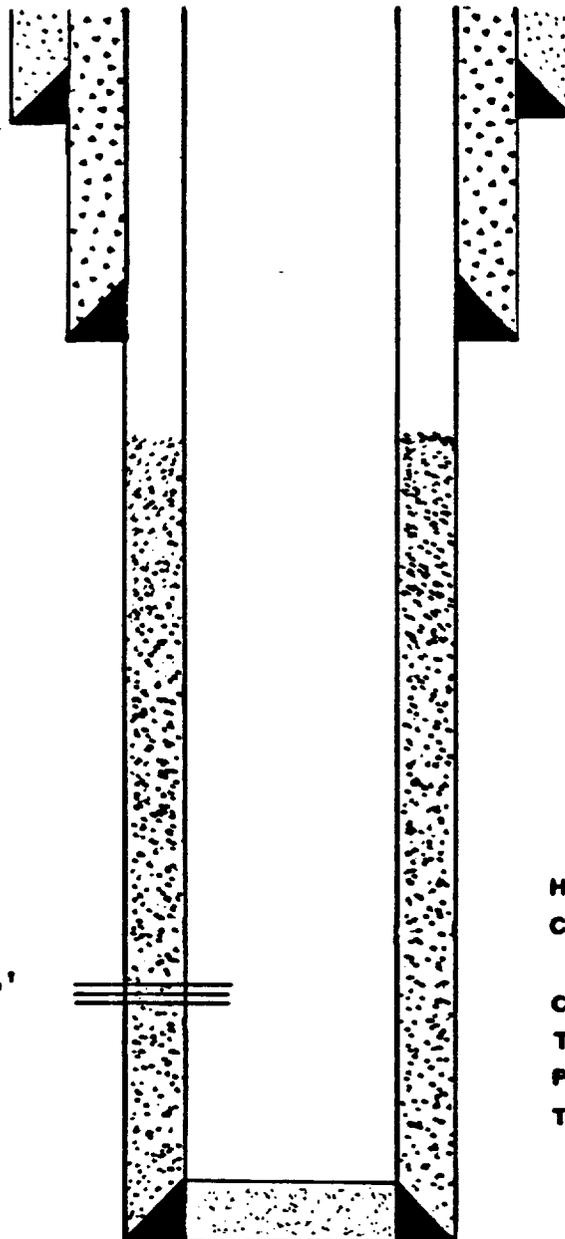
DRY HOLE IN SAN ANDRES

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO INJECT
HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien C #1

660' FSL 660' FWL

UNIT	SECTION	TOWNSHIP	RANGE
M	1	9S	28E



HOLE SIZE: 15"
CSG: 11 3/4" OD, 42#/FT
@ 685'. CMT W/310 SX
TOC @ SURFACE (CIRC)

HOLE SIZE: 10 5/8"
CSG: 8 5/8" OD, 32#/FT
@ 3450'. CMT W/2000 SX
TOC @ 60' (TEMP SURV).

DEVONIAN
PERFS @ 7180-7205'

HOLE SIZE 7 7/8"
CSG: 5 1/2 "OD
14 & 13.5 #/FT @ 7245'
CMT WITH 1025 SX
TOC @ 3805' (TEMP SURV)
PBD 7223'
TD 7245'

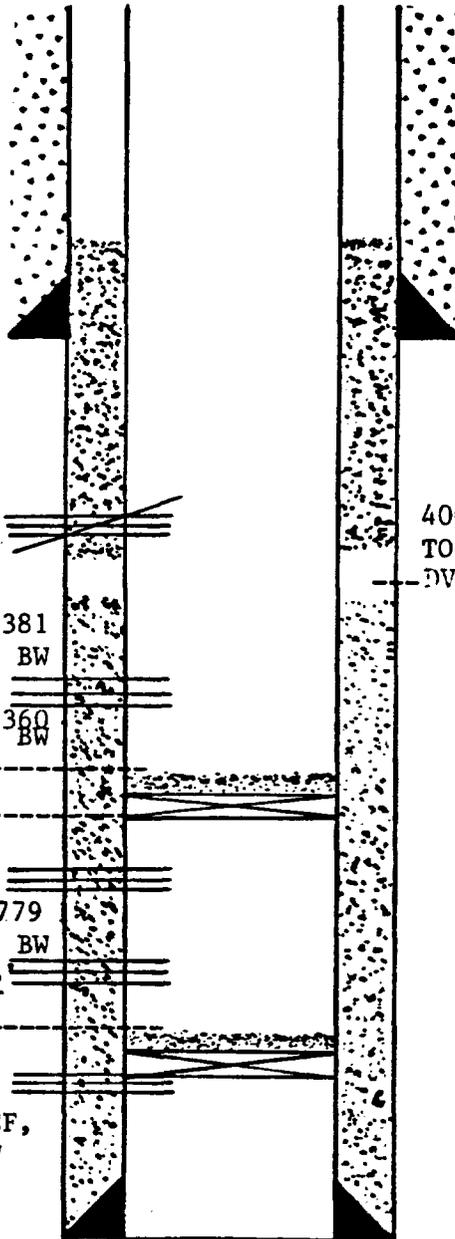
TEMPORARILY ABANDONED, OFFSET WELL

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO INJECT
HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien C #4

1980' FSL 745' FWL

UNIT	SECTION	TOWNSHIP	RANGE
L	1	9S	28E



SAN ANDRES PERFS @ 2570-2591'
SQUEEZED W/150 SX CMT. TEST
TO 1500 PSI OVERNIGHT
CUM PROD: 680 BO, 4043 MCF, 2381

BW

BOUGH C @ 6694-6700'
CUM PROD: 175 BO, 10243 MCF, 7360

BW

TOC @ 6695'

BP @ 6730'

PENN PERFS @ 6831-6834'
CUM PROD: 71 BO, 1792, MCF, 1779

BW

MISSISSIPPI PERFS @ 7038-7056
NO PROD.

TOC @ 7185'

BP @ 7200'

DEVONIAN PERFS @ 7199-7235'
CUM PROD: 27893 BO, 14660 MCF,
77286 BW

HOLE SIZE: 11"
CSG: 8 5/8" OD, 28#/FT
@ 1980'. CMT WITH 870 SX
TOC @ SURFACE (C)

400 SX CMT ABOVE DV TOOL
TOC @ 1702'
DV TOOL @ 2682'

HOLE SIZE 7 7/8"
CSG: 5 1/2" OD
14# & 15.5#/FT @ 7235'
CMT WITH 700 SX
TOC @ 3198' (C)
PBTD None
TD 7235'

TEMPORARILY ABANDONED, OFFSET WELL

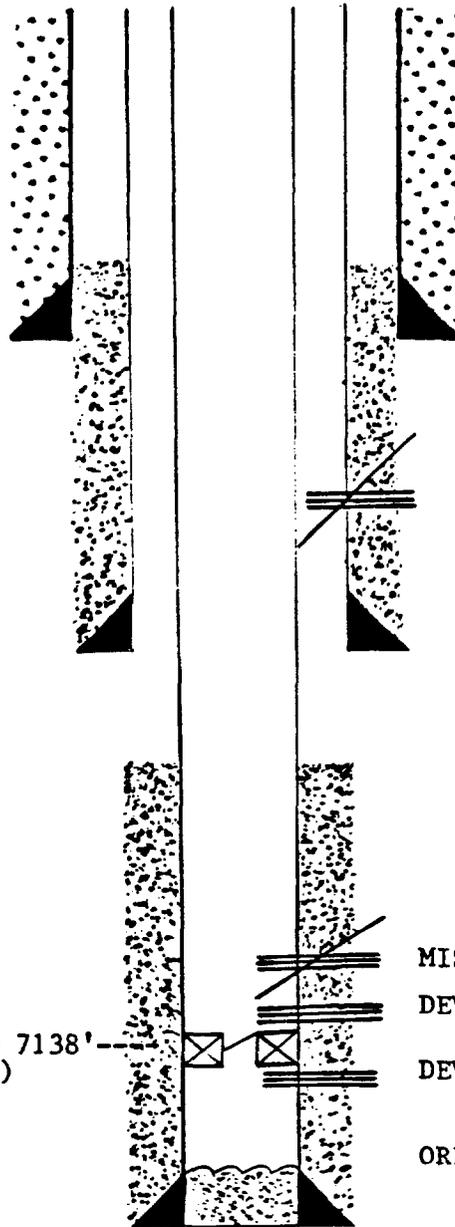
SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO
INJECT.

HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien B #3

1980' FSL 660' FEL

UNIT	SECTION	TOWNSHIP	RANGE
I	2	9S	28E



HOLE SIZE 17 1/2"
CSG: 11 3/4" OD
42 #/FT
@ 380'
CMT WITH 350 SX
TOC @ SURFACE (C)

SAN ANDRES PERFS @ 2580-2616'
SQUEEZED W/25 SX THIXATROPIC
PERFS TESTED TO 1000# FOR 30 MIN

HOLE SIZE: 12 1/4"
CSG: 8 5/8" OD, 24#/FT
@ 2758'. CMT W/750 SX
TOC @ 359' (C)

MISSISSIPPI PERFS @ 6161.5-6173.5
DEVONIAN PERFS @ 7114-7120'
DEVONIAN PERFS @ 7147-7162'

CSG 4-1/2"
ORIG. PBTD 7235'. CMT W/500 SX CMT
TOC @ 4338' (C)
TD 7350'

TOP OF RETAINER @ 7138'
(CURRENT PBTD)

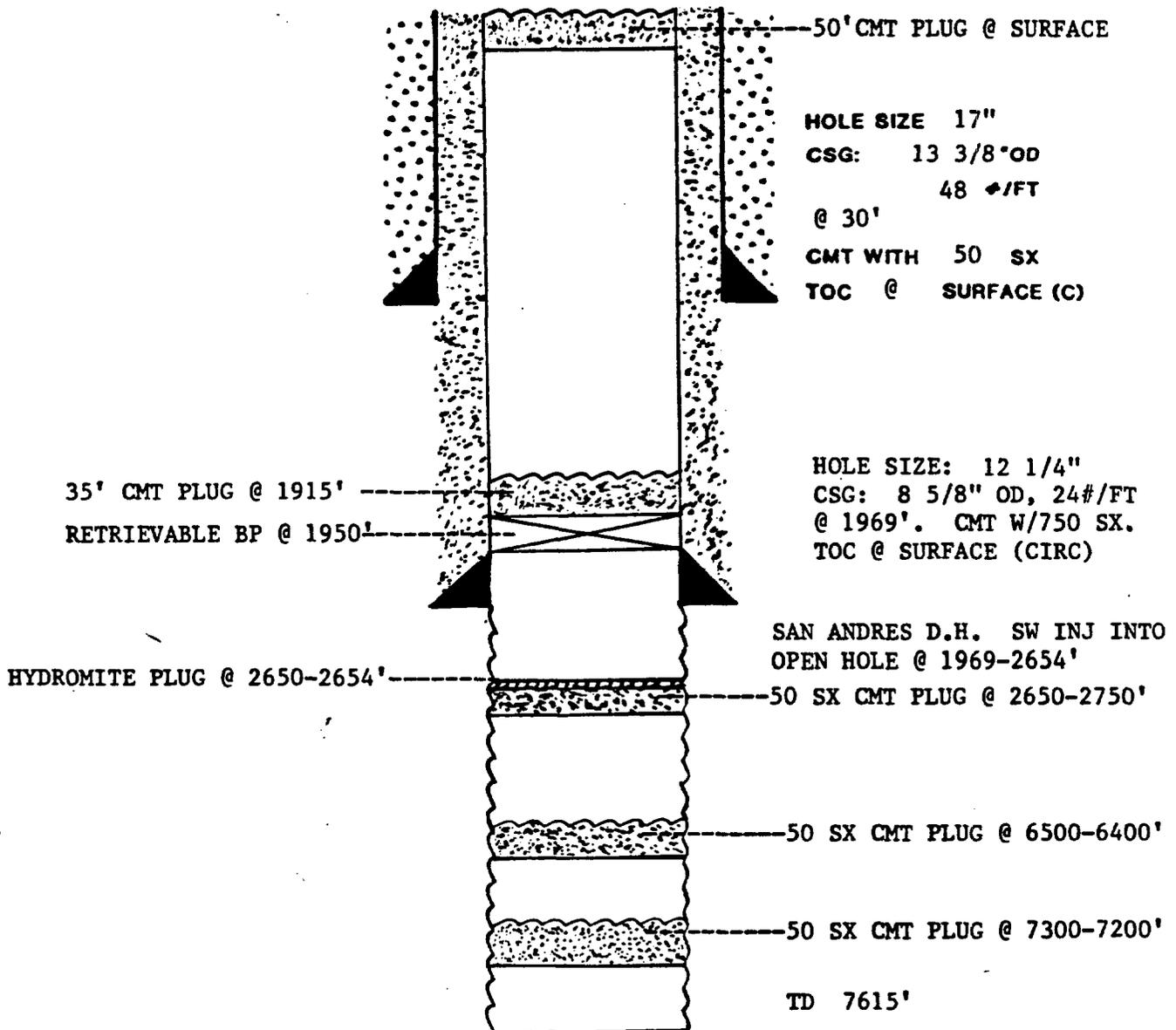
PLUG & ABANDONED, OFFSET WELL

SUBMITTED WITH
ORIGINAL FORM C-108
APPLICATION FOR
AUTHORIZATION TO INJECT
HEARING HELD 9/9/87

LEASE & WELL NAME: O'Brien D #1 (SWD)

460' FNL 660' FWL

UNIT	SECTION	TOWNSHIP	RANGE
D	12	9S	28E





CERTIFIED - RETURN RECEIPT

May 5, 1989

Stevens Oil Company
P. O. Box 2408
Roswell, NM 88201

RE: Notification of Filing
Application for Waterflood Expansion
Twin Lakes San Andres Field
Chaves County, New Mexico

Gentlemen:

You are the owner of an interest in properties which are located within a one-half mile radius of wells which are proposed to be converted to injection wells under expansion of the captioned waterflood project.

Pelto has made application to the New Mexico Oil Conservation Division for administrative approval to expand the Twin Lakes San Andres Waterflood Project by conversion of three additional wells to water injectors. In accordance with New Mexico statutes, Pelto is hereby notifying you of this application and is furnishing you herewith complete copies of the C-108 forms, with attached exhibits, which are being filed in connection with Pelto's application.

Very truly yours,

PELTO OIL COMPANY

A handwritten signature in cursive script that reads "R. L. Spottswood".

R. L. Spottswood
Manager of Engineering

RLS:BH:jm:J107/53



CERTIFIED - RETURN RECEIPT

May 5, 1989

Frates Seeligson
1604 National Bank Commerce Building
San Antonio, TX 78205

RE: Notification of Filing
Application for Waterflood Expansion
Twin Lakes San Andres Field
Chaves County, New Mexico

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PELTO OIL COMPANY

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R. L. Spottswood
Manager of Engineering

RLS:BH:jm:J107/53



CERTIFIED -- RETURN RECEIPT

May 5, 1989

Mobil Producing, Texas & New Mexico, Inc.
Nine Greenway Plaza - Suite 2700
Houston, TX 77046

RE: Notification of Filing
Application for Waterflood Expansion
Twin Lakes San Andres Field
Chaves County, New Mexico

Gentlemen:

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PELTO OIL COMPANY

A handwritten signature in cursive script, appearing to read 'R. L. Spottswood'.

R. L. Spottswood
Manager of Engineering

RLS:BH:jm:J107/53

5/12/89

RECEIVED

ST. OF NEW MEXICO
OIL CONSERVATION DIVISION
PO BOX 2088
SANTA FE NM 87504-2088

MAY 22 1989

OIL CONSERVATION DIV.
SANTA FE

MR. DAVID R. CATANACH

SIR, ENCLOSED IS THE NOTICE AND AFFIDAVIT
OF PUBLICATION IN THE ROSWELL DAILY RECORD
OF PETTO OIL CO. REQUEST FOR APPROVAL
TO INJECT WATER IN (3) THREE WELLS
IN THE TWIN LAKES WATER FLOOD UNIT
LOCATED IN CHAVEZ CO. NEW MEXICO.
RE: LETTER FROM MR. BOB SPOTSWOOD.
DATED 5/5/89. (ORDER # R-8611, RULE
701-F4)

WELLS: UNIT Well #1
UNIT Well #74
PETTO KUCHMANN Well #2

Thank you
Jack Yane

AFFIDAVIT OF PUBLICATION

County of Chaves }
State of New Mexico, }

I, Jean M. Pettit
Manager,

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

of once

weeks

beginning with the issue dated 10th

May, 1989

and ending with the issue dated 10th

May, 1989

Jean M. Pettit
Manager

Sworn and subscribed to before me

this 10th day of

May, 1989

Marylou S. Skipes
Notary Public

My commission expires

July 21, 1990

(Seal)

Publish May 10, 1989

NOTICE OF PUBLICATION

Pelto Oil Company
One Allen Center
Suite 1800
500 Dallas Street
Houston, TX 77002

CONTACT PARTY:

Robert L. Spottswood
Manager of Engineering
(713) 651-1800

Pelto Oil Company has applied to the New Mexico Oil Conservation Division for administrative approval under Rule 701.F4 to expand the Twin Lakes San Andres Waterflood Project (Chaves County, New Mexico) (O.C.D. Order No. R-8611) by the conversion of three additional wells to water injection. Ogallala and/or produced waters will be injected into the San Andres formation.

Unit Well #1:

2310' FNL and 2310' FWL, Section 25, T8S, R28E, Chaves County, New Mexico. Anticipate maximum injection rate of 500 barrels of water per day at 510 psig, maximum surface pressure into perforated interval 2566' to 2666'.

Unit Well #74:

1980' FSL and 1980' FWL, Section 1, T9S, R28E, Chaves County, New Mexico. Anticipate maximum injection rate of 300 barrels of water per day at 510 psig maximum surface pressure into perforated interval 2585' to 2611'.

Pelto Kuchemann Well #2:

2310' FNL and 660' FWL, Section 30, T8S, R29E, Chaves County, New Mexico. Anticipate maximum injection rate of 300 barrels of water per day at 520 psig maximum surface pressure into perforated interval 2613' to 2717'.

Any objections or requests for hearing must be filed with the Oil Conservation Division, P. O. Box 2088, Santa Fe, NEW MEXICO 87504-2088, within 15 days.

Legal DEPARTMENT

Roswell Daily Record

P.O. BOX 1897

ROSWELL, N.M. 88202-1897

622-7710

PLEASE DETACH AND RETURN
THIS STUB WITH PAYMENT.

0: Pelto	
PHONE NUMBER	RUN DATES
51-1800	05/10 05/10
PAY THIS AMOUNT	
n: 6	Tr: 1
\$ 17.72	
EGALS	Lines: 62

Pelto Oil Co.
P.O. Box 1417
Roswell, NM.
88201



lo. 082916

No. 082916

DATE	LINES AT \$	AMOUNT PER LINE
/10/89	62 lines @.27	16.74
		Tax .98
		Total 17.72

Schlumberger

CEMENT TOP LOG

CSU

Field Log

COMPANY: PELTO OIL COMPANY

WELL: O'BRIEN "C" #3

TL SAK #74

FIELD: TWIN LAKES
COUNTY: CHAVES
STATE: NEW MEXICO

LOCATION: K-1980' FSL & 1980' FWL

SEC: 1 TWP: 9-S RGE: 28-E

PERMANENT DATUM:	G.L.	ELEVATIONS-
ELEV. OF PERM. DATUM:	3944.0 F	KB: 3951.0 F
LOG MEASURED FROM:	K.B.	DF: 0.0 F
7.0 F ABOVE PERM. DATUM		GL: 3944.0 F
DRLG. MEASURED FROM:	K.B.	

DATE: 16 MAR 88
RUN NO:

DEPTH-DRILLER: 6280.0 F
DEPTH-LOGGER: 6276.0 F
BTM. LOG INTERVAL: 6273.0 F
TOP LOG INTERVAL: 2000.0 F

CASING-DRILLER:	0.0 F	0.0 F	0.0
CASING-LOGGER:	0.0 F	0.0 F	0.0
CASING:	2 7/8"		
WEIGHT:	6.5000 LB/F	0.0	LB/F 0.0
BIT SIZE:			