5-10-95

PEAK
CONSULTING SERVICES
ENVIRONMENTAL,
GEOLOGICAL & REGULATORY
SPECIALISTS

P.O. BOX 636
HOBBS, NEW MEXICO 88240
OFFICE (505) 392-1915

PCS

April 21, 1995

Mr. Ben Stone
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Avra Oil Company
O'Brien P No. 1
Injection Application
Sec. 28 - T8S - R29E
Chaves County, New Mexico

Dear Ben:

Please find enclosed two copies of Avra Oil Company application for injection. We propose to covert this well to a San Andres injection well through the existing San Andres perforations to enhance the production of the offset San Andres wells.

Avra is in the process of buying the offset leases, and will own all the offset wells in sec. 21 and 28 producing from the Red Lake Ridge San Andres field. There is no other production in this field. Closing date on the sale will be May 1, 1995.

If you have any questions or if I can be of any assistance, please let me know. Thank you for your time and consideration.

Sincerely,

Michael L. Pierce
Peak Consulting Services

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: AVRA OIL COMPANY

Address: P.O. BOX 3193 Midland, Texas 79702

Contact party: M. L. Pierce Phone: 505-392-1915

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 [X] 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: Michael L. Pierce Title Agent

Signature: _____ Date: 4-22-95

* 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. _____

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;

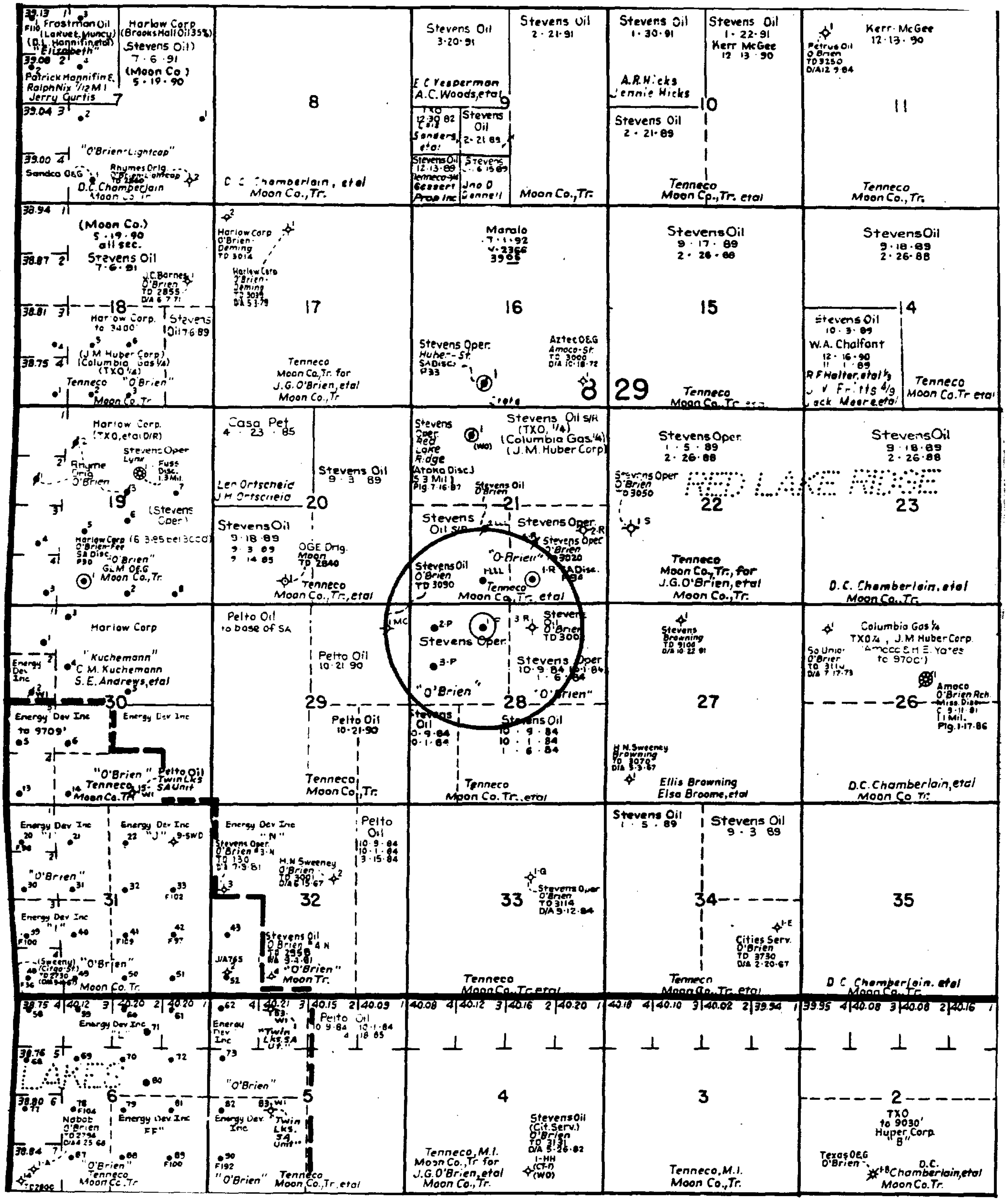
(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(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.



AVRA OIL COMPANY

O'Brien P No. 1

Section 28 - T8S - R29E

Chaves County, New Mexico

FORM C - 108 cont.

Part III. A

1.) O'Brien P No. 1
660' FNL and 1980' FWL
Sec. 28 - T8S - R29E
Unit C
Chaves County, New Mexico

2.) See attached wellbore schematic.

3.) Propose to run approximately 2800' of 2 7/8" plastic lined tubing.

4.) Propose to use a tension Packer as a seal, and set at approximately 100' above the top perforation. The casing annulus will be loaded with packer fluid.

Part III. B

1.) The injection interval will be in the P 1 zone, of the San Andres formation in the Red Lake Ridge San Andres field.

2.) The injection interval is perforated at 2876' to 2909'.

3.) This well was originally drilled as an oil and gas well.

4.) There are no other perforated intervals.

5.) There is production from the P 1 zone of the San Andres in this area. There is no other production within one mile of this location

Part VII.

1.) Proposed average daily injection will be 500 bbls/ day. Maximum will be 1500 bbls./ day.

2.) The system will be closed.

3.) The average injection pressure will be 0(Vacuum). The maximum will not exceed the limits set forth by the OCD.

4.) The source of the water will be from San Andres wells operated by Avra Oil Company.

5.) The San Andres is productive within one mile of the O'Brien P No. 1 well.

Part VIII

The injection interval is the San Andres, and is composed of primarily dolomite with occasional anhydrite stringers, and is approximately 60' thick. The top of the San Andres is at approximately 2424'. This entire area is overlain by Quaternary Alluvium.

Part IX

The injection interval will be re-treated with an acid job.

Part X

The logs have been previously submitted by Stevens Operating Corporation.

Part XI

There are no fresh water wells within one mile of the O'Brien P No. 1 location.

Part XII

We have examined all available geologic and engineering data, and find no evidence of open faults or any other hydrologic connection between the disposal interval and any underground source of drinking water.

Part XIV

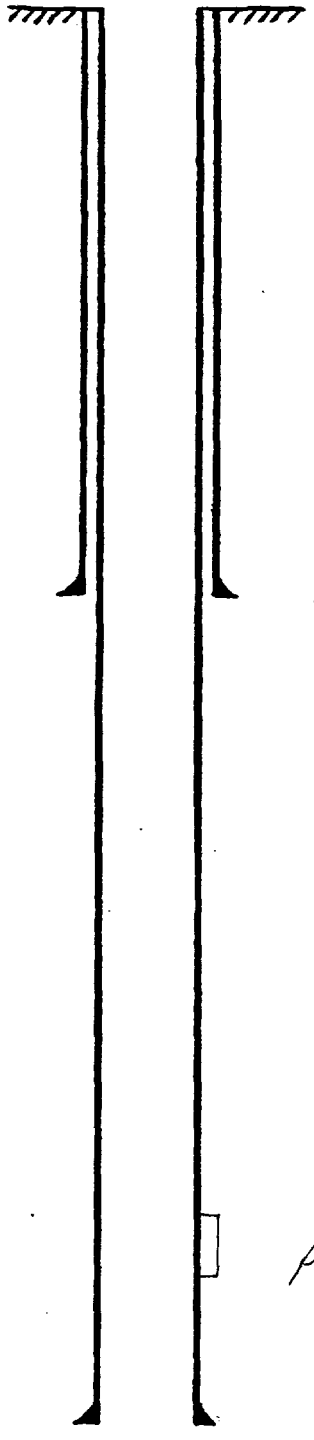
A copy of this application has been sent to:

Hanson Operating Company Inc.
P.O. Box 1515 Roswell, New Mexico 88201

The Moon Company Trust is the surface owner of unit C, Sec 28 - T8S - R29E, Chaves County, New Mexico.
A.L. Daugherty, Foreman HCR 31 Box 1343
Roswell, New Mexico 88201

OPERATOR			DATE
N. DALE NICHOLS			4-20-95
LEASE O'BRIEN A	WELL No. 1	LOCATION Sec 28 - T8S - R29E	

Unit C
660' FNL + 1980' FWL
Red Lake Ridge 5A
Current Wellbore Schematic



8 5/8 " casing set at 336 ' with 250 sx of _____ cement

Hole size 12 1/4 " Cement Circulates

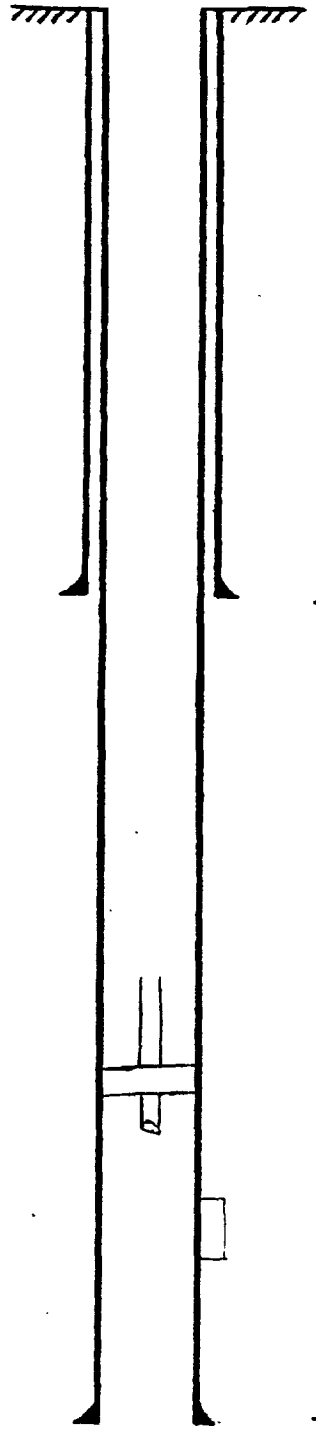
perforate 2876 – 2909 A/ w/ 7000 gal 28% HCL

4 1/2 " casing set at 3005 ' with 200 sx of _____ cement

Total Depth 3005 ' Hole size 7 7/8 " estimate TOC
using 50% efficiency @ 2469'

OPERATOR			DATE
AVRA Oil Company			
LEASE	WELL No.	LOCATION	
O'Brien P	1	Sec 28 - T8S - R29E	

Unit C
660' FNL & 1980' FWL
Red Lake Ridge SA
Proposed wellbore Schematic



8 5/8" casing set at 336' with 250 sx of _____ cemen
Hole size 12 1/4" cement Circulated.

2 3/8" - 2 7/8" platic coated tubing

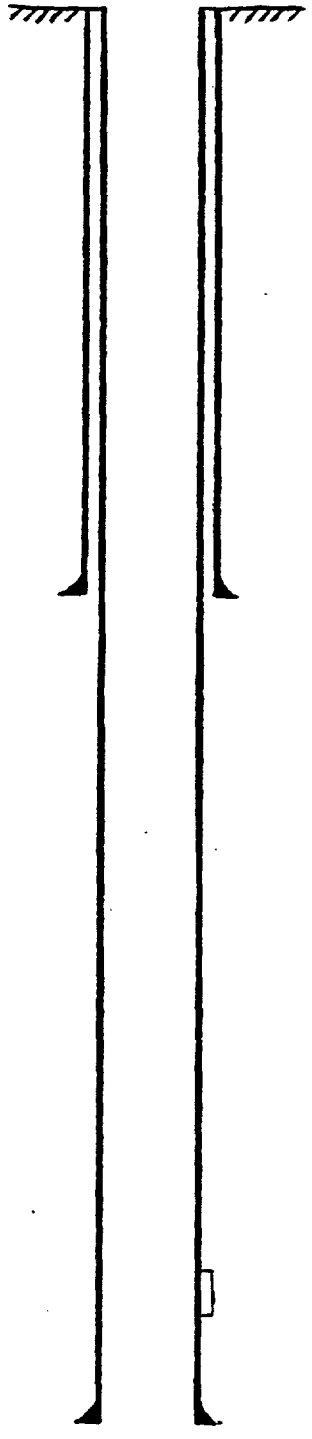
packer set @ ± 2775' - 2800'

Injection Interval 2876 - 2909

4 1/2" casing set at 3005' with 200 sx of _____ cemer
Total Depth 3005' Hole size 7 7/8" estimate TOC
using 50% efficiency @ 2469'

OPERATOR			DATE
N. DALE NICHOLS			4-20-95
LEASE	WELL No.	LOCATION	
O'BRIEN R	1	SEC 21 - T8S - R29E	

UNIT O
660'S & 1980'E
RED LAKE RIDGE SA



8 5/8 " casing set at 336 ' with 200 sx of _____ cemen
Hole size 12 1/4 " Cement circulated

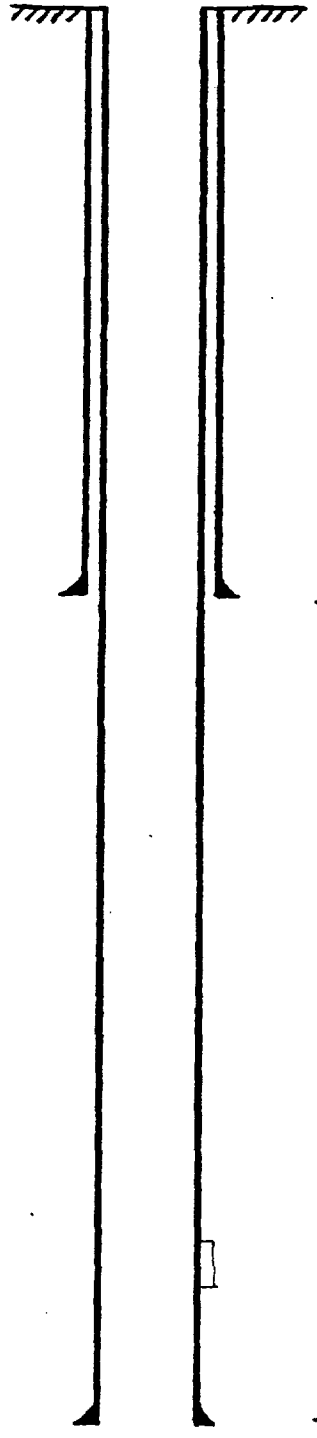
Hole in CASING @ 733' - 763' SQZ w/ 70 SXS
RETURN TO PRODUCTION.

perforate 2869' - 2904'
A/ 7000 gal 28% HCL

4 1/2 " casing set at 3100 ' with 200 sx of _____ cemen
Total Depth 3100 ' Hole size 7 7/8 " ESTIMATE TOC
USING 50% efficiency @ 2564

OPERATOR			DATE
N. DALE NICHOLS			4-20-95
LEASE	WELL No.	LOCATION	
O'BRIEN "LLL"	1	SOC 21-T8S-R29E	

Unit N
660' FSL + 1980' FWL
Red LAKE Ridge SA



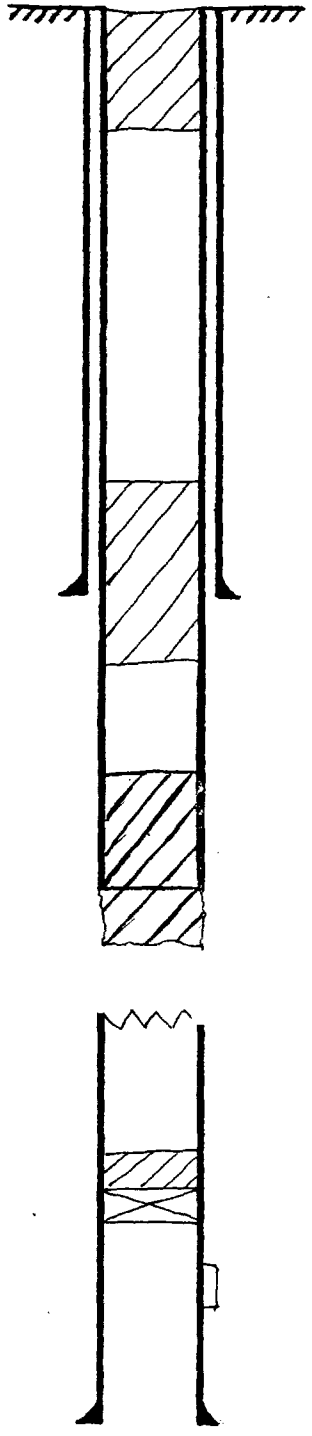
8 5/8 " casing set at 424 ' with 250 sx of _____ cement
Hole size 12 1/4 " cement circulates.

perforate 2852 - 2879

4 1/2 " casing set at 3005 ' with 200 sx of _____ cement
Total Depth 3005 ' Hole size 7 7/8 " estimate TOC
using 50% efficiency @ 2469'

OPERATOR			DATE
Stevens Operating Co			4-20-95
LEASE O'Brien R #4	WELL No. 4	LOCATION sec 21-T8S-R29E	

unit J
1680' FSL & 1980' FEL
P+A 7-27-87



set 30' surface plug.

set 25 sx plug @ 472'.

8 5/8 " casing set at 415 ' with 250 sx of _____ cement
Hole size 12 1/4 " cement circulated.

Cut & pull 4 1/2" csg. Pull 38 joints. csg shoe stuck @ 1504'. Set cmt plug @ 1473' TAG @ 1402'

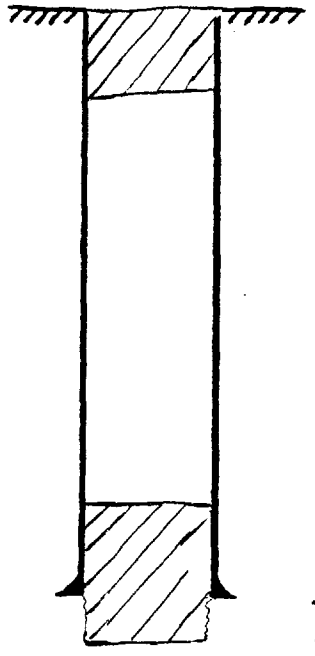
CIBP @ 2800' + 5 sx cement

perforate 2858-2888 A/ 7000 gal 28% HCL

4 1/2 " casing set at 2984 ' with 200 sx of _____ cemen
Total Depth 2984 ' Hole size 7 7/8 " estimate TOC using 50% efficiency @ 2448'

OPERATOR			DATE
Stevens Operating Corp			4-20-95
LEASE	WELL No.	LOCATION	
O'Brien "LLL"	2	Sec 21-T8S-R29E	

Unit K
1980' FSL + 1980' FWL
P+A 8-11-97

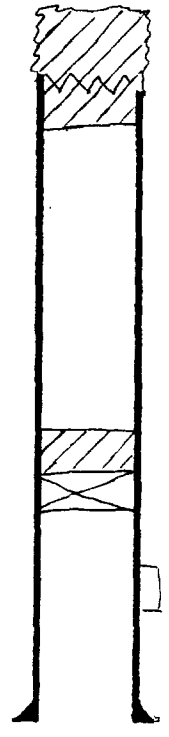


Set 20' surface plug

Set 25 sx plug @ 464'

8 5/8 " casing set at 392 ' with 225 sx of _____ ceme

Hole size 12 1/4 " Cement Circulated



Set 25 sx plug @ 5 1/2" stub Tag @ 1803'

SHOT + pulled 5 1/2" csg @ 1863'

CIBP @ 2900' + 5 sx cement

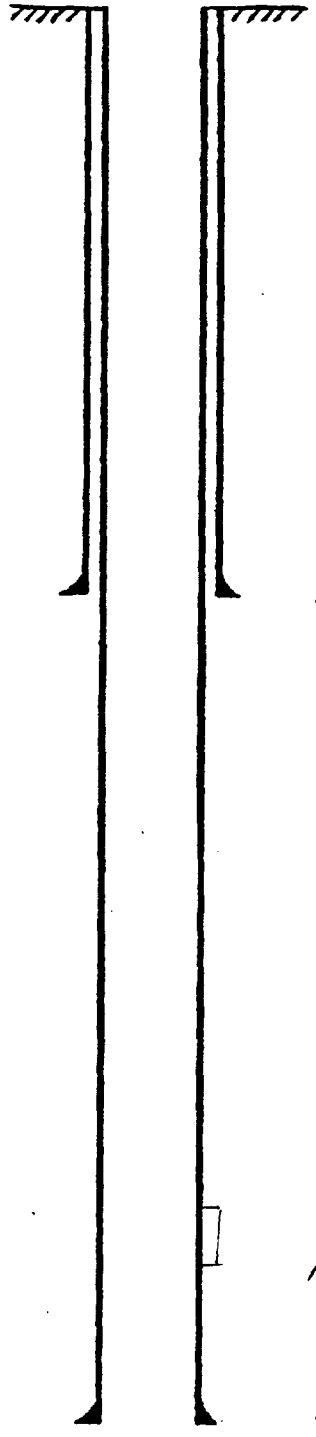
perforate 2844-2883 A/ 7000 gal 28% HCL

5 1/2 " casing set at 2924 ' with 150 sx of _____ ceme

Total Depth 2924 ' Hole size 7 7/8 " estimate TOC
using 50% efficiency @ 2396'

OPERATOR			DATE
N DALE NICHOLS			4-20-95
LEASE	WELL No.	LOCATION	
O'Brien P	2	Sec 28-T8S-R29E	

unit D
660' FNL & 660' FWL
Red Lake Ridge SA



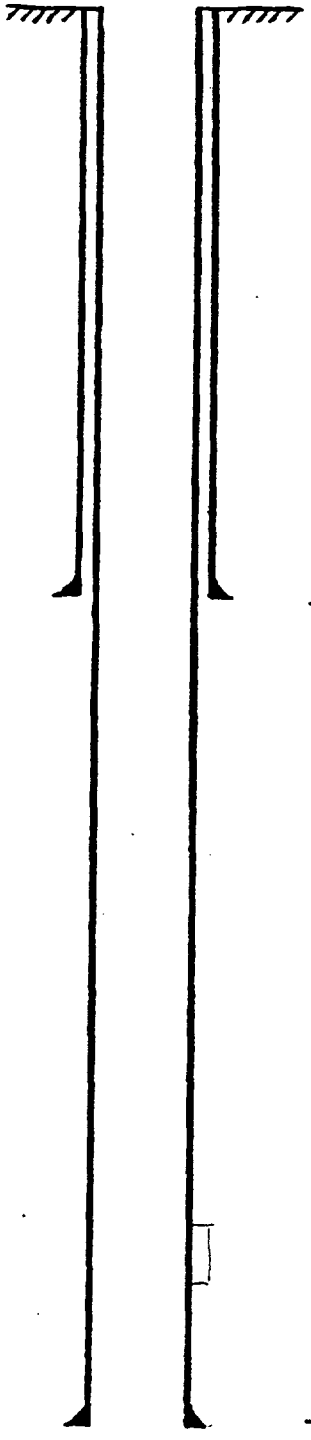
8 5/8 " casing set at 424 ' with 225 sx of _____ cemen
Hole size 12 1/4 " Cement Circulated

perforate 2858 - 2866' A/ 5000 gal 2% HCL

5 1/2 " casing set at 2925 ' with 175 sx of _____ cemer
Total Depth 2925 ' Hole size 7 7/8 " estimate TOC
using 50% efficiency @ 2309'

OPERATOR			DATE
N Dale Nichols			4-20-95
LEASE	WELL No.	LOCATION	
O'Brien P	3	Sec 28- T8S- R29 E	

unit E
1650' FNL & 660' FWL
Red Lake Ridge SA



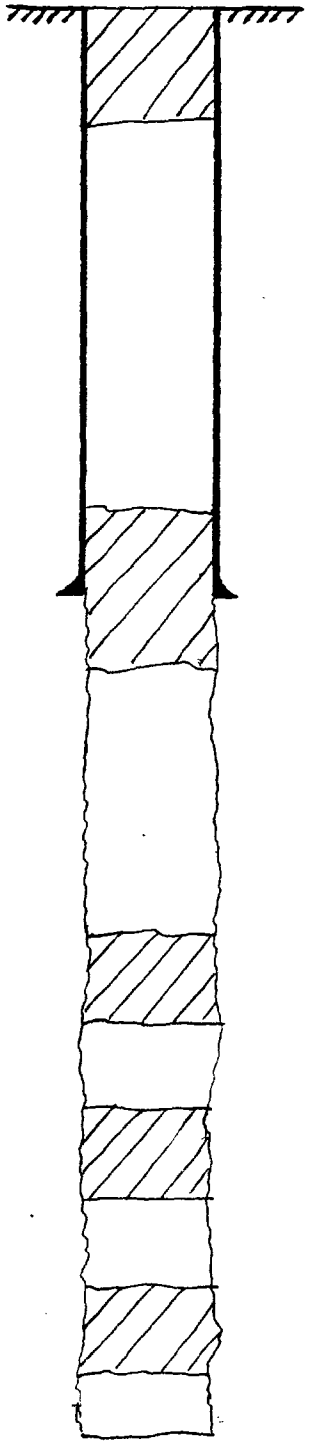
8 5/8 " casing set at 410 ' with 250 sx of _____ cemen
Hole size 12 1/4 " Cement Circulated.

perforate 2834- 2864 A/ 8000 gal 28% HCL

5 1/2 " casing set at 2920 ' with 175 sx of _____ ceme
Total Depth 2920 ' Hole size 7 7/8 " estimate TOC
using 50% efficiency @ 2304

OPERATOR			DATE
Stevens Operating Corporation			4-20-95
LEASE	WELL No.	LOCATION	
O'BRIEN R	3	Sec 28-T8-S R29E	

unit B
660' FNL + 1980' FEL
P+A 1-31-85



60' surface plug

100' plug 441 – 341 (90 sx)

8 5/8 " casing set at 380 ' with 225 sx of _____ cemen

Hole size 12 1/4 " Cement Circulated

100' plug @ 1253 – 1153 (40 sx)

100' plug @ 1786 – 1686 (40 sx)

100' plug @ 2280 – 2180 (40 sx)

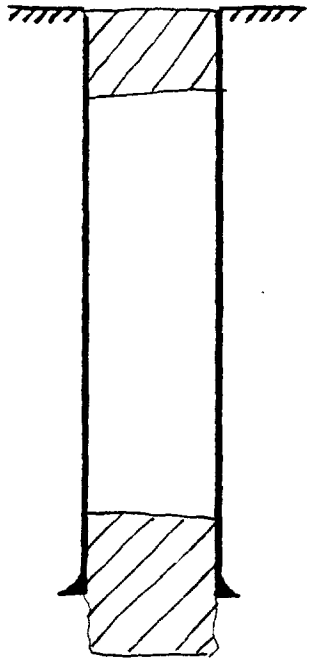
100' plug @ 2918 – 2818 (40 sx)

_____ " casing set at _____ ' with _____ sx of _____ cemen

Total Depth 3002 ' Hole size 7 7/8 "

OPERATOR			DATE
Stevens Operating Corporation			4-20-95
LEASE	WELL No.	LOCATION	
O'Brien MC	1	Sec 29-T8S-R29E	

Unit A
660' FNL + 660' FEL
P+A 8-11-87

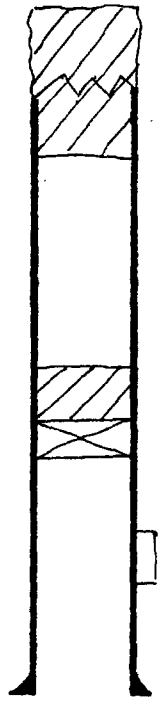


10' surface plug

25 sx plug @ 464 Tag @ 355'

8 5/8" casing set at 410' with 225 sx of _____ cemen

Hole size 12 1/4" Cement Circulated.



set 25 sx plug @ 1515-1646 TOC @ 1528'

Cut + pull csg @ 1593

CIBP @ 2800 + 5 sx cmt @ 2770'

perforate 2841-2867 A/ 5000 gal 28% HCL
FRAC w/ 40000 gal + 28500 # Sd

5 1/2" casing set at 3090' with 175 sx of _____ cemen

Total Depth 3090' Hole size 7 7/8" estimate TOC
Using 50% efficiency @ 2474'

Z 004 857 269

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

Sent to A.L. Daugherty	
Street and No. HCR 31 Box 1343	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	$ 10
Certified Fee	110
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	$ 2 11
Postmark or Date APR 24 1995	

PS Form 3800, March 1993

Z 004 857 268

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

Sent to Hanson Operating Co	
Street and No. PO Box 1515	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	$ 10
Certified Fee	110
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	$ 2 11
Postmark or Date APR 24 1995	

PS Form 3800, March 1993

OIL CONSERVATION DIVISION
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'95 MAY 8 AM 8 52

P.O. BOX 636
HOBBS, NEW MEXICO 88240
OFFICE (505) 392-1915

PEAK
CONSULTING SERVICES
ENVIRONMENTAL,
GEOLOGICAL & REGULATORY
SPECIALISTS

PCS

May 4, 1995

Mr. Ben Stone
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Proof of Publication
Avra Oil Company
O'Brien P No. 1
Injection Application
Sec. 28 - T8S - R29E
Chaves County, New Mexico

Dear Ben:

Please find enclosed two copies of Avra Oil Company Proof Publication for the above captioned injection well.

I have received no protests to this application as of this date. If I can be of further assistance please let me know. Thank you for your time and consideration.

Sincerely,

Michael L. Pierce
Peak Consulting Services

AFFIDAVIT OF PUBLICATION

County of Chaves
State of New Mexico

I, Jean M. Pettit,
Bus. 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: one time weeks

.....
beginning with issue dated
April 26th , 1995
.....
and ending with the issue dated
April 26th , 1995

.....
Jean M. Pettit
.....
Manager

Sworn and subscribed to before me

this 26th day of
.....
April ,1995
.....
Marylon S. Skipper
.....
Notary Public

My Commission expires

July 25 ,1998
(SEAL)

Publish April 26, 1995

ADVERTISEMENT

AVRA OIL COMPANY, whose address is P.O. Box 3193 MIDLAND, TEXAS 79702, proposes to convert the following well to injection for the purpose of enhanced recovery.

The well is the O'BRIEN P No. 1 located at 660' FNL and 1980' FWL of Sec. 28 - T8S - R29E, unit C, Chaves County, New Mexico. The injection interval is the San Andres at a depth of approximately 2876' - 2909'. The maximum injection rate will be 1500 bbls/day, with 0 pressure.

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

Inquires regarding this application should be directed to Peak Consulting Services Attn. M. L. Pierce, P.O. Box 636, Hobbs, New Mexico 88240, (505) 392-1915.