

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL  
BRUCE D. BLACK  
MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
J. SCOTT HALL  
PETER N. IVES  
JOHN H. BEMIS  
MARTE D. LIGHTSTONE

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

April 22, 1987

RECEIVED

APR 22 1987

OIL CONSERVATION DIVISION

HAND DELIVERED

William J. LeMay, Director  
Oil Conservation Division  
State Land Office Building  
Santa Fe, New Mexico 87503

Re: Application of EP Operating Company for  
Water Disposal, Chaves County, New Mexico.

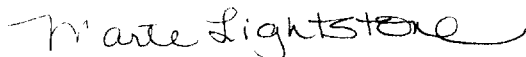
Dear Mr. LeMay:

Enclosed is the application of EP Operating Company in the above-referenced matter. EP Operating Company respectfully requests that this matter be placed before the Division for administrative approval.

Also enclosed are copies of notice letters, sent by certified mail, an Affidavit of Publication showing copy of published legal advertisement, and a letter of no objection to the application from the Commissioner of Public Lands.

If further information is needed for the consideration of this application, please let us know.

Very truly yours,



MARTE LIGHTSTONE  
ATTORNEY FOR EP OPERATING COMPANY

ML/ab  
Enclosures

cc w/enclosures: Artesia Oil Conservation Division Field Office  
Attention: Les Clements

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: EP Operating Company

Address: 6 Desta Dr., Suite 5250, Midland, Texas 79705

Contact party: Mr. Phillip Grice Phone: (915) 682-9756

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.

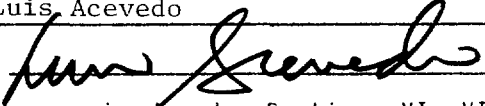
XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

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: Luis Acevedo

Title District Petroleum Engineer

Signature: 

Date: 4/2/87

\* 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.**

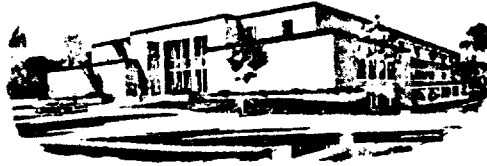
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**NOTICE:** Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

# State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER



## Commissioner of Public Lands

April 14, 1987

RECEIVED

APR 15 1987

CAMPBELL & BLACK

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

Campbell & Black  
Attorneys At Law  
P. O. Box 2208  
Santa Fe, New Mexico 87504-2208

Re: J. G. O'brien Well No. 3 located 1980 feet from  
the North line, 1830 feet from the West line,  
Section 7, T-7S, R-29E, Chaves County, New Mexico.

Attn: Marte Lightstone

Gentlemen:

Inasmuch as the above well is located on non-state owned  
lands, we have no objections as to it's conversion at this  
time.

If we may be of further assistance, please do not hesi-  
tate to call on us.

Very truly yours,

W. R. Humphries  
Commissioner of Public Lands

By: Floyd O. Prando, Director  
Oil and Gas Division  
A/C 505-827-5744

WRH:FOP:cw

CAMPBELL & BLACK, P.A.

LAWYERS

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

April 8, 1987

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Frates Seeligson  
1604 National Bank of Commerce Building  
San Antonio, Texas 78205

Re: Application of E P Operating Company  
for Water Disposal,  
Chaves County, New Mexico.

Dear Sir:

This letter is to advise you that E P Operating Company will file an application with the New Mexico Oil Conservation Division seeking administrative approval of water disposal into the J. G. O'Brien Well No. 3 located 1980 feet from the North line, 1830 feet from the West line, Section 7 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. A copy of the application is enclosed for your information.

This application is for administrative approval. Any objections or requests for hearing must be filed with the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87504, within fifteen (15) days from the date this application was mailed.

Very truly yours,

*Marte Lightstone*

MARTE LIGHTSTONE

ATTORNEY FOR E P OPERATING COMPANY

ML/ab  
Enclosures

P 331 613 212

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED —  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO	
Frates Seeligson	
STREET AND NO.	
1604 Nat. Bk of Com.	
P.O., STATE AND ZIP CODE	
San Antonio, Tx. 78205	
POSTAGE	\$ 1.24
CERTIFIED FEE	.75 <sup>c</sup>
SPECIAL DELIVERY	<sup>c</sup>
RESTRICTED DELIVERY	<sup>c</sup>
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	.70 <sup>c</sup>
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	<sup>c</sup>
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	<sup>c</sup>
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	<sup>c</sup>
TOTAL POSTAGE AND FEES	\$ 2.69
POSTMARK OR DATE	
4/08/87	

961 Apr 80 Form 388 S-1

6811, Feb. 1986

DOMESTIC RETURN RECEIPT

3. Article Addressed to:		Frates Seeligson 1604 National Bank of Commerce Building San Antonio, Texas 78205	
4. Article Number		P 331 613 212	
5. Signature — Addressee		X	
6. Signature — Agent		X	
Date of Delivery		APR 10 1987	
1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address.		2. <input type="checkbox"/> Restricted Delivery.	
Type of Service:		<input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD	
8. Addressee's Address (ONLY if requested and fee paid)		Always obtain signature of addressee or agent and DATE DELIVERED.	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

CAMPBELL & BLACK, P.A.

LAWYERS

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POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 988-4421  
TELECOPIER: (505) 983-6043

April 8, 1987

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Sun Exploration and Production Company  
Post Office Box 2880  
Campbell Centre  
Dallas, Texas 75221

Attention: Joint Operations

Re: Application of E P Operating Company  
for Water Disposal,  
Chaves County, New Mexico.

Gentlemen:

This letter is to advise you that E P Operating Company will file an application with the New Mexico Oil Conservation Division seeking administrative approval of water disposal into the J. G. O'Brien Well No. 3 located 1980 feet from the North line, 1830 feet from the West line, Section 7 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. A copy of the application is enclosed for your information.

This application is for administrative approval. Any objections or requests for hearing must be filed with the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87504, within fifteen (15) days from the date this application was mailed.

Very truly yours,

*Marte Lightstone*

MARTE LIGHTSTONE

ATTORNEY FOR E P OPERATING COMPANY

ML/ab  
Enclosures

# **P 331 613 211** **RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO		Sun Exploration & Prod
STREET AND NO.		P. O. Box 2880
P.O., STATE AND ZIP CODE		Dallas, Tx. 75221
POSTAGE		\$ 1.24
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75
	SPECIAL DELIVERY	
	RESTRICTED DELIVERY	
	OPTIONAL SERVICES	
	RETURN RECEIPT SERVICE	.70
	SHOW TO WHOM AND DATE DELIVERED	
TOTAL POSTAGE AND FEES		\$ 2.69
POSTMARK OR DATE		4/08/87

PS Form 3800, Apr. 1976

<p><b>SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.</b>                  Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.</p>	
1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address.	2. <input type="checkbox"/> Restricted Delivery.
3. Article Addressed to:	
Sun Exploration and Prod. Post Office Box 2880 Campbell Centre Dallas, Tex. 75221 Attn: Joint Operations	
4. Article Number	
P 331 613 211	
Type of Service:	
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	
Always obtain signature of addressee or agent and <b>POSTAL DELIVERED.</b>	
5. Signature — Addressee	
X 6. Signature — Agent X 7. Date of Delivery	
8. Addressee's Address (ONLY if requested and fee paid)	

DOMESTIC RETURN RECEIPT

PS Form 3811, Feb. 1986



CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL  
BRUCE D. BLACK  
MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
J. SCOTT HALL  
PETER N. IVES  
JOHN H. BEMIS

GUADALUPE PLACE  
SUITE 1 - 110 NORTH GUADALUPE  
POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 986-4421  
TELECOPIER: (505) 983-6043

April 8, 1987

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Stevens Oil Co.  
400 North Penn  
Roswell, New Mexico 88201

Re: Application of E P Operating Company  
for Water Disposal,  
Chaves County, New Mexico.

Gentlemen:

This letter is to advise you that E P Operating Company will file an application with the New Mexico Oil Conservation Division seeking administrative approval of water disposal into the J. G. O'Brien Well No. 3 located 1980 feet from the North line, 1830 feet from the West line, Section 7 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. A copy of the application is enclosed for your information.

This application is for administrative approval. Any objections or requests for hearing must be filed with the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87504, within fifteen (15) days from the date this application was mailed.

Very truly yours,

*Marte Lightstone*

MARTE LIGHTSTONE

ATTORNEY FOR E P OPERATING COMPANY

ML/ab  
Enclosures

# P 331 613 210 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO	
Stevens Oil Co.	
STREET AND NO.	
400 North Penn	
P.O., STATE AND ZIP CODE	
Roswell, N.M. 88201	
POSTAGE	\$ 1.24
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE
	SPECIAL DELIVERY
	RESTRICTED DELIVERY
	OPTIONAL SERVICES
	RETURN RECEIPT SERVICE
	SHOW TO WHOM AND DATE DELIVERED
	.70 <sup>c</sup>
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY
TOTAL POSTAGE AND FEES	\$ 2.69
POSTMARK OR DATE	
4/08/87	

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

☐ Show to whom delivered, date, and addressee's address.    ☐ Restricted Delivery.

Article Addressed to:

Stevens Oil Co.  
400 North Penn  
Roswell, NM 88201

4. Article Number  
P 331 613 210

Type of Service:  
☐ Registered  
☒ Certified  
☐ Express Mail  
☐ Insured  
☐ COD

Always obtain signature of addressee or agent and DATE DELIVERED.

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

Signature — Addressee  
*Robert M. [Signature]*

Signature — Agent  
*[Signature]*

If Delivery  
 4-10-87

1986 Feb. 11

DOMESTIC RETURN RECEIPT

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL  
BRUCE D. BLACK  
MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. SERGE  
J. SCOTT HALL  
PETER N. IVES  
JOHN H. BEMIS

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POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 988-4421  
TELECOPIER: (505) 983-6043

April 8, 1987

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Moon Company Trustee  
Post Office Box 9598  
Amarillo, Texas 79105

Re: Application of E P Operating Company  
for Water Disposal,  
Chaves County, New Mexico.

Gentlemen:

This letter is to advise you that E P Operating Company will file an application with the New Mexico Oil Conservation Division seeking administrative approval of water disposal into the J. G. O'Brien Well No. 3 located 1980 feet from the North line, 1830 feet from the West line, Section 7 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. A copy of the application is enclosed for your information.

This application is for administrative approval. Any objections or requests for hearing must be filed with the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87504, within fifteen (15) days from the date this application was mailed.

Very truly yours,

*Marte Lightstone*

MARTE LIGHTSTONE

ATTORNEY FOR E P OPERATING COMPANY

ML/ab  
Enclosures

# P 331 613 209 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO		Moon Company Trustee	
STREET AND NO.		P. O. Box 9598	
P.O., STATE AND ZIP CODE		Amarillo, Tex. 79105	
POSTAGE		\$ 1.24	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75 <sup>c</sup>	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE		
	SHOW TO WHOM AND DATE DELIVERED	.70 <sup>c</sup>	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c	
TOTAL POSTAGE AND FEES		\$ 2.69	
POSTMARK OR DATE		4/08/87	

PS Form 3800, Apr. 1976

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

<p>1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address.</p> <p>2. <input type="checkbox"/> Restricted Delivery.</p>		<p>3. Article Addressed to:</p> <p>Moon Company Trustee P. O. Box 9598 Amarillo, Texas 79105</p>	
<p>4. Article Number</p> <p>P 331 613 209</p>		<p>Type of Service:</p> <p><input checked="" type="checkbox"/> Registered <input type="checkbox"/> Certified <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Insured <input type="checkbox"/> COD</p>	
<p>5. Signature — Addressee</p> <p>X</p>		<p>6. Signature — Agent</p> <p>X <i>John H. Hutter</i></p>	
<p>7. Date of Delivery</p> <p>4-13-87</p>		<p>8. Addressee's Address (ONLY if requested and fee paid)</p>	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

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WILLIAM F. CARR  
BRADFORD C. BERGE  
J. SCOTT HALL  
PETER N. IVES  
JOHN H. BEMIS

GUADALUPE PLACE  
SUITE 1 - 110 NORTH GUADALUPE  
POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 968-4421  
TELECOPIER: (505) 983-6043

April 8, 1987

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Commissioner of Public Lands  
Post Office Box 1148  
Santa Fe, New Mexico 87504-1148

Re: Application of E P Operating Company  
for Water Disposal,  
Chaves County, New Mexico.

Dear Sir:

This letter is to advise you that E P Operating Company will file an application with the New Mexico Oil Conservation Division seeking administrative approval of water disposal into the J. G. O'Brien Well No. 3 located 1980 feet from the North line, 1830 feet from the West line, Section 7 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. A copy of the application is enclosed for your information.

This application is for administrative approval. Any objections or requests for hearing must be filed with the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87504, within fifteen (15) days from the date this application was mailed.

Very truly yours,

*Marte Lightstone*

MARTE LIGHTSTONE

ATTORNEY FOR E P OPERATING COMPANY

ML/ab  
Enclosures

# P 331 613 208 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

SENT TO		Com.of Public Lands
STREET AND NO.		P.O. Box 1148
P.O., STATE AND ZIP CODE		Santa Fe, N.M. 87504
POSTAGE		\$ 1.24
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75 c
	SPECIAL DELIVERY	c
	RESTRICTED DELIVERY	c
	OPTIONAL SERVICES	
	RETURN RECEIPT SERVICE	.70 c
	SHOW TO WHOM AND DATE DELIVERED	
TOTAL POSTAGE AND FEES		\$ 2.69
POSTMARK OR DATE		4/08/87

PS Form 3800, Apr. 1976

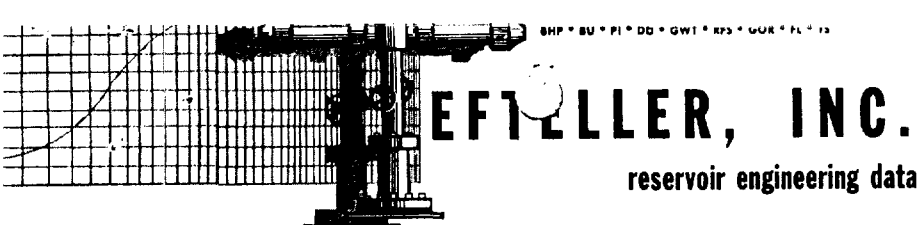
**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address.	2. <input type="checkbox"/> Restricted Delivery.
3. Article Addressed to: Commissioner of Public Lands Post Office Box 1148 Santa Fe, New Mexico 87504	
4. Article Number P 331 613 208	Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD
Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .	
5. Signature — Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
7. Date of Delivery	

Stamp: SANTA FE NM APR 8 1987

Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT



MIDLAND, TEXAS / FARMINGTON, NEW MEXICO  
GRAND JUNCTION, COLORADO

P. O. Box 5247  
Midland, Texas 79704  
(915) 682-5574

**RECEIVED**

SEP 06 1985

September 5, 1985

**Midland Production**

E. P. Operating  
P. O. Box 4815  
Midland, Texas 79704

Attention: Leonard Kersh

Subject: Bottomhole Pressure Measurement  
J. G. O'Brien No. 3  
South Elkins Field  
Chaves County, New Mexico  
Our File No. 3-17322-BU

Gentlemen:

Attached hereto are the results of a bottomhole pressure measurement which was conducted on the above captioned well September 3, 1985

The data presented are in tabular and graphical form.

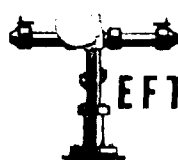
It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

D. A. Warren, Jr.  
Operations Manager

DAWjr/lw



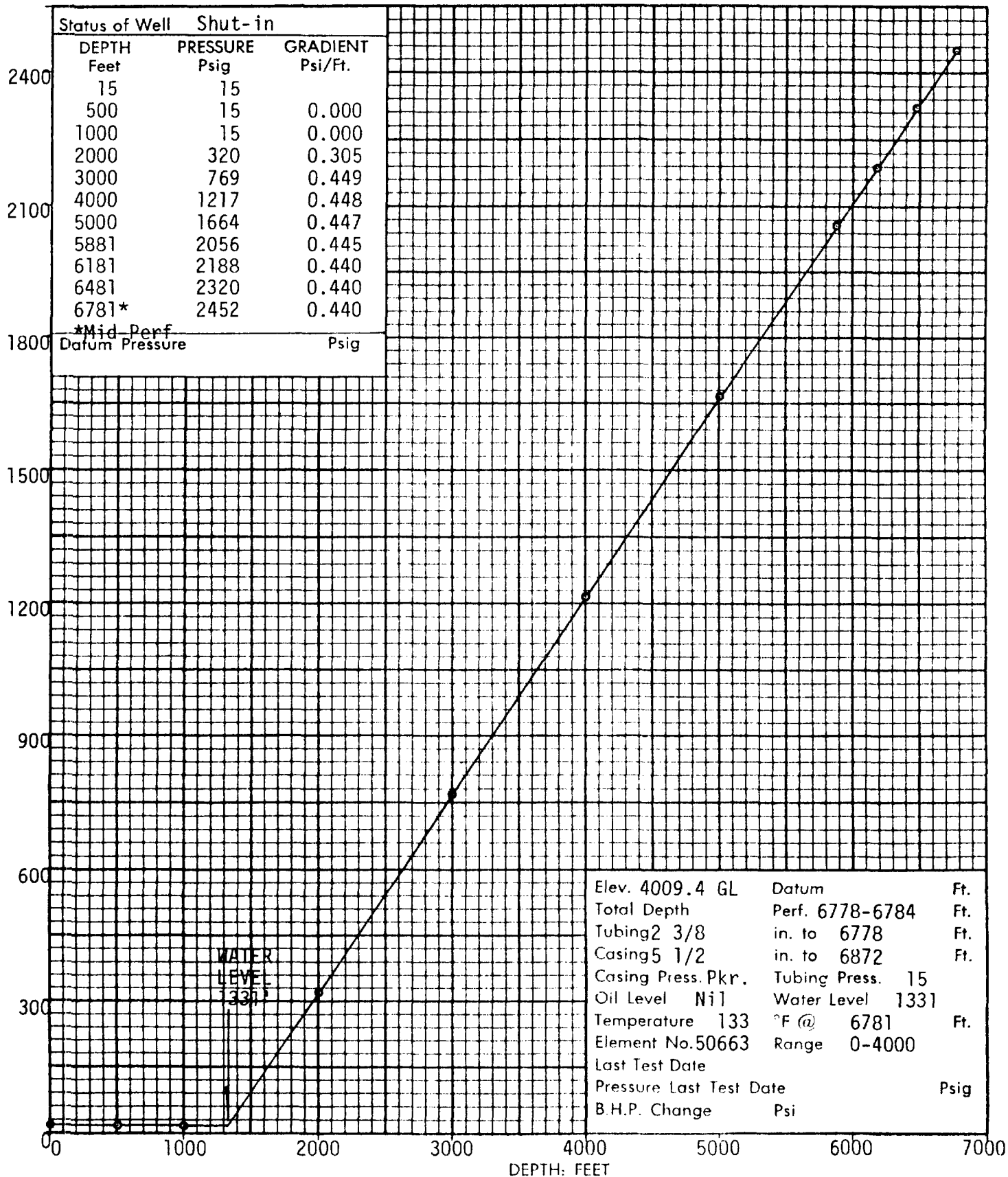
EFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS

Page 1 of 1  
File 3-17322-P

Company E. P. OPERATING COMPANY Lease J. G. O'BRIEN Well No. 3  
Field SOUTH ELKINS County CHAVES State NEW MEXICO  
Formation FUSSELMAN Test Date SEPTEMBER 3, 1985





ENSERCH EXPLORATION, INC.  
J.G. O'BRIEN No. 3

Schlumberger  
COMPENSATED NEUTRON-  
FORMATION DENSITY LOG

(Run 2)  
6-2-81

6700

Top of  
Fusselman

6800

Caliper

GR

F.R. (GR)

F.R. (CALIPER)

F.R. (CNL)

F.R. (FDC)

FILE

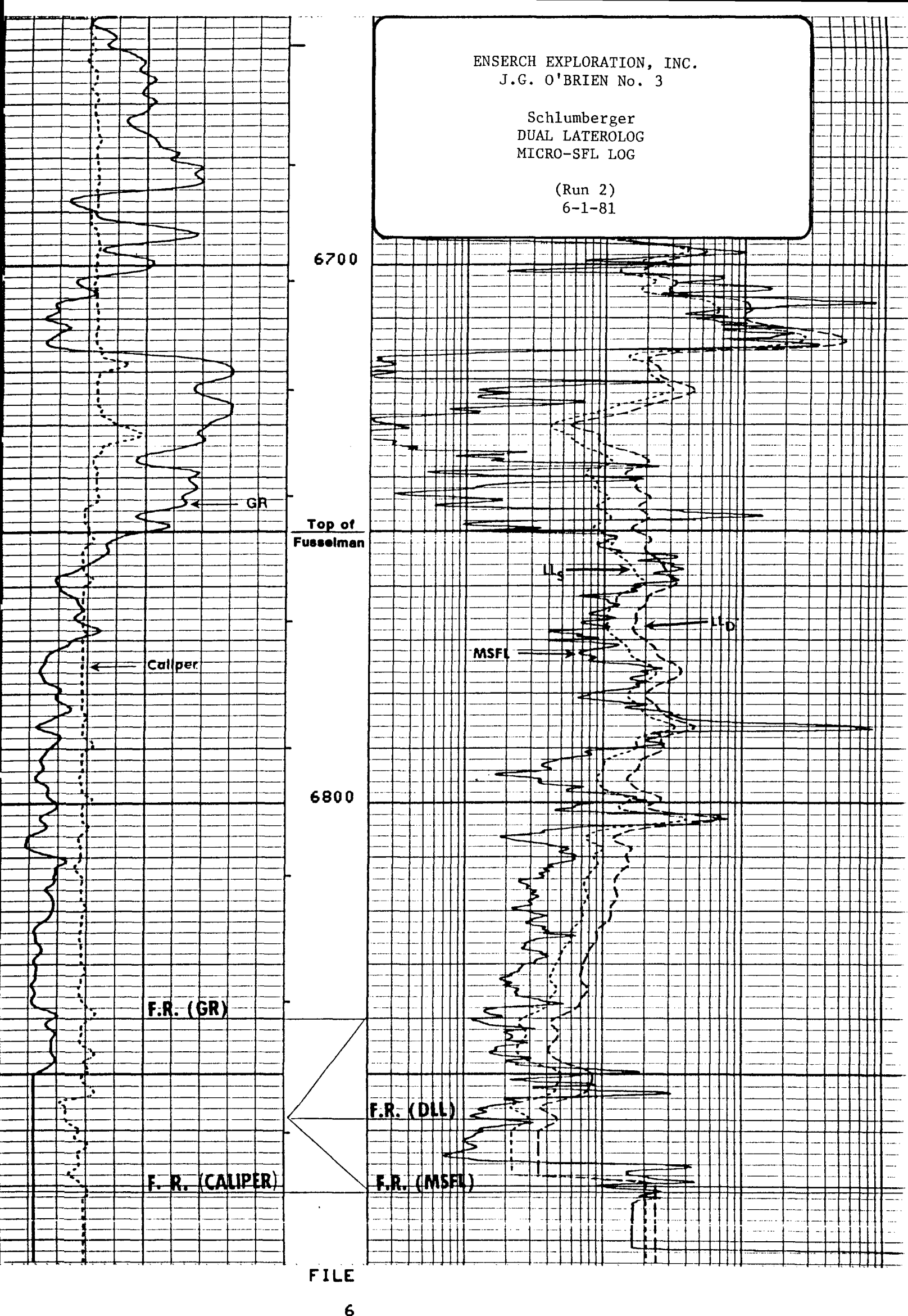
4

GR (GAPI)		DRHO (G/C3)			
150.0	300.0	-0.050	0.4500		
CALI (IN )				NPHI ( )	
6.000	16.00	0.3000		-0.100	
GR (GAPI)				DPHI ( )	
0.0	150.0	0.3000		-0.100	

ENSERCH EXPLORATION, INC.  
J.G. O'BRIEN No. 3

Schlumberger  
DUAL LATEROLOG  
MICRO-SFL LOG

(Run 2)  
6-1-81

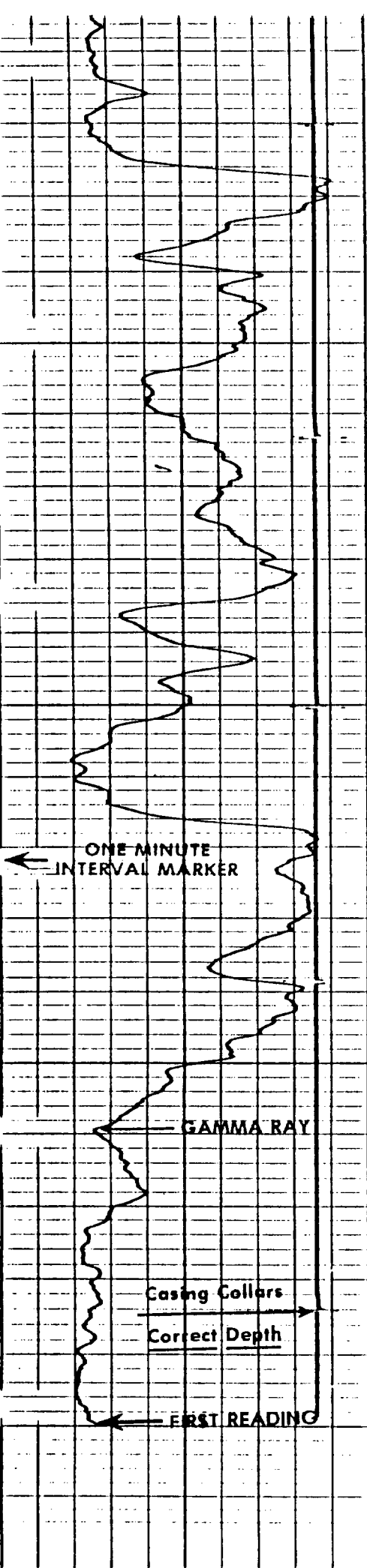


GR (GAPI)		LLD (OHMM)	
150.0	300.0	2000.	200000
CALI (IN )		MSFL (OHMM)	
6.000	16.00	0.2000	2000
GR (GAPI)		LLS (OHMM)	
0.0	150.0	0.2000	2000
		LLD (OHMM)	
		0.2000	2000

ENSERCH EXPLORATION, INC.  
J.G. O'BRIEN No. 3

Welex  
MICRO-SEISMOGRAM  
LOG-CASED HOLE

6-22-81

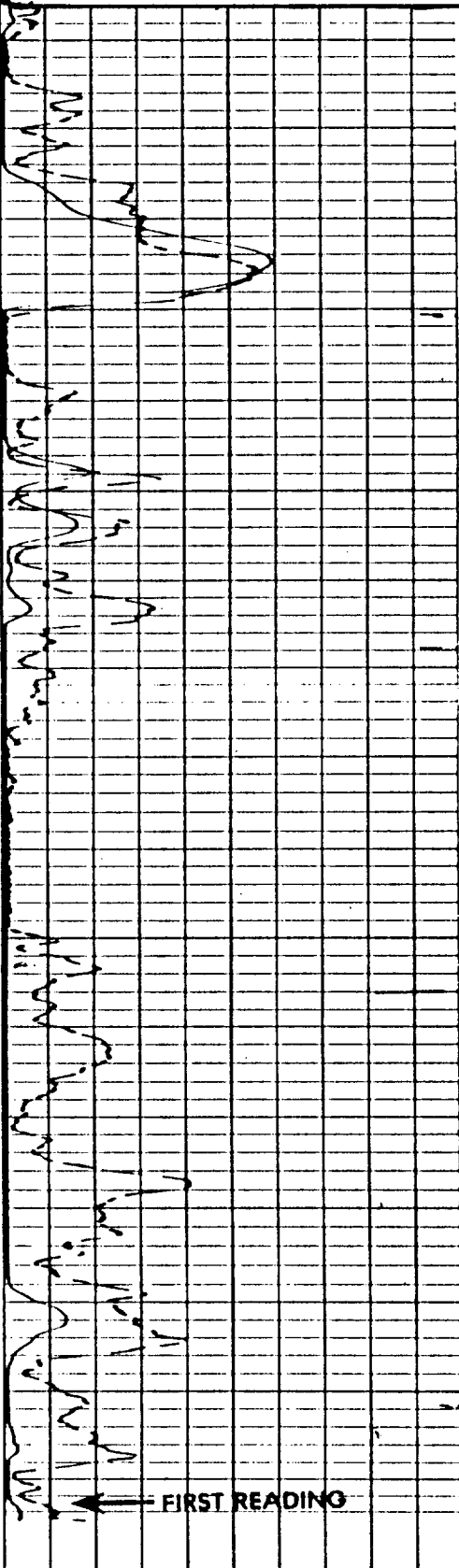


Top of  
Fusselman

6650

6700

6800



Formation Gate

Pipe Gate

AMPLITUDE

MICRO-SEISMOGRAM® LOG

100 Micro-Seconds 1100

GAMMA

API Gamma Ray Units

Enserch Exploration, Inc.  
J. G. O'Brien # 3  
South Elkins Field  
Chaves County, New Mexico

T.D. LOGGED 6816'  
T.D. DRILLER 6825'  
T.D. WELEX 6824'

ENSERCH EXPLORATION, INC.

NO. 3 J.G. O'BRIEN

S. ELKINS FUSSELMAN FIELD

CHAVES COUNTY, NEW MEXICO

CORE LABORATORIES, INC.



June 29, 1981

ENSERCH EXPLORATION, INC.  
P.O. Box 4815  
Midland, Texas 79704

File : 3202-12369  
Subject: Core Analysis  
No. 3 J.G. O'Brien  
S. Elkins Fusselman Field  
Chaves County, New Mexico

Gentlemen:

The subject well was cored using diamond coring equipment and salt base mud to obtain 4 $\frac{1}{4}$  inch diameter cores from 6765 to 6777 feet from the Fusselman/Montoya formation.

Core analysis data is presented in tabular and graphical form for your convenience. A porosity vs. permeability plot and porosity and permeability histograms were prepared for statistical evaluation.

We trust these data will be useful in the evaluation of your property and thank you for the opportunity of serving you.

Very truly yours,

CORE LABORATORIES, INC.

A handwritten signature in black ink, reading "Jack H. Neff", with a stylized flourish at the end.

Jack H. Neff  
Laboratory Manager

JHN/DO/yn

ENSERCH EXPLORATION, INC.  
No. 3 J.G. O'Brien  
File No. 3202-12359  
Procedural Page

The cores were preserved at the wellsite in a CO<sub>2</sub> atmosphere and transported to Midland by Core Laboratories, Inc. personnel.

A Core Gamma Log was recorded for downhole E-log correlation.

One set of core chips was taken.

One preserved fresh core sample was taken.

Core analysis was made from intervals requested on full diameter samples.

Fluid removal and fluid saturations were determined using controlled temperature vacuum retort techniques.

Gas expansion porosity and grain density were determined using Boyle's Law.

Air permeability was measured in two horizontal directions and vertically while the core was held in a Hassler rubber sleeve.

The core was slabbed and boxed after the analysis and remains at our Midland Lab as we await further disposition instructions.

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

ENSERCH EXPLORATION, INC.

NO. 3 J. G. O'BRIEN  
S. ELKINS FUSSELMAN FIELD  
CHAVES COUNTY, NEW MEXICO

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*

DALLAS, TEXAS

ENSERCH EXPLORATION, INC.  
 NO. 3 J. G. O'BRIEN  
 S. ELKINS FUSSELLMAN FIELD  
 CHAVES COUNTY, NEW MEXICO

DATE : 5-31-81  
 FORMATION : FUSSELLMAN/MONTOYA  
 DRIG. FLUID: SALT BASE MUD  
 LOCATION : 1980' FNL & 1830' FNL, SEC. 30, T-7-S, R-29-E

FILE NO : 3202-12359  
 ANALYSTS : REINHHEIMER  
 LABORATORY: MIDLAND TEXAS

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MAXIMUM	PERM 90 DEG	PERM VERTICAL	HE FOR	OIL% PORE	WTR% PORE	GRAIN DEN	DESCRIPTION
CORE NO. 1 6765.0-6795.0 CUT 30' REC 12'									
1	6765.0-66.0	0.15		<0.01	5.2	0.0	69.7	2.80	DOL CHTY VF BREC
2	6766.0-67.0	0.76	0.51	1.5	11.4	14.5	47.4	2.81	DOL SL/CHTY VF BREC
3	6767.0-68.0	0.90	0.38	0.75	8.0	11.7	56.3	2.80	DOL SL/CHTY VF BREC
4	6768.0-69.0	0.95	0.87	0.04	9.5	4.0	26.0	2.78	DOL CHTY BREC
5	6769.0-70.0	0.23	0.07	0.05	7.7	8.7	37.5	2.81	DOL SL/F CHTY BREC
6	6770.0-71.0	0.18	0.04	0.22	6.9	16.4	44.8	2.82	DOL CHTY BREC
7	6771.0-72.0	0.03	<0.01	<0.01	1.0	9.5	75.7		DOL VF
8	6772.0-73.0	0.11	0.04	0.06	8.3	9.8	55.4	2.82	DOL STY
9	6773.0-74.0	0.15	0.08	0.13	8.5	9.1	57.1	2.81	DOL SL/CHTY BREC STY
* 10	6774.0-75.0	0.03		0.08	5.3	8.9	78.9	2.82	DOL SL/CHTY BREC
* 11	6775.0-76.0	0.08		0.04	11.0	28.9	68.4	2.84	DOL SL/CHTY BREC
12	6776.0-77.0	0.04	0.04	0.04	14.3	23.4	29.0	2.84	DOL

\* INDICATES PLUG PERMEABILITY



# LITHOLOGICAL ABBREVIATIONS

ANH(Y)	ANHYDRITE, ANHYDRITIC	LM(Y)	LIMESTONE, LIMY
ARK	ARKOSE, ARKOSIC	MG	MEDIUM GRAINED
BAN	BAND, BANDED	MTX	MATRIX
BREC	BRECCIA, BRECCIATED	NA	INTERVAL NOT ANALYZED (AT REQUEST OF CLIENT)
CALC	CALCITE, CALCAREOUS	NOD	NODULE, NODULAR
CARB	CARBONACEOUS	OOL	OOLITIC
CG	COARSE GRAINED	PISO	PISOLITIC
CHK(Y)	CHALK, CHALKY	PP	PINPOINT POROSITY
CHT(Y)	CHERT, CHERTY	PT	PARTING
CONGL	CONGLOMERATE, CONGLOMERITIC	PYR	PYRITE, PYRITIC
CXLN	COARSELY CRYSTALLINE	SD(Y)	SANDSTONE, SANDY
DNS	DENSE	SH(Y)	SHALE, SHALY
DOL(C)	DOLOMITE, DOLOMITIC	SHR	SOLID HYDROCARBON RESIDUE
F	RANDOMLY ORIENTED FRACTURES	SL/	SLIGHTLY
FG	FINE GRAINED	SLT(Y)	SILT, SILTY
FOSS	FOSSILIFEROUS	STY	STYLOLITE, STYLOLITIC
FR	FRIABLE	SUC	SUCROSCIC
FXLN	FINELY CRYSTALLINE	SUL	SULPHUR
GAL	GALENA	TBFA	TOO BROKEN FOR ANALYSIS
GLAUC	GLAUCONITE, GLAUCONITIC	TRIP	TRIPOLITE
GRAN	GRANITE	V/	VERY
GUP	GYPSEUM, GYPSIFEROUS	VF	PREDOMINANTLY VERTICALLY FRACTURED
HF	PREDOMINANTLY HORIZONTALLY FRACTURED	V	VEGULAR
INC	INCLUSION	XBD	CROSSEDED
INTD	INTERBEDDED	XLN	MEDIUM CRYSTALLINE
LAM	LAMINATED	XIL	CRYSTAL

THE FIRST WORD IN THE DESCRIPTION COLUMN OF THE CORE ANALYSIS REPORT DESCRIBES THE ROCK TYPE. FOLLOWING ARE ROCK MODIFIERS IN DECREASING ABUNDANCE AND MISCELLANEOUS DESCRIPTIVE TERMS.

LAB

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY ENSENCH EXPLORATION, INC. FILE NO. 3202-12359  
WELL NO. 3 J. G. O'BRIEN DATE 5-31-81  
FIELD ELKINS FUSSELMAN FIELD FORMATION FUSSELMAN/MONTOYA ELEV. 4009' GL  
COUNTY BLAVES COUNTY STATE NEW MEXICO DRILG. FLD. SALT BASE MUD CORES ACC  
LOCATION 1980' FNL & 1830' FNL, SEC. 31, T-7-S, R-29-E

CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom and for whose exclusive and confidential use this report is made. The client is responsible for the accuracy of the data furnished. Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any well, gas or other mineral well or land in connection with which such report is used or relied upon.

VERTICAL SCALE: 5" = 100'

Gamma Ray

Permeability

Porosity

Oil Saturation

RADIATION INCREASE

MILLIDARCIES

PERCENT

PERCENT PORE SPACE

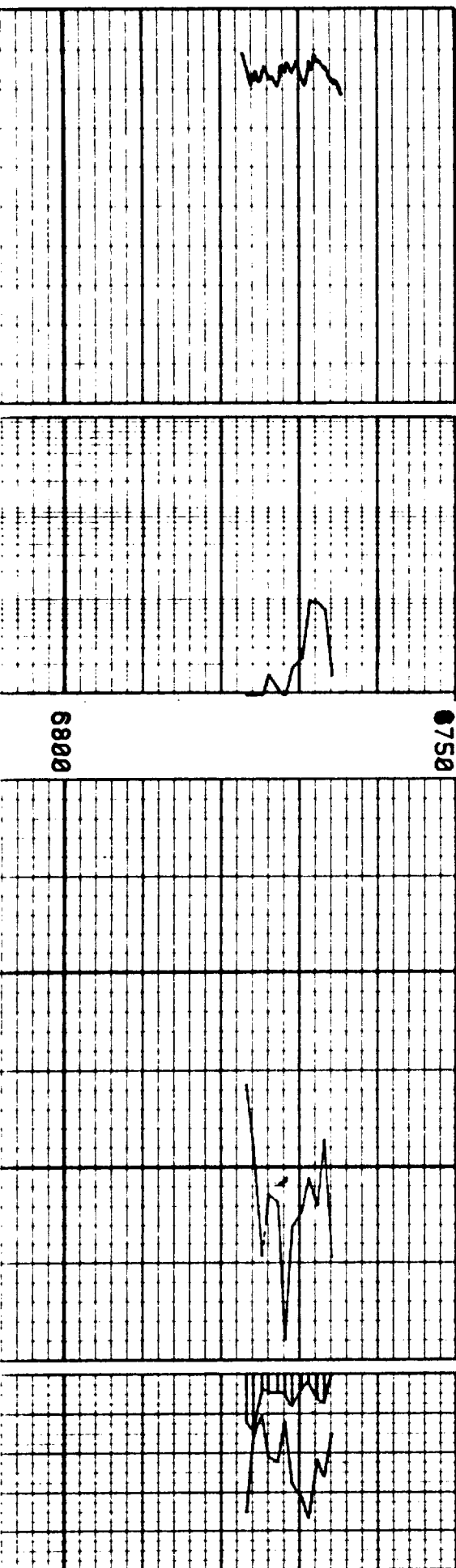
API UNITS

Depth  
Feet

0 0 20 40 60 80 10

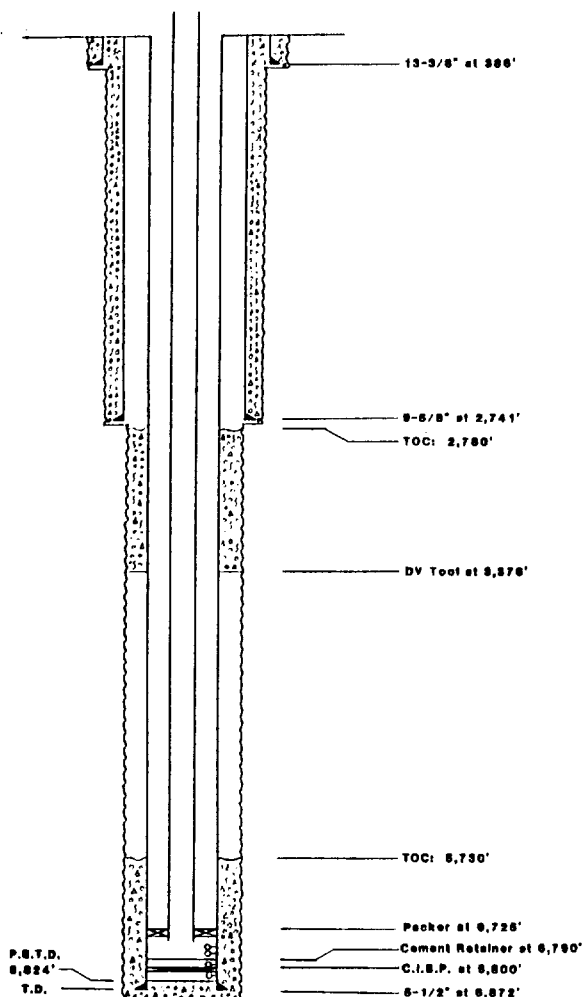
6750

6800



## INJECTION WELL DATA SHEET

EP Operating Company		J. G. O'Brien			
OPERATOR		LEASE			
3	1980' FNL & 1830' FWL	F	31	7-S	29-E
WELL NO.	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

SchematicTubular Data

Surface Casing 386 feet  
Size 13-3/8 " Cemented with 520 sx.  
TOC surface feet determined by circulated 125 sx.  
Hole size 17-1/2"

Intermediate Casing 2,741 feet  
Size 9-5/8 " Cemented with 1750 sx.  
TOC surface feet determined by circ. 668 sx.  
Hole size 12-1/4"

Long String 6,872 feet  
Size 5-1/2 " Cemented with 1st stage: 315  
2nd stage: 5730 sx.  
TOC 2nd stage: 2780 feet determined by cement bond log  
Hole size 8-3/4"

Total Depth 6,872'

Injection interval  
6,762 feet to 6,784 feet  
(perforated ~~or open hole~~, indicate which)

Tubing size 2-3/8" lined with plastic set in a  
(material)  
Baker Model R 5-1/2" packer at 6,725 feet  
(brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Fusselman
- Name of Field or Pool (if applicable) South Elkins Fusselman (oil) pool
- Is this a new well drilled for injection? ☐ Yes ☒ No  
If no, for what purpose was the well originally drilled? Development:  
producing oilwell.
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)  
6804 to 6810 feet; 6820 feet. CIBP at 6800 feet.  
6794 to 6797 feet - cement retainer at 6790 and squeezed w/43 sx.
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Chaves Undes. Pennsylvanian (Gas) pool. Uphole 30 feet  
Bull's Eye San Andres. Uphole 3650 feet

Well Location: Unit Letter E  
Footage Location 1980' FNL & 660' FWL  
Section 31, Township 7-S, Range 29-E

Well Name: J.G. O'Brien No. 1

Operator Name: EP Operating Company  
(Formerly Enserch Exploration, Inc.)

Spud Date: 4-28-80 Date TD Reached: 5-23-80

Completion Date: 6-11-80

Total Depth: 6,791 feet

Well Type: Oil

Completion Formation: Fusselman

Field Name: South Elkins Fusselman (Oil) pool

Current Status: Producing from perforations at  
6,708 to 6,716 feet (16 holes)

# WELL DATA SHEET

EP Operating Company	J.G. O'Brien	1
OPERATOR	LEASE	WELL NO.
E	1980' FNL & 660' FWL	31 7-S 29-E
UNIT LETTER	FOOTAGE LOCATION	SECTION TOWNSHIP RANGE

## Schematic

## Tubular Data

### Surface Casing

Size 13-3/8 " Cemented with 450 sx.  
 TOC Surface feet determined by circulated  
110 sx.  
 Hole size 17-1/2"

### Intermediate Casing

Size 9-5/8 " Cemented with 1300 sx.  
 TOC Surface feet determined by circulated  
160 sx.  
 Hole size 12-1/4"

### Long String

Size 5-1/2 " Cemented with 500 sx.  
 TOC 5,840 feet determined by Cement Bond Log  
 Hole size 8-3/4"  
 Total Depth 6,791'

Fusselman Perforations:  
 6,708' - 6,716' (34 holes)

6,741' - 6,745' (5 holes)

Acidized: 100 gals. 7 1/2% MCA

Plugged back w/CIBP at 6,735'

TOC: 5,840'

P.B.T.D.  
 6,779'

T.D.

Packer at 6,661'

2-3/8" Tubing w/Gun Assembly to 6,716'

P.B.T.D. (TOC) at 6,723'

C.I.B.P. at 6,735'

5-1/2" at 6,791'

Well Location: Unit Letter H  
Footage Location 660' FEL & 2206' FNL  
Section 36, Township 7-S, Range 28-E

Well Name: State 1-36 No. 1  
(Formerly G.A.O. State No. 1)

Operator Name: Phillips Petroleum Company  
(Formerly General American Oil Company  
of Texas)

Spud Date: 8-22-80 Date TD Reached: 9-25-80

Completion Date: 9-29-80

Total Depth: 7,060 feet

Well Type: Gas

Completion Formation: Pennsylvanian

Field Name: Chaves Undes Pennsylvanian (Gas) pool

Current Status: Plugged and Abandoned 11-9-85

# WELL DATA SHEET

Phillips Petroleum Company

State 1-36 (Formerly G.A.O. State)

1

OPERATOR

LEASE

WELL NO.

H

660' FEL & 2206' FNL

36

7-S

28-E

UNIT LETTER

FOOTAGE LOCATION

SECTION

TOWNSHIP

RANGE

## Schematic

## Tubular Data

### Surface Casing

Size 13 3/8 " Cemented with 435 sx.

TOC Surface feet determined by circulated

Hole size 17-1/2"

### Cement Plugs:

A 4,500'-4,400': 25 sx Class H cement plug  
 B 3,575'-3,418': 50 sx Class H cement plug  
 C 2,850'-2,729': 50 sx Class H cement plug  
 D 475'- 375': 50 sx Class H cement plug  
 E 50'-Surface: 20 sx Class H cement plug

### Intermediate Casing

Size 9-5/8 " Cemented with 900 sx.

TOC Surface feet determined by circulated

Hole size 12-1/4"

### Pennsylvanian Perforations:

6,704'-6,718' (28 holes)

Acidized w/150 gals. 15% MCA

Potentialled: 10-29-80

Flowing: 410 MCF Gas Per Day

50# Flowing Tubing Pressure

Cumulative Production: 29,237 MCF

### Long String

Size 5-1/2 " Cemented with 400 sx.  
 volume

TOC 5,400 feet determined by calculation

Hole size 8-3/4"

Total Depth 7,060'

Estimated TOC: 5,400'

TOC: 6,651'

C.I.B.P. at 6,685'

C.I.B.P. at 6,740'

C.I.B.P. at 6,910'

5-1/2" at 7,052'

### Fusselman Perforations:

6,782'-6,800' and 6,812'-6,820' (2 JSPF)

Swabbed w/no show

Acidized w/1,000 gals.

Swabbed w/no show

Abandoned w/C.I.B.P. at 6,740'

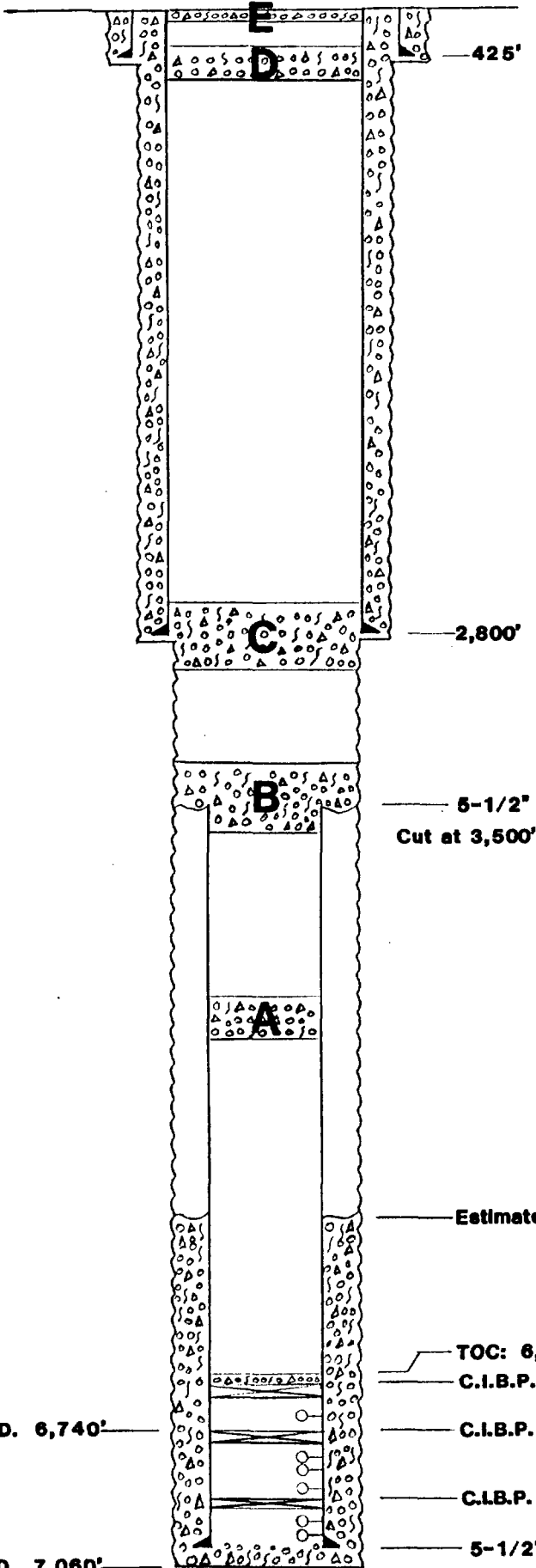
6,866'-6,879' (2 JSPF)

Swabbed w/no show

6,952'-6,958' and 6,989'-6,996' (2 JSPF)

Swabbed w/no show

Abandoned w/C.I.B.P. at 6,910'



T.D. 7,060'

Well Location: Unit Letter L  
Footage Location 2130' FSL & 660' FWL  
Section 31, Township 7-S, Range 29-E

Well Name: J. G. O'Brien No. 4

Operator Name: EP Operating Company  
(Formerly Enserch Exploration, Inc.)

Spud Date: 1-27-82 Date TD Reached: 3-13-82

Completion Date: 5-4-82

Total Depth: 6,950 feet

Well Type: Gas

Completion Formation: Pennsylvanian

Field Name: Chaves Undes Pennsylvanian (Gas) pool

Current Status: Producing from perforations at  
6,761 to 6,768 feet (16 holes)

*There is an  
erosional cap of  
hard limestone, no  
permeability. between  
Perm and Fossilman  
No communication should  
take place.  
Contacted Mr. Gacci  
6854 - Top of Fossilman*



WELL DATA SHEET

EP Operating Company		J.G. O'Brien		4
OPERATOR		LEASE		WELL NO.
L	2130' FSL & 660' FWL	31	7-S	29-E
UNIT LETTER	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

Tubular Data

Surface Casing

Size 13-3/8 " Cemented with 240 sx.  
 TOC surface feet determined by circulated  
 Hole size 17-1/2"

Intermediate Casing

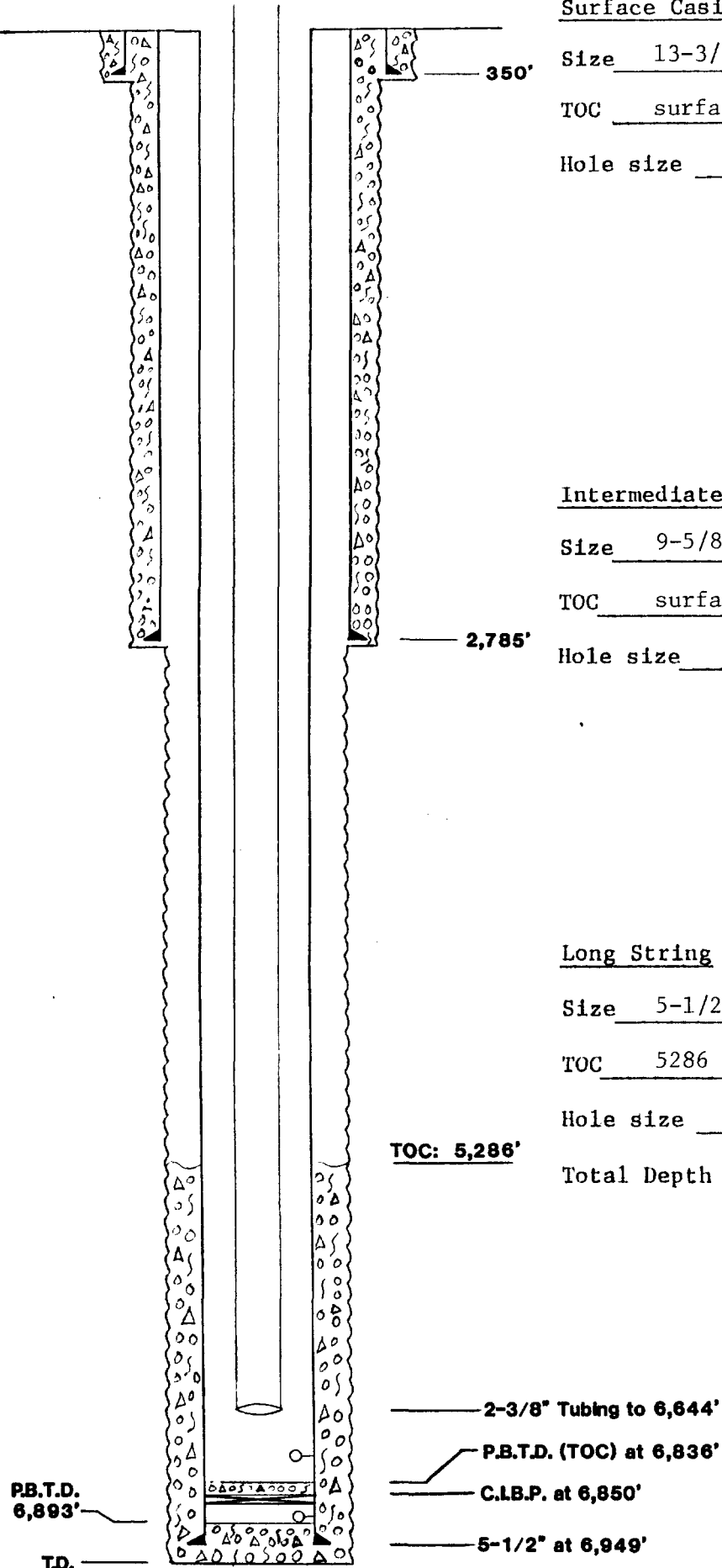
Size 9-5/8 " Cemented with 1170 sx.  
 TOC surface feet determined by circulated  
 Hole size 12-1/4"

Long String

Size 5-1/2 " Cemented with 675 sx.  
 TOC 5286 feet determined by Cement Bond Log  
 Hole size 8-3/4"  
**TOC: 5,286'**  
 Total Depth 6,950'

Pennsylvanian Perforations:  
 6,761' - 6,768' (16 holes)  
 Acidized: 2000 gals 15% NeFe  
 Re-acidized: 8000 gals 15% HCl  
 Frac: 40,000 gals acid gel w/  
 36,000# 20-40 sand & 25% CO<sub>2</sub>

Fusselman Perforations:  
 6878' - 6884' (14 holes)  
 Swabbed water  
 Abandoned w/C.I.B.P. at 6,850'.



Proposed Operations

1. Fluid to be injected at:  
Average Daily Rate: 200 bbls./day  
Maximum Daily Rate: 350 bbls./day
2. The system is a closed system.
3. Injection Pressure:  
Average: 200 psig  
Maximum: 1300 psig
4. The fluid is produced Fusselman water from the EP  
and 5. Operating Company - J.G. O'Brien No. 1 well. The  
produced water will be reinjected into the Fusselman  
down-dip in the EP Operating Company - J.G. O'Brien  
No. 3 well. Fusselman water analysis indicates  
total dissolved solids of 66,881 mg. per liter.

**709 W. INDIANA  
MIDLAND, TEXAS 79701  
PHONE 682-4521**

## RESULT OF WATER ANALYSES

LABORATORY NO. 781155 RECEIVED  
TO: Mr. Horace Burnett SAMPLE RECEIVED 7-15-81  
P.O. Box 4815, Midland, Texas RESULTS REPORTED 7-20-81

JUL 21 1981

COMPANY Enserch Exploration, Inc. LEASE J. G. O'Brien  
FIELD OR POOL Wildcat MIDLAND PRODUCTION  
SECTION      BLOCK      SURVEY      COUNTY Chaves STATE New Mexico  
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Recovered water - taken from J. G. O'Brien #3. 7-11-81

NO. 2

NO. 3

NO. 4

REMARKS: Fusselman

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0505			
pH When Sampled				
pH When Received	6.8			
Bicarbonate as HCO <sub>3</sub>	647			
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	10,800			
Calcium as Ca	3,000			
Magnesium as Mg	802			
Sodium and/or Potassium	21,504			
Sulfate as SO <sub>4</sub>	1,868			
Chloride as Cl	39,060			
Iron as Fe	10.5			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	66,881			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.124			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results show no significant change in the water from this well since the sample taken 6-27-81 and reported on analysis #681331.

Geologic Name: Fusselman

Thickness of Fusselman: Est. 300'

Thickness of injection zone: 24'

Depth of injection zone: 6,762' to 6,784'

Lithologic detail: A light grey, fractured, sucrosic  
dolomite with intercrystalline  
porosity.

Overlying zones with sources of drinking water:

Alluvium formation (Quaternary Period) down to 140'.  
Chinle formation (Upper Triassic Period) 140' to less  
than 180'.

Proposed Stimulation

If the perforations fail to take the injected water within the limits of the planned operations, perforations will be acidized with 1500 gallons of 15% HCl NEFE at a rate of 2 - 3 BPM, with surface treating pressures not to exceed 1200 psig.

The following are included as part of Attachment X:

Open Hole Logs:

Schlumberger - Compensated Neutron - Formation Density  
Run 2  
6-2-81  
TD - 6,648'

- Dual Laterlog Micro-SFL  
Run 2  
6-1-81  
TD - 6,654'

Cased Hole Logs:

Welex - Micro-Seismogram Log  
Run 1  
6-22-81  
PBTD - 6,606'

Core Analysis:

Core Laboratories, Inc. - 6,765' to 6,777'

Bottomhole Pressure Measurement:

Tefteller, Inc. - 9-5-85

No freshwater wells are known to exist within a one mile radius of the proposed injection well. Surface owner currently trucks in freshwater for this property, when needed.

A review of all current and available geologic and engineering data indicates that there is no evidence of any open faults or any connection between the disposal zone and any underground sources of drinking water. If there were any connections or open faults, hydrocarbons could not be entrapped in the South Elkins Fusselman Field at a depth of 6,700' to 6,800'. As far as the wellbore is concerned, all known sources of drinking water are sealed off with surface casing and cement circulated to surface in the EPOC No. 3 O'Brien well.



County of Chaves }  
State of New Mexico, }

I, Jean H. 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 .....13

.....April....., 1987

and ending with the issue dated 13

..... April ..... 19.....

✓ Per M. Pettit  
Manager

Sworn and subscribed to before me

this 13th day of \_\_\_\_\_

.....April 19 87

Maylor L Skiper  
Notary Public

My commission expires .....

(Seal) July 21, 1909

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