DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No. OIL OPERATORS NO. 1, Sec. 15, T. 4S, R. 13W, SB B. & M.

Signed: Henry E. Winter

Date: NOVEMBER 12, 1937
Title: DISTRICT ENGINEER
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of shots or number of feet of cement drilled out of casing, depth at which cement plug started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date

1937

CASHING RECORD AT START OF WORK.

NEW WELL

DEPTH EFF., DEPTH REMARKS

9-30 187

Spudded in and drilled with 17" rotary bit.

10-3 757

Drilled with 17" bits to 757'. Cemented new 13-3/8" 45-97#/ National seamless slipjoint casing at 757' with 350 sacks Velo cement. Cementing operation approved by Pierce of D.C.C.

10-4 617

Found top of cement at 737'. Cleaned out cement and plugs. Drilled ahead with 12-1/4" bit.

10-13 4110

Drilled and cored to 4043'. Ran Schlumberger survey. Cored ahead to 4110'.

11-14

Enlarged hole to 4100' with 12-1/4" reamer. Cemented 8-5/8" - 35#/ Grade "G" (610' of Grade D on bottom) 8 thread rounded seamless casing at 4100', with 400 sacks Victor Oil Well cement.

11-20

Found top of cement at 4081'. Cleaned out cement and plugs to 4110'. 750 test on 6-5/8" casing at 4105', witnessed and approved by Murray-Aaron of D.C.C. Directional survey of hole made by Alexander Anderson.

12-21 4155

Cored ahead to 4155' with 7-5/8 barrel.

10-22

Landed 68' of 6-5/8" 26#/ Grade "G" 10 thread casing at 4155' including 47' of 120 Mesh (16-2-6-) Kobe perforated on bottom.

10-23

Landed 3" upset tubing at 4077'. Installed Xmas tree. Swabbed fluid to 2000'. Well started. Flowing by heads. 1,3225'.
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No.: OIL OPERATORS NO. 1
Sec.: 18
T.: 4S
R.: 1SW
B. & M.: 5R

Signed: Henry Winter

Date: NOVEMBER 12, 1937

Title: DISTRICT ENGINEER
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

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**DIVISION OF OIL AND GAS**

**LOG OF OIL OR GAS WELL**

Operator: UNION OIL COMPANY OF CALIFORNIA  
Field: LONG BEACH

Well No.: OIL OPERATORS #1  
Sec. 14, T.13S, R. 15W  
Elevation: 56.84

Completed drilling: October 25, 1937

Drilling tools: Rotary

**GEOLOGICAL MARKERS**

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<th>Top of wilbur shale</th>
<th>Top Alaminos shale</th>
<th>Top brown sand</th>
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**Initial production**

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<th>Clean Oil bbl. per day</th>
<th>Gravity Clean Oil</th>
<th>Per Cent Water including emulsion</th>
<th>Gas Mcf. per day</th>
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**Perforations**

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<th>Size of Casing (A. P. L.)</th>
<th>Depth of Shoe</th>
<th>Top of Casing</th>
<th>Weight of Casing</th>
<th>New or Second Hand</th>
<th>Seamless or Lapweld</th>
<th>Grade of Casing</th>
<th>Size of Hole Casing landed in</th>
<th>Number of Sacks of Cement</th>
<th>Depth of Cementing if through perforations</th>
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<td>6-5/8</td>
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**Perforations (Present Hole)**

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<th>Size of Casing</th>
<th>From</th>
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<th>Number of Rows</th>
<th>Distance Between Centers</th>
<th>Method of Perforations</th>
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<td>6-5/8</td>
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<td>4155</td>
<td>120 Mesh</td>
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<td>Kobe</td>
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**Electrical Log Depths**

Schlumberger from 757 - 4043.

(Attach Copy of Log)
### FORMATIONS PENETRATED BY WELL

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<th>Depth to (Top of Formation)</th>
<th>Thickness</th>
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<tr>
<td>0-21</td>
<td>7</td>
<td><strong>Soft, loose, fine dark brown oil sand.</strong> Good odor and dark amber cut. Core has strong flash test. Hard, grayish brown slightly calcareous bentonitic shale. This shale differs from the others and may be a marker.</td>
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<td>0-21</td>
<td>8</td>
<td>Soft, loose, fine dark brown oil sand. Hard, brownish black shale. Firm, soft, fine to medium dark brown oil sand. Strong odor with strong flash. Streak of shale 0.4 from bottom.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Shale**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3</td>
<td>Firm, soft, fine to medium dark brown oil sand. Hard, slightly calcareous shale shell. Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Hard, slightly calcareous shale shell. Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Sand looks good. 0.1 of brown shale 0.3 from bottom.</td>
</tr>
</tbody>
</table>

**Operators**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.84</td>
<td>Henry E. Winters</td>
</tr>
</tbody>
</table>
629 South Hill Street  
Los Angeles, California  
November 11, 1937.

Union Oil Company of California,  
Union Oil Building,  
Los Angeles, Calif.

Gentlemen:  
Attention Mr. W. S. Eggleston

In accordance with recent conversation between your office and Engineering Crown of this office, we are correcting your notice of intention to drill, dated August 9, 1937, and the following reports issued by this office, to show the correct designation of the well as "Oil Operators" 1 (instead of "Oil Operators, Inc." 1), Sec. 13, T. 4 S., R. 13 W., S. B. E. & W., Long Beach field:

Nos. P L-31200; T L-33187; T 1-33264, and T 1-33300.

Please correct your copies accordingly.

Yours truly,

Deputy Supervisor.

[Handwritten note: Topo 53 Ref. 838  11/12/37]
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33300

Los Angeles, Calif. November 5, 1937

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS, INC." 1, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on October 20, 1937, Mr. E. R. Murray-Aaron, designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present J. R. Kewish, Drilling Foreman, and S. Hagenstad and R. Hampton, Engineers.

Location of water tested above 4105' and normal fluid level not reported

Depth and manner of water shut-off: 4105 ft. of 8-5/8 in. casing cemented in shale formation at 4105 ft. with 400 sacks Victor cement by casing method.

Water string was landed in 124" rotary hole.

Casing record of well 13-3/8 cem. 757' 8-5/8" as above.

Reported total depth of hole 4110 ft. Hole bridged from xx ft. to xx ft. Hole cleaned out to 4110 ft. for this test.

At time of test depth of hole measured xx ft. and bailer brought up sample of xxxx

At oil bailed to xx ft., drilling fluid swabbed to xx ft.

At top of oil found at xxx ft., top of fluid found at xxx ft.

MR. HAGENSTAD REPORTED THE FOLLOWING:

1. No casing test was made.
2. 21' of set cement was drilled out of the 8-5/8" casing (equivalent to 6 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4061'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The tester valve was opened at 10:48 a.m. and remained open for 30 minutes. During this interval there was a strong, steady blow for the entire test period; gas reached the surface in 3 minutes.
2. The fluid between the drill pipe and the 8-5/8" casing remained stationary during the time that the valve was open.
3. When the drill pipe was removed 90' of oily, gasy mud fluid and 1910' of oil was found in the drill pipe above the tester, equivalent to 1.3 and 27.4 bbl. respectively.
4. The pressure bomb chart showed that the tester valve was open for 30 minutes.

The test was completed at 1:30 p.m.

The shut-off is approved.

R. D. BUSH
State Oil and Gas Supervisor

By Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T. 1-33264

Los Angeles, Calif. October 29, 1937

Mr. Ed Jusser, Jr.

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

"OIL OPERATORS, INC."

Operations at your well No. 1 Sec. 13, T. 4S., R. 13W., S. E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by

G. Peirce, representative of the supervisor,
on Oct. 15, 1937. There was also present H. E. Winter, Engineer,

and B. W. Messer, Driller.


The operations were performed for the purpose of demonstrating that the formations between 757' and 4106' were mudded until the loss was not more than 5 bbl. per hr.,

and the data and conclusions are as follows:

MR. WINTER REPORTED THE FOLLOWING:

1. A 12½" rotary hole was drilled from 757' to 4106' and a 7-5/8" rotary hole was drilled from 4106' to 4110'.
2. Mud fluid was circulated for 2 hr. prior to the test.
3. No record was kept of the loss of mud fluid prior to the test.
4. The drill pipe was hanging at 4070' during the test.
5. Cores were taken from the following important depths:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4010'</td>
<td>gray sand</td>
</tr>
<tr>
<td>4040'</td>
<td>gray sand</td>
</tr>
<tr>
<td>4058'</td>
<td>shale</td>
</tr>
<tr>
<td>4071'</td>
<td>gray sand</td>
</tr>
<tr>
<td>4079'</td>
<td>gray sand</td>
</tr>
<tr>
<td>4092'</td>
<td>shale</td>
</tr>
<tr>
<td>4106'</td>
<td>oil sand</td>
</tr>
</tbody>
</table>

THE ENGINEER NOTED THAT during a circulation test from 10:30 a.m. to 11:00 a.m. mud fluid was lost from the pit at the rate of 3 bbl. per hr.

THE MIDDING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

Oral approval given to cement 8-5/8" casing at 4106' is hereby confirmed.

cc: H. E. Winter

Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By: [Signature] Deputy
629 South Hill Street  
Los Angeles, California  
October 3, 1937.

Union Oil Company of California,  
Santa Fe Springs, Calif.  

Gentlemen:  
Attention Mr. H. E. Winter.

This will acknowledge receipt of and thank you for your letter of October 7, 1937, giving the elevation of your well No. "Oil Operators, Sect. 1, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field, as 56.54 feet, U. S. G. S.

Our records have been corrected accordingly.

Yours truly,

[Signature]

Deputy Supervisor.

CG - Mr. R. D. Bush (2)  
Long Beach
Santa Fe Springs, Calif. Oct. 7, 1937

Mr. E. Huguenin,
Depty Supervisor,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators, Inc. #1" in the Long Beach Field (Sec. 13-4S-13W), is 56.84 ft., U.S.G.S.

Our records have been corrected accordingly.

Very truly yours,

Henry E. Winter
District Engineer.
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T1-33187

Los Angeles, Calif. October 22, 1937

Mr. Ed Jussen, Jr.
Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. 13, T. 13 W., R. 13 S., B. & M., Long Beach Field, in Los Angeles County, were witnessed by O. Peirce, representative of the supervisor, on Oct. 3, 1937. There was also present R. Rampton, Engineer, and G. Bussett, Driller.

Casing Record 13-3/8" casing 757'. T. D. 757'. Junk ___

The operations were performed for the purpose of demonstrating that the known surface waters are adequately protected.

and the data and conclusions are as follows:

THE ENGINEER ARRIVED AT THE WELL AT 3:30 P.M. AND MR. RAMPTON REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 757'.
2. 763' of 13-3/8" - 45.97 lb. casing was run into the hole to 757'.

THE ENGINEER NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 757' with 350 sacks of Velo cement.
2. The cement was displaced with 662 cubic feet of drilling fluid under a final pressure of 100 lb.
The test was completed at 4:30 p.m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT the known surface waters are adequately protected.

cc- H. E. Winter
Long Beach
GP: G

R. D. BUSH
State Oil and Gas Supervisor

By

Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31200

Los Angeles, Calif. August 16, 1937

Mr. Ed Jussaen, Jr.
Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS, INC." I
Section 13, T. 38 S., R. 15 W., S. B. & M., Long Beach Field, Los Angeles County,
dated Aug. 9, 1937, received Aug. 11, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:
"The well is 555' S-W'ly along the prolongation of the center line of the W'ly portion of San
Antonio Drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles.
The elevation of the derrick floor above sea level will be determined later (Approx. 50')."
We estimate that the first productive oil or gas sand should be encountered at a depth of
about 700 feet, more or less."

PROPOSAL:
"We propose to use the following strings of casing, either cementing or landing them as herein
indicated: Size of Casing Weight New or Second Hand Depth Landed or Cemented
13-3/8" 46 New 700 Comtd.
8-5/8" 36 New 4100 Comtd.
6-5/8" Perf. liner 26 New 4150 Landed

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before
cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:
1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the
well and the column of mud fluid shall be maintained at all times to the surface, parti-
cularly while pulling the drill pipe.
(b) Adequate blow-out prevention equipment shall be provided and ready for operation at all
times.
2. Any hole to be sidetracked at any time during the drilling of this well shall be completely
filled with cement.
3. The formations to be left back of the 8-5/8" casing shall be mudded by open circulation
until the loss is not more than 5 bbl. per hr.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   (a) The cementing of the 13-3/8" surface casing.
   (b) Final mudding operations before cementing the 8-5/8" casing.
   (c) A test of the effectiveness of the 8-5/8" shut-off.

cc: H. E. Winter
    Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By

Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well
This notice must be given before drilling begins

General Exploration Co.

SANTA FE SPRINGS, Cal. AUGUST 9, 1937

Mr. HUGUENIN
Deputy State Oil and Gas Supervisor
Los Angeles, Calif., Cal.

Dear Sir:

"Oil Operators!"

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. 13-W, S.B. B. & M., Long Beach Oil Field, Los Angeles County, Los Angeles, Calif.

Lease consists of 566' S-W'ly along the prolongation of the center line of the W'ly portion of San Antonio Dr., drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles will be determined later (Approx. 60').

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing, Inches</th>
<th>Weight, Lb. Per Foot</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot;</td>
<td>46</td>
<td>New</td>
<td>700</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4100</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>6-5/8&quot; Perf. liner 26</td>
<td></td>
<td>New</td>
<td>4150</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

We estimate that the first productive oil or gas sand should be encountered at a depth of about feet, more or less.

Respectfully yours

Address: Santa Fe Springs, Calif.

Telephone number: Whittier 426-87

UNION OIL COMPANY OF CALIFORNIA
(Name of Company or Operator)

By District Engineer.
Pacific Energy Resources Ltd.

"Oil Operators" 1

Sec. 13-4S-13W.

Casing shoe depth: Driller
757 ft. Started run 5:45 p.m.
757 ft. Finished run 8:00 p.m.

Bottom Depth: Driller
4041 ft. Time well occupied by outfit 2 1/4 h.
4043 ft. Time waiting at well 0:45 h.

Max. depth reached by lower electric 3286 ft. Mileage incurred by run 15 M.
Max. footage measured (p or S.P.)

Footage missed

Total time incurred by run 4 h.

MUD CHARACTERISTICS

NATURE: natural
DENSITY: 73

VISCOITY: 34
RESISTIVITY: 10.4

DIAMETER OF HOLE

12 1/4" to 4000 ft.
7 5/8" to 4041 ft.

REMARKS

Device: 20"

Witnessed By: Mr. Winter

OBSERVERS: J. WALSTROM

RESISTIVITY LOG

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG (ohms. m²/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>30</td>
<td>--- 150 m.V. ---</td>
</tr>
</tbody>
</table>

POROSITY LOG

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>POROSITY LOG (millivols)</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>
**Intersection of Oil Operators #1**

**WELL:** Oil Operators #1  
**RUN NO.:** Second  
**ELEVATION:** Sec. 13-4S-13W  
**FIELD:** Long Beach  
**COUNTY:** Los Angeles  
**STATE:** California  

<table>
<thead>
<tr>
<th>Casing shoe depth:</th>
<th>Driller</th>
<th>Bottom Depth:</th>
<th>Schlumberger</th>
<th>Max. depth reached by lower elect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4105 ft. Started run</td>
<td>4013 ft. Finished run</td>
<td>4532 ft. Time well occupied by out fit</td>
<td>4532 ft. Time waiting at well</td>
</tr>
<tr>
<td></td>
<td>4:15 p.m.</td>
<td>5:45 p.m.</td>
<td>13:45 p.m.</td>
<td>10 a.m.</td>
</tr>
<tr>
<td></td>
<td>427 ft. Mileage incurred by run</td>
<td>1 ft. Total time incurred by run</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 M.</td>
<td>5 h.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DIAMETER OF HOLE**

from...to... 4532 ft.  7-5/8"  
from...to...  
from...to...  
Bottom Temperature 126°F  

**MUD CHARACTERISTICS**

- **Nature:** Natural  
- **Weight:** 72  
- **Viscosity:** 500 cc Marsh Funnel 32  
- **Resistivity:** $8.9 @ 25°F$

**REMARKS**

- Device: Long  
- Note: 60 Ohms scale attached at bottom  

- Depth measurements taken from: Top of rotary table  
- Maximum Pull 1600 lbs. at 4532 ft.  
- Witnessed By: Mr. Winter  

**DATE:** August 13, 1939  
**OBSERVERS:** V. T. FAINT

**RESISTIVITY**  

**SELF-POTENTIAL**
REPORT OF PROPERTY AND WELL TRANSFER

Field or county
Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.

Former owner
Pacific Energy Resources

Operator code
P0250

Date
7/10/2007

Name and location of well(s)
See Attachment

Description of the land upon which the well(s) is (are) located
See Attachment

Date of transfer, sale, assignment, conveyance, or exchange
06/14/2007

New owner
Pacific Energy Resources Ltd.

Operator code
P0250

Type of organization
Partnership

Address
111 West Ocean Blvd
Long Beach, CA 90802

Telephone No.
(562) 628-1526

Reported by
OG30A Both Signed

Confirmed by

New operator new status (status abbreviation)
PA

Request designation of agent
Darren Katic, Agent

Old operator new status (status abbreviation)
NPI

Remarks
See Operator File

OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Producing Active</td>
</tr>
<tr>
<td>NPA</td>
<td>No Potential, Active</td>
</tr>
<tr>
<td>PI</td>
<td>Potential Inactive</td>
</tr>
<tr>
<td>NPI</td>
<td>No Potential, Inactive</td>
</tr>
<tr>
<td>Ab</td>
<td>Abandoned or No More Wells</td>
</tr>
</tbody>
</table>

FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Record Type</th>
<th>Initials</th>
<th>Date</th>
<th>Record Type</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map and book</td>
<td></td>
<td></td>
<td>Notice to be cancelled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond status</td>
<td></td>
<td></td>
<td>EDP files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Files</td>
<td></td>
<td></td>
<td>Production reports</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OGD156 (5/98)
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY CORP.
SEE OGD156 DATED 5-13-94
REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California
March 9, 1993

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Dr., Suite 16
BAKERSFIELD CA 93309

Your report of the plugging and abandonment of well NWLBU 8-1, A.P.I. No. 037-09792, Section 13, T. 4S, R. 13W, S.B. B.& M., Long Beach Field, Los Angeles County, dated 10-6-92, received 10-7-92, has been examined in conjunction with operations witnessed and records filed in this office. We have determined that all of the requirements of this Division have been fulfilled.

NOTE: Surface plugging completed on 7-3-92.

William F. Guerard, Jr.
Acting State Oil and Gas Supervisor

By
For R. K. Baker, Deputy Supervisor

KMCdf
cc: Update
Conservation Committee
L.A. County Assessor
L.A. County Fire Prevention Bureau
Don Callow, City of Signal Hill
DIVISION OF OIL AND GAS

Company: Pecho Resources, Inc.  Well No.: K26641 8.1
API No.: 037-09798  Sec. 13, T. 48, R. 18W, S.B. B&M.
County: Los Angeles  Field: Long Beach

RECORDS RECEIVED  DATE  STATUS
Well Summary (Form OGl00)  10/7/82  Producers - Oil
History (Form OGl03)  10/7/82  Water Disposal
Core Record (Form OGl01)  10/7/82  Idle - Oil
Directional Survey
Sidewall Samples
Other
Date final records received
Electric logs:

ENGINEER'S CHECK LIST
1. Summary, History, & Core record (dupl.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production
14. E Well on Prod., enter EDP
15. Directional Survey

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGl59 (Final Letter) 3/1/93
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)
8. EDP (F-OGD42A-1, 2)

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED  2/11/93

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK  3-8-93

LONG BEACH OFFICE - USE REVERSE SIDE
SUBMIT IN DUPLICATE
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Petro Resources, Inc.  Field Long Beach  County Los Angeles
Well NWLB#8-1  Sec. 13  T 4S  R 13W  S.B.B. & M.
A.P.I. No. 037-99792  Name Joe D. Rose  Title (Person submitting report)
Date Oct. 6, 1992  (President, Secretary or Agent)

Signature

4200 Easton #16, Bakersfield, Ca. 93309  (805) 323-4118 or 323-6922

(Date)

History must be complete in detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

1/31/84 Ran 3-3/4" bailer to 518'. Bailed pieces of wood. Ran 6-3/4" bit.
2/3/84 Drill and mill wood and steel to 558'. Ran I.B., appears to be angle iron in hole. (Mill worn down on outside 6" diameter).
2/6/84 7" I.B. to 551'. Mark on outside of 7". Ran in sawtooth on 2-7/8" to 551'. Ran 1-1/4" tubing to 551'. No go.
6/2/92 Pickup power swivel, spools for wellhead etc. Short day.
6/3/92 7" I.B. to 551'. Mark on outside of 7". Ran in sawtooth on 2-7/8" to 551'. Ran 1-1/4" tubing to 551'. No go.
6/4/92 7" I.B. to 551'. Torque up, pull 32,000#, slipped off. Ran again to 554', won't go. Torqued up.
6/5/92 Ran 7-3/8" shoe and 1 ft. washerov pipe. Wash 551-554'. Pull @ 25,000# to free string.
6/7/92 Ran 4-3/8" magnet. Recovered 2 gallons of metal pieces and wood. Bolt pieces, pipe fragments, etc. Ran 4-5/8" mill, mill to 558'. Ran I.B. -- indeterminate.
6/8/92 Ran 4-1/2" washerov shoe, c.o. to 564'. POOH, recover 6' - 3-1/2" OD metal tube split and twisted w/ID of interior full of redwood pieces and splinters. Ran again, wouldn't go. Blanks off like we inside of a core inside of wood.
6/9/92 Ran 4-9/16" junk mill, c.o. to 573'. Lots of wood and some metal shavings. Ran 7-5/8" 2 cone bit, c.o. to 575'. Wood and metal.
6/11/92 Load out tools. Rig up 10-900 double gate BOP. Shoot 8-1/2" holes 578-70'. RIH with Baker permanent cement retainer set at 537'. Pump away at 0-200 psi.
7/3/92 Cut off casing 8' below ground level and welded on metal cap. Both strings observed to be full of cement.
Report on Operations

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Dr., Suite 16
BAKERSFIELD CA 93309

Long Beach, Calif.
July 13, 1992

Your operations at well NWLBU 8-1, API No. 037-09792, Sec. 13, T. 48S, R. 13W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on 7-3-92 by J. Hebein, Engineer, representative of the supervisor, was present from 1400 to 1405. There were also present Dave Dahlman.

Present condition of well: 13 3/8" cem 757'; 3 5/8" cem 4105', cp 570'; 6 5/8" ld 4024'-4529', cp 4475'. Junk below 580'. TD 4532'. Bp 4200'. Plugged w/cem 4529'-4443', 4200'-4124', w/523 sx cem below 535' & w/cem 535'-8'.

The operations were performed for the purpose of witnessing the plugging operations in the process of abandonment.

DECISION:

APPROVED.

NOTE: The required Class II2M blowout prevention equipment was inspected and approved on 6-18-92.

DEFICIENCIES: None.

CONTRACTOR: Finley Oil Well Service, Inc.

Surface Inspection Approved 7-14-92

JH: df

cc: Update Callow, Signal Hill

K. P. Henderson, Acting Chief
State Oil and Gas Supervisor

By R. K. Baker
Deputy Supervisor
for R. K. Baker
DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator: Petro Resources, Inc.  Well No.: NWL BU 8-1
Field: Long Beach, County: Los Angeles  On: 7/13/92
Mr./Ms.: J. Hebein, representative of the supervisor, was present from 9:00 to 9:05.
There were also present: Dave Dahlman, Pacific Energy Resources
Casing record of well: 3 7/8 cam 757', 8 5/8 cam 4105', CP 570'; 6 5/8 id 4024 -
4529', CP 4475'. Junk below 580'. TD 4532'. Bp 4200'. Plugged W/cem-
4529' - 4443', 4200' - 4194', 1/2 23 5/8 x 7. Jem below 535' + W/cem 535' - 8'.
The operations were performed for the purpose of

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @ ________ is approved.

Hole size: _______" fr. _______" to _______", _______" to _______" & _______" to _______"

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed Away</th>
<th>Final Press.</th>
<th>Perfs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top</td>
<td>Bottom</td>
<td>MO-Depth</td>
<td>Volume</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

BID 264/300 @ 200 psi.

Casing/tubing recovered: _______" shot/cut at _______", _______", _______" pulled fr. _______";
_________" shot/cut at _______", _______", _______" pulled fr. _______".

Junk (in hole): below 580'.

Hole fluid (bailed to) at _______. Witnessed by

<table>
<thead>
<tr>
<th>Mudding</th>
<th>Date</th>
<th>Bbls.</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

- NOTE (K) 11 AM 6/18/92

<table>
<thead>
<tr>
<th>Cement Plugs</th>
<th>Placing</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Sx./cf</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>6/18/92</td>
<td>165 sf</td>
<td>Ret. 535'</td>
<td>0900</td>
</tr>
<tr>
<td>6/18/92</td>
<td>523 sf</td>
<td>Ret. 535'</td>
<td>0900</td>
</tr>
<tr>
<td>C/0 580'</td>
<td>2nd CP 551'</td>
<td></td>
<td>X plate welded on 20&quot; conductor</td>
</tr>
</tbody>
</table>

OOG10 (9/19/91/SM)
DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

None

UNCORRECTABLE DEFICIENCIES:

None

CONTRACTOR:

Finlay Oil Well Service, Inc.
DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: Retro Resources, Inc.  Well: NW/LBU 8-1
Field: Long Beach  County: L.A.
Spud Date:  

VISITS:
1st Date: 01/18/94  Engineer: McSaw
Time: 0800 to 0900  Operator's Rep.: J. Meyers
2nd  
Contractor:  Rig #:  Contractor's Rep. & Title:
Casing record of well:  

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the _______ casing are approved.

Proposed Well Ops: Abandon  MACP: _______ psi  REQUIRED BOPE CLASS: D

Hole size: _____ ft. to _____ ft.  _____ psi to _____ psi

CASING RECORD OF BOPE ANCHOR STRING

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
</tr>
</thead>
</table>

BOP STACK

<table>
<thead>
<tr>
<th>API Symb.</th>
<th>Ram Size (in.)</th>
<th>Manufacturer</th>
<th>Model or Type</th>
<th>Vert. Bore Size (in.)</th>
<th>Press. Rtg.</th>
<th>Date Last Overhaul</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 7 1/8&quot;</td>
<td>Shaffer</td>
<td>Mehl 8 3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACTUATING SYSTEM

Accumulator Units Working Pressure: psi
Total Rated Pump Output: gpm
Distance From Well Bore: ft.

<table>
<thead>
<tr>
<th>Accum. Manufacturer</th>
<th>Capacity</th>
<th>Precharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>gal.</td>
<td>psi</td>
</tr>
<tr>
<td>2</td>
<td>gal.</td>
<td>psi</td>
</tr>
</tbody>
</table>

CONTROL STATIONS

Manifold at accumulator unit
Remote at Driller's station
Other: Headwheels

EMERG. BACKUP SYSTEM

<table>
<thead>
<tr>
<th>N2 Cylinders</th>
<th>Press.</th>
<th>Wkg. Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HOLE FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Alarm Type</th>
<th>Audible</th>
<th>Visual</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
<td>B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS AND DEFICIENCIES:

OGD9 (12/90/GSR/1/2M)
PERMIT TO CONDUCT WELL OPERATIONS

Joe D. Rose
PETRO RESOURCES, INC.
4200 Easton Dr., Suite 16
BAKERSFIELD CA 93309

Long Beach, California
June 16, 1992

Your proposal to abandon well NWLBU 8-1, A.P.I. No. 037-09792, Section 13, T. 4S, R. 13W, S.B. B&N., Wilmington field, Northwest Extension area, pool, Los Angeles County, dated 6-12-92, received 6-15-92, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division’s Class II2M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the hole not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. This division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
4. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Witness the clean-out depth.
   b. Witness the placing, location and hardness of the cement plug from 550' to 5' inside and outside the 8 5/8" casing.
   c. Inspect and approve the cleanup of the well site.

NOTES:

1. A crew drill may be required at the time of the blowout prevention equipment inspection.
2. The proposed surface plug shall not contain rock or gravel.
3. The base of the freshwater sands is at 2100'.
4. Report on Operations (OG 109) (T-Report) and Report of Well Abandonment (OG 159) will not be released until all records and histories are on file with this Division.
5. This Division does not recommend building over or in proximity of this well.

KMC:ss
cc: Update
    Don C. Callow, City of Signal Hill

BLANKET BOND

Engineer        Kenneth M. Carlson
Phone          (310) 590-5311

K.P. HENDERSON, Acting Chief
By R.K. Baker, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU 8-1, API No. 037-09792, Sec. 13, T. 48, R. 13W, S.B., B. & M., Long Beach Field, Los Angeles County, commencing work on June 15, 1992.

The present condition of the well is:

1. Total depth: 4532', junk @ 551'

2. Complete casing record, including plugs and perforations:
   - 13-3/8" csg. cmtd. @ 757'
   - 8-5/8" csg. cmtd. @ 4105'
   - 6-5/8" 4024-4529', cp @ 4475'.
   - PB 4520-4443', BP @ 4200'. Cmt. plug 4200-4124'.

3. Last produced N-A
   - N/A (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

4. Last injected Never
   - N/A (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

The proposed work is as follows:

1. Perforate 8 - 1/2" holes at 550'.
2. Set cement retainer at 500', squeeze 250 sxs. through retainer to squeeze below shoe of 13-3/8" surface casing.
4. Cut off casing strings 6' below ground level and level site.

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: 2100'

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 4200 Easton #16
Bakersfield, Ca. 93309

Petro Resources, Inc.

By: Joe M. Rose
Type of Organization: Corporation

(Street) (City) (State) (Zip)

Telephone Number (805) 323-4118

Date: 6-12-92
Vern Rice
PRODUCTION SUPERINTENDENT

2945 Junipero Ave.
Signal Hill, CA
(213) 595-4505

TO:
Ken

FROM:
Vern

REPRESENTING:
(310)

DATE:
6-16
TIME:
11:45
PHONE:
ATSS:

☐ Telephoned
☐ Returned Call
☐ Information
☐ Comment
☐ Investigate
☐ Contact Me
☐ Please call
☐ Will Call Again
☐ NOTE and
☐ Re-route
☐ Return
☐ File
☐ Was In
☐ Wants To See You
☐ My Signature
☐ Copy Me
☐ Forwarded
☐ Per Request

MESSAGE/REMARKS:
Did you get the notice yet?

BY:
FAX (310) 595-0310

STATE OF CALIFORNIA
MESSAGE
STD 7 (REV 1983) 5-4047

PROTECT YOUR
INFORMATION ASSETS
DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLB11 8-1, API No. 037-09792,

Sec. 13, T. 4S, R. 13W, S.E. B. & M. Long Beach Field, Los Angeles County.

commencing work on June 15, 1922.

The present condition of the well is:

1. Total depth: 4532', junk @ 551'.

2. Complete casing record, including plugs and perforations:
   13-3/8" csg. cmt. @ 757'
   8-5/8" csg. cmt. @ 4105'
   6-5/8" 4024-4529', cp @ 4475'
   PB 4320-4443', BP @ 4200'. Cmt. plug 4200-4124'.

3. Last produced
   (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)
   or

4. Last injected
   (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

The proposed work is as follows:

1. Perforate 8 - 1/2" holes at 550'.
2. Set cement retainer at 500', squeeze 250 sxs. through retainer to squeeze below shoe of 13-3/8" surface casing.
4. Cut off casing strings 6' below ground level and level site.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 4200 Easton #16
Bakersfield, Ca. 93309

Telephone Number: (805) 323-4118

Petro Resources, Inc.
By: Joe M. Rose
Type of Organization Corporation

Form 108 (Rev. 1-78)
PETRO RESOURCES INC

Facsimile Transmission Cover Sheet

To: KEN CARLSON DIVISION OF O&G
Receiving FAX telephone: 310/590/5301

1 more page follows this cover page

Sent by:

JOE ROSE

PETRO RESOURCES INC
4200 EASTON DR #16
BAKERSFIELD, CA 93309

FAX Telephone: 805/323/8567
Voice Telephone: 805/323/4118

In case of trouble, contact: 805 323 4118

Sent on 06-12-1992 at 10:56
PETRO RESOURCES INC

Facsimile Transmission Cover Sheet

To: KEN CARLSON    DIVISION OF O&G

Receiving FAX telephone: 310/590/5301

1 more page follows this cover page

Sent by:

JOE ROSE

PETRO RESOURCES INC
4200 EASTON DR #16
BAKERSFIELD, CA 93309

FAX Telephone: 805/323/8567
Voice Telephone: 805/323/4118

In case of trouble, contact: 805 323 4118

Sent on 06-12-1992 at 10:56
<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Hour</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Phillips Co.</td>
<td>12-900</td>
<td>8-900</td>
<td>20.00</td>
<td>180.00</td>
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<td>8-900 PGSR</td>
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<td>1 EA 3 1/2&quot; Lifter</td>
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<td>15.00</td>
<td>30.00</td>
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<tr>
<td>1 SET 1 1/2&quot; Tong Jaws</td>
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<td>45.00</td>
<td>135.00</td>
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<tr>
<td>1 SET 1 3/4&quot; Slip Insets</td>
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<td>20.00</td>
<td>60.00</td>
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<tr>
<td>2 EA 1 3/4&quot; DRILL COLLARS</td>
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<td>10.00</td>
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<td>S &amp; S TRUCK DELIVERY</td>
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<td>98.00</td>
<td>900.00</td>
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<td><strong>Sub Total</strong></td>
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<td><strong>880.00</strong></td>
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<td><strong>Marlin Pacific Trucking</strong></td>
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<tr>
<td>6 3/4&quot; Junk mill</td>
<td>V</td>
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<td><strong>Sub Total</strong></td>
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<td><strong>Jet Bailer</strong></td>
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<tr>
<td>7&quot; Impression Block</td>
<td>6</td>
<td>PER JOB</td>
<td>196.00</td>
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<tr>
<td>4&quot; &quot; &quot;</td>
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<td>&quot; &quot;</td>
<td>98.00</td>
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<tr>
<td>4 3/8&quot; &quot; &quot;</td>
<td></td>
<td>&quot; &quot;</td>
<td>110.00</td>
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<tr>
<td>4 3/8&quot; MAGNET</td>
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<td>&quot; &quot;</td>
<td>100.00</td>
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<tr>
<td><strong>Sub Total</strong></td>
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<td><strong>584.00</strong></td>
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<tr>
<td><strong>Midway Fishing</strong></td>
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<tr>
<td>7&quot; WASHER SHOE</td>
<td>V</td>
<td>IN</td>
<td>155.00</td>
<td>1085.00</td>
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<td>7&quot; W/O EXTENSION</td>
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<td>7&quot; DRIVE SUB F/W/O</td>
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<td>260.00</td>
<td>280.00</td>
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<tr>
<td>6 1/8 Junk mill</td>
<td>V</td>
<td>IN</td>
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<tr>
<td>3 EA X-OVER SUBS</td>
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<td>7 3/8&quot; Bit</td>
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<td>PER 6/100</td>
<td>300.00</td>
<td>300.00</td>
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<td><strong>Sub Total</strong></td>
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<td><strong>Homeco In.&quot;</strong></td>
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<td></td>
</tr>
<tr>
<td>7 3/8&quot; SHOE</td>
<td></td>
<td>PER 3 1/2IN</td>
<td>152.00</td>
<td>1126.00</td>
</tr>
<tr>
<td>7 3/8&quot; W/O PIPE</td>
<td></td>
<td>PER 5 3/8FT</td>
<td>290.00</td>
<td>174.00</td>
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<tr>
<td>7 3/8&quot; DRIVE SUB</td>
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<td></td>
<td>230.110</td>
<td>220.00</td>
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<tr>
<td>6&quot; DRILL COLLAR</td>
<td></td>
<td></td>
<td>58.29</td>
<td>58.00</td>
</tr>
<tr>
<td>6 3/8&quot; Mill, junk</td>
<td>V</td>
<td>IN</td>
<td>185.00</td>
<td></td>
</tr>
<tr>
<td>3 1/2&quot; LIFTER</td>
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<td></td>
<td>25.12</td>
<td>32.00</td>
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<tr>
<td><strong>Steve's Oil Field Trucking</strong></td>
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<td>4 DELIVERIES</td>
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<td>PER 98.00/HR</td>
<td>980.00</td>
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<td><strong>MISC. U/BILLED: Tools &amp; Equip</strong></td>
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<td></td>
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<td><strong>500.00</strong></td>
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<tr>
<td><strong>Sub Total</strong></td>
<td></td>
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<td></td>
<td><strong>1300.00</strong></td>
</tr>
</tbody>
</table>
**Service Report**

**Company:** FIRE RESOURCES INC.

**Lease:** NW LB.

**Well:** X-1

**Field:** LONG BEACH

---

### ROD RECORD

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<tbody>
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<td></td>
</tr>
</tbody>
</table>

---

### PUMP RECORD

- **Pump No. Out:**
  - Make:
  - Size:
  - Plunger:
  - Mandrel:

- **Pump No. In.**
  - Make:
  - Size:
  - Plunger:
  - Mandrel:

---

### TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Size of nipples in tubing string and location:**

**Make of tubing catcher, anchor:**

**Amount of tubing above catcher:**

---

**BAILING RECORD**

- **Make of bailer:**
  - Size:
  - Bailed from:
  - Top. Perf.
  - Bottom Perf.
  - Zero Point
  - Formation

---

**REMARKS:**

Laid out Rig mats - Moved to mud Pump - Pumped MAST - S.D. Til 11 A.M.

---

Well Went Off | A.M. | P.M. | 19 | Well Put On | A.M. | P.M. | 19
--- | --- | --- | --- | --- | --- | --- | ---
Production | | | | Production | | |

---

**HOIST**

- MAST
- SAND LINE
- PUMP
- SWIVEL

**START** | **STOP** | **HOURS**
--- | --- | ---

- **PUSHER**
  - R. SCHERER
  - 2:30 p.m
  - 4:30 p.m
  - 2

- **HELPER**
  - A. MEDINA
  - 2:30 p.m
  - 4:30 p.m
  - 2
Service Report

Company: PETRO RESOURCES INC.

Lease: NW 6
Well: 8-1

Field: LONG BEACH, CAL.

ROD RECORD

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</tbody>
</table>

PUMP RECORD

Pump No. Out: Make Size Plunger Mandrel
Pump No. In: Make Size Plunger Mandrel

TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
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</table>

Size of nipples in tubing string and location

Make of tubing catcher, anchor: Size

Amount of tubing above catcher:

BAILING RECORD

Amount of tubing below catcher:

Maker of bailer: Size Bailed from to Formation

Fluid Level: Top. Perf. Bottom Perf. Zero Point

REMARKS: REMOVE WELL HEAD - MY 7" IMPRESSION BLOCK - JET BAILEY - R.I.H. - STACKED OUT @ 651 - P.O.H. - IN. 1 B
1" WIDE MARK ON OUTSIDE OF FACE ON 1#R - R.I.H. "OPEN END" TBE. - STOPPED @ 651 - UNABLE TO WORK PAST 551
P.O.H. - R.I.H. 7 1/2" CAR - STOPPED @ 551 UNABLE TO GET PAST 551 - P.O.H. - MY JET BAILEY 4" 1 B, 8 R.I.H. - STACK OUT @ 551 - P.O.H. - 1 B. INDICATES PARTED OR BAD CSG.
@ 551 - MY 1 1/4" TBS. ON 2 1/4 TBS. 8 R.I.H. - UNABLE TO GET PAST 551 W/ 1 1/4" TBS. - P.O.H. - SECURE WELL LAY WATER LINE TO WELL 8-1

Rig's Crew 15030

Well Went Off: A.M. 19
Production: P.M.

Well Put On: A.M. 19
Production: P.M.

<table>
<thead>
<tr>
<th>HOIST</th>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>MAST</td>
<td>6:30AM</td>
<td>3:30PM</td>
<td>9HRS</td>
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<tr>
<td>SAND LINE</td>
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<tr>
<td>PUMP</td>
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<td></td>
</tr>
<tr>
<td>SWIVEL</td>
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<table>
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<tr>
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<th>6:30AM</th>
<th>3:30PM</th>
<th>9HRS</th>
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<tr>
<td>WHEELER</td>
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<td></td>
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HELD
## Service Report

**Company:** Fetro Resources Inc.  
**Lease:** N/JLB  
**Field:** Long Beach, CA  

### Rod Record

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### Pump Record

<table>
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<tr>
<th>Pump No. Out</th>
<th>Make</th>
<th>Size</th>
<th>Plunger</th>
<th>Mandrel</th>
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<tr>
<td>Pump No. In</td>
<td>Make</td>
<td>Size</td>
<td>Plunger</td>
<td>Mandrel</td>
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### Tubing Record

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<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
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<tbody>
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Size of nipples in tubing string and location:

Make of tubing catcher, anchor:

Amount of tubing above catcher:

### Bailing Record

<table>
<thead>
<tr>
<th>Maker of bailer</th>
<th>Size</th>
<th>Bailed from</th>
<th>to</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
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Fluid Level:

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<tr>
<th>Top. Perf.</th>
<th>Bottom Perf.</th>
<th>Zero Point</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Remarks:** MOVED IN POWER SWIVEL & N/U PUMP & HANG BACK 10 DEGREES. N/U HOSES & CROSS-OVER & POOL TO KCRP. SHUT ON UNTIL AM 6:52 TO RECEIVE WASH OVER PIPE & MISE CP & FISHING TOOLS.

---

**Pics & Crew**

---

**Sub Pay**

---

**No Accidents**

### Well Logs

<table>
<thead>
<tr>
<th>Well Went Off</th>
<th>A.M.</th>
<th>Well Put On</th>
<th>A.M.</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>P.M.</td>
<td>Production</td>
<td>P.M.</td>
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</tr>
<tr>
<td>19</td>
<td></td>
<td>19</td>
<td></td>
<td>3.5</td>
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</table>

### Start & Stop Times

<table>
<thead>
<tr>
<th>Hoist</th>
<th>6:30 A.M.</th>
<th>10:30 A.M.</th>
<th>3.5</th>
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<tbody>
<tr>
<td>Mast</td>
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<tr>
<td>Sand Line</td>
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<tr>
<td>Pump</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Swivel</td>
<td></td>
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</tbody>
</table>

### Pusher & Helpers

- **Pusher:** Wheeler
  - 6:30 A.M. - 10:30 A.M.  
  - 3.5 Hours

- **Helper:** J. Medina
  - 6:30 A.M. - 10:00 A.M.  
  - 3.5 Hours

- **Helper:** M. Medina
  - 6:30 A.M. - 10:00 A.M.  
  - 3.5 Hours

- **Helper:** E. Hart-Sack
  - 6:30 A.M. - 10:00 A.M.  
  - 3.5 Hours

---
Company: Petro Resources Inc.
Lease: WUB
Field: Long Beach CA

ROD RECORD

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</table>

PUMP RECORD

Pump No. Out: Make: Size: Plunger: Mandrel:
Pump No. In: Make: Size: Plunger: Mandrel:

TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
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</table>

DAILY COST ON FISHING TOOLS $2465.00 Approx

Size of nipples in tubing string and location
Make of tubing catcher, anchor: Size: Amount of tubing above catcher:

BAILING RECORD

Amount of tubing below catcher:

Maker of bailer: Size: Bailed from: to: Formation:

Fluid Level: Top. Perf.: Bottom Perf.: Zero Point:

REMARKS:
- Service Rig & Components, RIH NY OPED BOD 3 JOB. A CHANGE OVER to FRESH WATER/DIRT FLUID, RECEIVE A UPLOAD WASH-OVER A MISCELLANEOUS TOOLS.
- PICK UP OTHER W/O TOOLS & MEASURING IN 8 1/8" AREA OF FLAT BUN.
- SHOE WASH OUT #1 @ 947.43' RTB TO 534.48' +/- SHOE TO 614' INDICATED.
- PULL EST FISH ENTERED FULL LENGTH OF SHOE. 20-30,000' STRIP WIT 5 FREE (BEFORE PH). STRIP UP TO 47' 9450' W/TIME WERE 10,000' DISTANCE TOWING W/O OPER. DUE TO LACK OF COLLAR WIT. SECURE WELD SHUT DOWN. WIT 10-8-92 ORDERED 2 AREA 80' 47.52' +/- O.D. & DD BORE SHOE & ADD CUTTER SURFACE TO INSIDE BORE 4/120

Crew Only 14 Hrs @ 117.00  Total $1680.00 #1810.00

Sub Pay

Power Swivel & Mud Pump 1080.00

Well Went Off A.M. 19
Production P.M. 19

<table>
<thead>
<tr>
<th>HOIST</th>
<th>MAST</th>
<th>SAND LINE</th>
<th>PUMP</th>
<th>SWIVEL</th>
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<tr>
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<thead>
<tr>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>6AM</td>
<td>4PM</td>
<td>10</td>
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</table>

Crew Only

Rig & Crew 4 Hrs @ 167.00 Total $418.00

Sub Pay

Power Swivel & Mud Pump 980.00

Well Put On A.M. 19
Production P.M. 19
**FINLEY OILWELL SERVICE INC.**

**Company:** Petro Service Inc.

**Lease:** HWLB

**Field:** Long Beach

**Service Report**

**JOB No 49986**

**Date:** 6-8-92

**No Work Order No.**

**ROD RECORD**

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**PUMP RECORD**

- **Pump No. Out.**
  - Make
  - Size
  - Plunger
  - Mandrel

- **Pump No. In.**
  - Make
  - Size
  - Plunger
  - Mandrel

**TUBING RECORD**

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</table>

Size of nipples in tubing string and location.

Make of tubing catcher, anchor

Amount of tubing above catcher.

**BAILING RECORD**

- **Maker of bailer.**
  - Size
  - Bailed from
  - to
  - Formation

- **Fluid Level.**
  - Top, Perf.
  - Bottom Perf.
  - Zero Point

**REMARKS**

SEE EQMT. ALUM. RAIL 7" HT 10' WORKOVER SHOE EXT.\\nTop Sub, Spooled #6 TYP 6 1/2" 00 PULL 7 9/16" 00 W/ 1 1/4" TO. 00 8 1/2" 00 550, 85” H. DOWNS OVER TO 533’ TORQUE TO 22,000 13,000 PULL FISH 10. ATTEMPT TO WORK OVER A GET BACK TO 533’ UNABLE TO GET BELOW 533’ UNABLE TO GET

**No Accidents**

Well went off A.M.

Production:

- **A.M.**
  - 19

Well put on A.M.

Production:

- **A.M.**
  - 19

<table>
<thead>
<tr>
<th>HOIST</th>
<th>MAST</th>
<th>SAND LINE</th>
<th>PUMP</th>
<th>SWIVEL</th>
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<thead>
<tr>
<th>START</th>
<th>STOP</th>
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<td>4:30 A.M.</td>
<td>10 P.M.</td>
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<th>HOURS</th>
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<td>5 1/2</td>
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</table>

**Pusher:** C. Wheeler

**Helper:** A. Mejina

**Helper:** J. McCall

**Helper:** G. Hartsock

**Helper:**
Service Report

Job No: 49987

Date: 6-9-92

Lease: FM L.B.  Well: 81

Field: Song Beach

ROD RECORD

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PUMP RECORD

Pump No. Out: Make  Size  Plunger  Mandrel
Pump No. In: Make  Size  Plunger  Mandrel

TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
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<th>No. Joints Run</th>
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</table>

Size of nipples in tubing string and location

Make of tubing catcher, anchor: Size  Amount of tubing above catcher

BAILING RECORD

Amount of tubing below catcher

Maker of bailer: Size  Bailed from: to: Formation

Fluid Level

Top. Perf.  Bottom Perf.  Zero Point

Remarks:

Drill, Equip, mean, MPH 1 1/4 in. 17/80 17/10 0 Diamond window
section above. TAP @ 55-4 in. 2 1/2 repeaters 5 3/4 in. 2 1/2 diameters. Bailed out. Approx. 1' 1/2 over 1st. Bit of outside of above showing wear. Drilled 3 1/2 in. 3 1/2 at 19'-8 4/8 pipe line bit to drill 2' getting hang. Strings of wood and metal scales. Poth 55' 4' 1/4 20 4.0 8 1/4 bit x 1/4 1/2. Secure well & shut down to Am. 6-10-92

Pie & Coerc: $1252.50
Sub Total: 40.00
Lower Service: 300.00
Total: $1892.50

No Acc.

Well Went Off  A.M.  Well Put On  A.M.
Production  P.M.  19  Production  P.M.  19

<table>
<thead>
<tr>
<th>Start</th>
<th>Stop</th>
<th>Hours</th>
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<tbody>
<tr>
<td>5:30 A.M.</td>
<td>2:00 A.M.</td>
<td>7 1/2</td>
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</table>

Hoist: 4

Pump

Swivel

Pusher

Helper

Helper

Helper

Helper
Service Report

Job No. 49988

Date: 4-10-92

Work Order No. ___________

Company: _________________
Lease: _________________
Field: _________________

ROD RECORD

|------|----------------|--------------|----------------|--------------|--------|

PUMP RECORD


TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
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</thead>
</table>

Size of nipples in tubing string and location:

Make of tubing catcher, anchor: ___________ Size: ___________ Amount of tubing above catcher: ___________

BAILING RECORD

Amount of tubing below catcher: ___________

Maker of bailer: ___________ Size: ___________ Bailed from ___________ to ___________ Formation: ___________

Fluid Level: ___________

Top Perf.: ___________ Bottom Perf.: ___________ Zero Point: ___________

REMARKS: ___________

STRIGER TRUCK @ 6:30am on 5/14/90 Same 35' C.H.A R.I.H. at Pilot. Coreuster mill ran @ 53' mill to 33' P.O.H. @ 10:00am. Plunger at 12.5' showed 2 R.I.H. Reverse clean @ 35'. Coreuster Coreuster 35' @ 24 X 1/4' Wear Pattern on pilot. R.I.H. down 1 mile to get Patterns. P.O.H. 35' circle was pattern. P.O.H. R.I.H. 7' Impressen Block, No gravel restressed. P.O.H. 7.5' high mill on 6" drill. Corebuster 35' mill to 33' P.O.H. @ 12 Wear Pattern. Indicated 6' 3/4" metal tube w/ Smaller cicular or insides same. Run 2 3/4" STRIGER at 35' Secure well shut on until am 4-11-92.

West Coast #3 187' @ 16 7/8'

40° N, 119° W, Drilling Site

2477.00 Total

Well Went Off Production A.M. ___________ P.M. ___________

Well Put On Production A.M. ___________ P.M. ___________

<table>
<thead>
<tr>
<th>HOIST</th>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
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<tbody>
<tr>
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<tr>
<th>PUSHER</th>
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<tbody>
<tr>
<td>J. Wheeler</td>
<td>6am</td>
<td>5pm</td>
<td>11</td>
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<tr>
<th>HELPER</th>
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<tr>
<td>H. Nellis</td>
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<tr>
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<tbody>
<tr>
<td>H. Hardwick</td>
<td>6am</td>
<td>5pm</td>
<td>11</td>
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</table>
**Service Report**

**JOB No 49989**

**Company:** Petro Resources Inc.

**Lease:** N.W. 1/4

**Well:** 8-1

**Field:** Long BEACH

### ROD RECORD

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### PUMP RECORD

<table>
<thead>
<tr>
<th>Pump No. Out</th>
<th>Make</th>
<th>Size</th>
<th>Plunger</th>
<th>Mandrel</th>
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<tr>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump No. In</th>
<th>Make</th>
<th>Size</th>
<th>Plunger</th>
<th>Mandrel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

### TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
<th>Total Feet in Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Size of nipples in tubing string and location

Make of tubing catcher, anchor

Amount of tubing above catcher

### BAILING RECORD

<table>
<thead>
<tr>
<th>Maker of bailer</th>
<th>Size</th>
<th>Bailed from</th>
<th>to</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fluid Level

Top Perf.

Bottom Perf.

Zero Point

**REMARKS**

- Equip. Air Compressor leaking. Will S.E. notify tech services.
- 3 inlet 5 1/2" and 5 1/4" of Impetion Block. The C 6 3/16". Set Block up. on
- 3" Joint. 3 1/2" of Nipple to. Set Nipple on obstruction.
- 5 1/4". Re-Run I.B. Block with Impetion Block mounted on Obstruction.
- Laid 4 1/2" mill 4 1/2" to 5 3/16" Junk Sub above mill. The 5 3/16" Packed up to scarce 4 3/8" and 4 1/4" of 4 1/2" mill.
- No. 4 1/2" outside wear. 3 1/2" Circular was solid 2" center worn cutten.
- Secured well & shut in.

**Rig & Crew**

<table>
<thead>
<tr>
<th>1085-20</th>
<th>$1725-30</th>
<th>Total</th>
</tr>
</thead>
</table>

**Swivel & Pump**

<table>
<thead>
<tr>
<th>600-00</th>
<th>40-00</th>
</tr>
</thead>
</table>

Well went Off

Production

A.M. 19

Well Put On

Production

A.M. 19

<table>
<thead>
<tr>
<th>HOIST</th>
<th>MAST</th>
<th>SAND LINE</th>
<th>PUMP</th>
<th>SWIVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**START | STOP | HOURS**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 A.M.</td>
<td>1 P.M.</td>
<td>6 Hrs</td>
</tr>
</tbody>
</table>

**PUSHER**

<table>
<thead>
<tr>
<th>3-08 A.M.</th>
<th>1 P.M.</th>
<th>6 Hrs</th>
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</table>

**HELPER**

<table>
<thead>
<tr>
<th>6-30 A.M.</th>
<th>1 P.M.</th>
<th>6 Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-30 A.M.</td>
<td>1 P.M.</td>
<td>6 Hrs</td>
</tr>
<tr>
<td>6-30 A.M.</td>
<td>1 P.M.</td>
<td>6 Hrs</td>
</tr>
</tbody>
</table>
REPORT OF PROPERTY AND WELL TRANSFER

<table>
<thead>
<tr>
<th>Field or county</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Beach</td>
<td>1</td>
</tr>
</tbody>
</table>

**Former owner**

**Sun Exploration & Production Co.**

**Date**

June 15, 1983

**Name and location of well(s)**

- NWLBU 5-1 (037-09795) NWLBU 8-1 (037-09792) NWLBU 9-3 (037-09791)
- NWLBU 5-2 (037-00397) NWLBU 8-2 (037-09793) NWLBU 9-4 (037-00392)
- NWLBU 5-3 (037-09796) NWLBU 8-3 (037-06496) NWLBU 9-5 (037-00142)
- NWLBU 5-4 (037-09797) NWLBU 8-4 (037-06415) NWLBU 9-6 (037-00393)
- NWLBU 6-1 (037-09788) NWLBU 8-7 (037-22512)
- NWLBU 6-2 (037-09789) NWLBU 9-2 (037-13525)

Description of the land upon which the well(s) is (are) located

**Date of transfer, sale, assignment, conveyance, or exchange**

May 1, 1983

**New owner**

Petro Resources, Inc.

4200 Easton Drive, Suite 16
Bakersfield, CA 94309

**Type of organization**

Corp.

**Telephone No.**

805/323-4118

**Reported by**

Letter from Sun Exploration & Production Co. dated 5-16-83.

**Confirmed by**


**New operator new status (status abbreviation)**

PA

**Request designation of agent**

Joe D. Rose, same address.

**Old operator new status (status abbreviation)**

PA

**Remarks**

**OPERATOR STATUS ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Form OGD121</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPA - No Potential, Active</td>
<td>Form OGD140</td>
<td>NONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1 - Potential Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPI - No Potential, Inactive</td>
<td>Form OGD140</td>
<td>NONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ab - Abandoned or No More Wells</td>
<td>New well cards</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well records</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric logs</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Production reports</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FORM AND RECORD CHECK LIST**

- Map and book
- Notice to be cancelled
- Bond status
- Conservations Committee
- L. A. Assessors

**Deputy Supervisor**

V. F. Gaede

**Signature**

[Signature]
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.
1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California
Oct. 4, 1979

Mr. L. B. Carroll, Jr., Agent
Sun Oil Co.
23928 Lyons Ave.
Newhall, CA 91321

Dear Sir:

Your request dated March 19, 1979, relative to change in designation of well(s) in Sec. 13, T. 4S, R. 13W, S. B. B. & M., Long Beach field, Los Angeles County, District No. 1, has been received; and in accordance with Section 3203, Public Resources Code, reading in part as follows:

"... The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

<table>
<thead>
<tr>
<th>Old Designation</th>
<th>API</th>
<th>New Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Oll Operators&quot;</td>
<td>037-09792</td>
<td>NWLB 8-1</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09793</td>
<td>NWLB 8-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-06496</td>
<td>NWLB 8-3</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-06415</td>
<td>NWLB 8-4</td>
</tr>
<tr>
<td>&quot;Pool&quot;</td>
<td>037-09795</td>
<td>NWLB 5-1</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09796</td>
<td>NWLB 5-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09797</td>
<td>NWLB 5-3</td>
</tr>
<tr>
<td>&quot;Amebco&quot;</td>
<td>037-09788</td>
<td>NWLB 5-4</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09789</td>
<td>NWLB 6-1</td>
</tr>
<tr>
<td>&quot;Flood Control&quot;</td>
<td>037-13525</td>
<td>NWLB 6-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09791</td>
<td>NWLB 9-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-00392</td>
<td>NWLB 9-3</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-00142</td>
<td>NWLB 9-4</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-00393</td>
<td>NWLB 9-5</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td></td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

M. G. Mefford
State Oil and Gas Supervisor

By, Richard W. Stell
Acting Deputy Supervisor
R. A. Ybarra

cc: Update Center
EDP
Conservation Committee
Gentlemen:

This is a request for a change of well designation for the following well(s):

Sec. 13, T. 45, R. 13W, SB, B. & M., Long Beach field, Los Angeles County.

<table>
<thead>
<tr>
<th>OLD WELL #</th>
<th>OLD DESIGNATION</th>
<th>OLD NAME</th>
<th>OIL OPERATORS</th>
<th>NEW WELL</th>
<th>NEW DESIGNATION</th>
<th>NEW NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03709792</td>
<td></td>
<td></td>
<td>8-1</td>
<td>NORTHWEST LONG BEACH UNIT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>03709793</td>
<td></td>
<td></td>
<td>8-2</td>
<td>“”</td>
<td>“”</td>
</tr>
<tr>
<td>3</td>
<td>03706496</td>
<td></td>
<td></td>
<td>8-3</td>
<td>“”</td>
<td>“”</td>
</tr>
<tr>
<td>4</td>
<td>03706415</td>
<td></td>
<td></td>
<td>8-4</td>
<td>“”</td>
<td>“”</td>
</tr>
</tbody>
</table>

RS/Dave Williams 9/25/79
OK to use "NWLB"U"

[Signatures]

Dane Oil Co.
(Name of Operator)

23928 Lyons Ave
(Address)

Newhall, Calif 91321

Form 42 (10/71)
Division of Oil and Gas

Gentlemen:

This is a request for a change of well designation for the following well(s):

Sec. 13, T. 45 S., R. 13 W., SB B. & M., Long Beach field, Los Angeles County.

<table>
<thead>
<tr>
<th>OLD WELL #</th>
<th>OLD DESIGNATION</th>
<th>OLD NAME</th>
<th>NEW WELL #</th>
<th>NEW DESIGNATION</th>
<th>NEW NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03709785</td>
<td></td>
<td>5-1</td>
<td>NORTHWEST LONG BEACH UNIT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>03700397</td>
<td></td>
<td>5-2</td>
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</tr>
<tr>
<td>3</td>
<td>03709796</td>
<td></td>
<td>5-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>03709797</td>
<td>ADEBA 80</td>
<td>5-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>03709788</td>
<td></td>
<td>6-1</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>03709789</td>
<td>FLOOD CONTROL</td>
<td>6-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>03712525</td>
<td></td>
<td>9-2</td>
<td></td>
<td></td>
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<td>3</td>
<td>03709771</td>
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<td>9-3</td>
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</tr>
<tr>
<td>4</td>
<td>03700392</td>
<td></td>
<td>9-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>03700142</td>
<td></td>
<td>9-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>03700393</td>
<td></td>
<td>9-6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sun Oil Company
(Name of Operator)

23928 Lyons Avenue
(Address)

Newhall, Calif. 91321

By Jack Andrews

Form 42 (10/71)
## REPORT OF PROPERTY AND WELL TRANSFER

**Field or county:** Long Beach  
**Former owner:** General Exploration Co.  
**Date:** February 15, 1979

### Name and location of well(s)

- **Sec. 11-4S-13W**
  - "Dominguez" 2-10 (037-11859)
- **Sec. 13-4S-13W**
  - "Flood Control" 6 (037-00393)
  - "Oil Operators" 1 (037-09792)
  - "Oil Operators" 2 (037-09793)
  - "Oil Operators" 3 (037-09496)
  - "Oil Operators" 4 (037-06415)
  - "Pool" 1 (037-09795)
  - "Pool" 2 (037-09397)
  - "Pool" 3 (037-08976)
  - "Pool" 4 (037-08797)
- **Sec. 14-4S-13W**
  - "Dominguez" 1 (037-11858)

### Address of the land
- **New owner:** Sun Oil Company  
  - **Address:** 23928 Lyons Avenue  
  - **Newhall, CA 91321**

### Date
- **Dec. 1, 1978**

### Former operator

### New operator

### OPERATOR STATUS ABBREVIATIONS

| PA | Producing Active |
| NPA | No Potential Active |
| PI | Potential Inactive |
| NPI | No Potential Inactive |
| AB | Abandoned or No More Prod. |

### FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
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<tbody>
<tr>
<td><strong>Form OGD12</strong></td>
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<td><strong>Form OGD48</strong></td>
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<tr>
<td>New well logs</td>
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<tr>
<td>Reservoir logs</td>
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<tr>
<td>Production records</td>
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<tr>
<td>TDP Logs</td>
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<td></td>
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<tr>
<td>Reservoir logs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Updated Conservation Committee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deputy Supervisor:** M. B. Albright  
**Signature:**

**Telephone No.:**  
**Type of organization:** Corporation
May 21, 1976

Mr. Robert L. Graves
GENERAL EXPLORATION CO.
4021 N. Pacific Place
Long Beach, California 90806

Dear Sir:

On May 20, 1976, Mr. C. W. Stark, our representative met with Bob Grey, your representative, to witness that one support piling was cut 20 feet below ground level. The Division approves of this method of pile removal if the holes are filled with tamped earth.

Sincerely,

[Signature]

A. B. Stockton
Associate Oil and Gas Engineer

ADS:dr
REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Long Beach

Former Owner: Union Oil Co. of California

Description of Property: Sec. 13, T. 4 S., R. 13 W., S. E. B. & M.

List of Wells: "Oil Operators" 1, "Oil Operators" 2, "Oil Operators" 3 and "Oil Operators" 4. ("Oil Operators" 1, idle; other wells are active)

Date of Transfer: January 1, 1961

New Owner: General Exploration Co. of California
Address: 750 Subway Terminal Building, 417 South Hill Street, Los Angeles 13, Calif.

Telephone No.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)

New Operator New Status: PA
Old Operator New Status: No

Remarks:

Cc: Mr. E. H. Musser
Prod. Dept.
Conservation Committee

Legend:

PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells
NoV—If Transfer Does Not Change Overall Status Enter "No Change"

(S.W. & N.W. of inter Concord Pl. & P.E. Ry.)

Deputy Supervisor: W. C. Bailey
January 11, 1961

General Exploration Co. of California
417 South Hill Street
Los Angeles 13, California

Gentlemen

We have been informed that on January 1, 1961, you acquired Union Oil Company of California wells No. "Oil Operators" 1, "Oil Operators" 2, "Oil Operators" 3 and "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field.

Please furnish us with the information requested below which may be submitted on the duplicate copy of this letter attached. Please complete the letter, sign and return it to this office as soon as possible.

Yours truly

W. C. BAILEY
Deputy Supervisor

By

J. R. Thomas
Associate Oil & Gas Engineer

1. Effective date you acquired the wells: January 1, 1961

2. Name and address of the person or company from whom you acquired the wells:
   Union Oil Company of California
   461 S. Boylston St., Los Angeles 17, California

3. What are your plans for the wells: Continue producing wells

4. Brief legal description of the property on which the wells are located:
   Portions of Secs. 13 and 14, T. 4 S., R. 13 W., S.B.B. & M. in Long Beach field shown on D.O.C. Map No. 20 as Union Oil Co. of Calif. "Oil Operators" lease
   1-11-61
   (Date)

   GENERAL EXPLORATION COMPANY
   OF CALIFORNIA

   By
   (Signature)
January 6, 1961

Wm. C. Bailey  
Deputy Supervisor  
Division of Oil and Gas  
830 North La Brea Avenue  
Inglewood 3, California  

Re: LONG BEACH AREA  
Los Angeles County, California  
Oil Operators, Inc. Lease  

Dear Mr. Bailey:  

Pursuant to Article 4, Chapter 1, Division 3 of the Public Resources Code, notice is hereby given that Union Oil Company of California has sold and transferred to General Exploration Co. of California, 750 Subway Terminal Building, Los Angeles 13, California, effective as of 7:00 o'clock a.m., January 1, 1961, the following oil and gas wells:

Section 13, Township 4 South, Range 13 West

Oil Operator #1 (Standing)  
Oil Operator #2  
Oil Operator #3  
Oil Operator #4  

Very truly yours,  

G. B. Hall  
Supervisor of Lease Processing  

By W. A. Watson  

WAW/jb  
cc: General Exploration Co. of California  
750 Subway Terminal Building  
Los Angeles 13, California  

Attention: Mr. C. G. Willis, President
STENOGRAPHER

Forms Filed 102
Date Rec'd. 10-3-44
Electric Log
Location
Elevation

ENGINEER

Form Needed
Map Correction

Form 150b (Date of Release)

At Request of Operator
Because Abandoned
Because Request by Oper.

Remarks

 subsequent area report
**DIVISION OF OIL AND GAS**

**Subsequent Work Report**

**Operator:** Union Oil Company of California  
**Field:** Long Beach

**Well No.:** Oil Operators #1  
**Sec.:** 13  
**T.:** 4 S  
**R.:** 13 W  
**S.E.:** B & M

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated **Sept. 8, 1939**

**Signed:** [Signature]

**Date:** September 27, 1944  
**Title:** Division Engineer  
(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Effective Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-26</td>
<td>4532</td>
<td>Liner 4529</td>
<td>Rigged up to plug and perforate higher.</td>
</tr>
<tr>
<td>9-1</td>
<td>4532</td>
<td>Plug 4443</td>
<td>Cleaned out sand from 4497 to 4529'. Dumped 15 sacks of Blue Diamond construction cement in stages to fill from 4529 to 4443'. Location of plug at 4443' witnessed by Division of Oil and Gas.</td>
</tr>
<tr>
<td>9-4</td>
<td>4532</td>
<td>Plug 4443</td>
<td>Bailed out 143 barrels of oil and 8 barrels of water to lower fluid level from 525' to 1105'. Note: Apparently the Securaloy or some other part of the liner was letting fluid through, as all of the perforations were plugged.</td>
</tr>
<tr>
<td>9-8</td>
<td>4532</td>
<td>Plug 4124</td>
<td>Set 6-5/8&quot; Cavins drillable bridge plug at 4200'. Dumped 8-1/2 sacks of Blue Diamond construction cement in stages to fill from 4200 to 4124'. Bailed out 194 barrels of water to lower fluid level from 830 to 1725'. Slight show of oil. Note: Securaloy liner must be defective since plug in 6-5/8&quot; is only 21' from shoe of 6-5/8&quot; and 6-5/8&quot; has not been perforated.</td>
</tr>
<tr>
<td>9-10</td>
<td>4532</td>
<td>Plug 4124</td>
<td>Ran rods and 3-1/2&quot; upset tubing to 2419' overall and put well to pumping.</td>
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<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
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<td>9-16</td>
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<td>Changed pump.</td>
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<td>9-20</td>
<td>610</td>
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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T. L-43185

Los Angeles 14, Calif. September 8, 1944.

Mr. W. S. Eggleston,
Agent for UNION OIL COMPANY OF CALIFORNIA

Los Angeles 14, Calif.

Dear Sir:

Operations at your well No. "Oil Operators" 1 Sec. 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, in the Los Angeles County, were witnessed by A. Pfeil, Inspector, representative of the supervisor, on Sept. 1, 1944. There was also present William Falconer, Driller, and Leo Murry, Helper.

Casing Record

13-3/8" cem. 757'; 8-5/8" cem. 1051', W.S. Bunk None.
6-5/8" h429' - h529', c.p. h475', perf. h479' - h529'; T.D. 4532', plugged with cement h529' - h443'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 4529' to 4443' in the process of plugging.

The inspector arrived at the well at 2:15 p.m. and Mr. Falconer reported:

1. The hole was cleaned out to 4529'.
2. On August 31, 1944, 10 sacks of cement was dumped at 4529'; and on September 1, 1944, an additional 5 sacks was dumped.

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4443' and brought up a sample of set cement.
The test was completed at 3:15 p.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4443' ARE APPROVED.

cc - Mr. E. E. Winter
- Long Beach

AP: my

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Messer Deputy
Mr. W. S. Eggleston
Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to plug & alter casing Well No. Oil Operators* 1 in Section 13, T. 4 S., R. 13 V., S.B. & M., Long Beach Field, Los Angeles County, dated July 15, 1944, received July 19, 1944, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:
"The present condition of the well is as follows:
1. Complete casing record.
   Total depth 4532'
   13-3/8" C 757'
   8-5/8" C 4105' O.K.
   505' 6-5/8" L 4529', inc. 50' perf. C.P. 4475' (Top 161 ft. of liner SecuraloY)
   Well is non-commercial.

2. June, 1944 Prod. 32 Net Oil 22.1 Gravity 99.3 (29 days)"

PROPOSAL:
"The proposed work is as follows:
1. Clean out to 4529' and plug with cement to 4455'.
2. Test plug by Division of Oil and Gas.
3. Make casing test and if O.K., perforate 4250-4270'.
4. If casing test is wet, cement 4-3/4" casing 4020-41300'.
5. Perforate 4250-4270 and test.
6. If wet, plug to 4230' and test plug by Division of Oil and Gas.
7. Perforate 4105 to 4120 and test."

DECISION:
THE PROPOSAL IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor
By S. H. Messner
Deputy

cc- F. A. W.
H. E. Winter
Long Beach

Blanket bond No. 99071
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Santa Fe Springs, Calif. July 15, 1944

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at well No. Oil Operators L

(Cross out unnecessary words)

Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.
Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 4,532'
   13-3/8" C 757'
   8-5/8" C 4,105' O.K.
   505' 6-5/8" L 4,529', inc. 50' perf. C.P. 4,475' (Top 161 ft. of liner Securaloy)

Well is non-commercial.

2. [Date] June, 1944 Prod. 62 22.1 99.3 (29 days)

The proposed work is as follows:

1. Clean out to 4,529' and plug with cement to 4,455'.
2. Test plug by Division of Oil and Gas.
3. Make casing test and if O.K., perforate 4,250-4,270'.
4. If casing test is wet, cement 4-3/4" casing 4,020-4,300'.
6. If wet, plug to 4,230' and test plug by Division of Oil and Gas.
7. Perforate 4,105 to 4,120 and test.

[Signature]
Name of Operator

[Signature]
Division Engineer

Address Notice to Division of Oil and Gas in District Where Well is Located
DISTRIBUTION OF OIL AND GAS

Subsequent Work Report

OPERATOR: Union Oil Co. of Calif. FIELD: Long Beach

Well No.: Oil Operators #1, Sec. 13, T. 4-S, R. 15-W, S.B. B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated 11-12-1937, was filed.

Signed: Henry E. White

Date: 9-8-39

Title: Division Engineer

(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, time, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

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<td>8-21-39</td>
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<td>226</td>
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<td>9-4-39</td>
<td>235</td>
<td>201</td>
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Rig up to pull liner and deepen.
Cut and pulled all of liner. Deepening.

Deepened to 4532. 505,15 - 6-5/8 landed 4529 (hung on Burns line hanger) inc 49.62 of 120 mesh (12-1-1/2-6) Kobe and cemented thru Baker whirler basket at 4475 with 125 sacks Victor Oil Well cement. Top 160.31 of liner is 6-5/8 Secureloy.

C.O. to 4150. Top of cement 3794.
Bailed fluid to 2810. Splice O K by Division of Oil and Gas.

C.O. to 4528. Bailing.

Ran 4433 - 3" tubing and rods. Rigged up pumping unit.

251 gross 184 Net 22.8 26.5% P 13 hr
254 " 248 " 22.0 2.5% P 24 hr
241 " 226 " 22.0 6.1% P 24 hr
235 " 201 " 22.0 14.3% P 24 hr
**LOG AND CORE RECORD OF OIL OR GAS WELL**

Operator: Union Oil Company of Calif.  
Field: Long Beach

Well No.: Oil Operators #1  
Sec.: 13  
T.: 4-S  
R.: 13-W  
S.B.: B. & M.

### FORMATIONS PENETRATED BY WELL

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"Henry Elliott"
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<th>DRILLER SIZE &amp; TYPE BARREL</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL REC.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
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<td>17</td>
<td>7-5/8&quot; Elliott</td>
<td>4520</td>
<td>4525</td>
<td>5.8</td>
<td>3.6</td>
<td>2.2</td>
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<td>5.8</td>
<td>Firm medium brown oil sand, grading to coarse pebbly brown oil sand</td>
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<td>18</td>
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<td>4525</td>
<td>4530</td>
<td>5.7</td>
<td>3.4</td>
<td>2.3</td>
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<td>5.7</td>
<td>Firm soft medium to coarse, slightly pebbly in spots, brown oil sand</td>
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<td>19</td>
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<td>4530</td>
<td>4532</td>
<td>2.9</td>
<td>2.9</td>
<td></td>
<td></td>
<td>2.9</td>
<td>Firm soft to soft coarse, slightly pebbly brown oil sand.</td>
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T.D. 4532 8-13-39
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Name of Operator
Union Oil Co of Calif.

Address
LOS ANGELES

Date
9/1/39

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T. B. & M., as herewith enumerated by well numbers.

R. D. BUSH, State Oil and Gas Supervisor

DEPUTY

No. 5731

DATE
9/1/39

LOGS

HISTORY

CORE RECORD

SUBSEQUENT WORK

Oil Log - Oil Operators 1 - 8/13/30

By

CALIFORNIA STATE PRINTING OFFICE

FORM 127, 65037 1-39 2500 TRIP
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-36446

Los Angeles, Calif. August 29, 1939

Mr. W. S. Eggleston,

Los Angeles,

Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 1 Sec. 13, T. 4S., R. 13W., S. E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, Engineer, representative of the supervisor, on August 21, 1939. There was also present H. E. Winter, Engineer, and H. G. Richardson, Foreman.

Casing Record

13-3/8" oem., 757\*; 8-5/8" oem., 41051,


44791-45291. T. D. 45321, plugged with cement

44751-

The operations were performed for the purpose of demonstrating that fluid does not have access to the well between the 6-5/8" and 8-5/8" casings,

and the data and conclusions are as follows:

ENGINEER PEIRCE ARRIVED AT THE WELL AT 11:45 P. M. AND MR. WINTER REPORTED THE FOLLOWING:

1. The 6-5/8" liner landed at 41551 was all recovered.
2. An 8 1/2" rotary hole was drilled from 41051 to 45321.
3. Mud fluid was circulated 4 hr. before cementing the casing.
4. Electrical core readings showed the following: 44401 - 44801 - shale (J-K).
5. On August 17, 1939, 505' of 6-5/8" casing (top 161' Securaloy, bottom 34141 - 26 lb.), including 50' of perforated, was landed at 45291 and was cemented through perforations at 44751 with 125 sacks of Victor cement.
6. Cement was drilled out of the 8-5/8" and 6-5/8" casings from 37941 to 40351, equivalent to 68 sacks, and the casing was cleaned out to 41501.
7. The fluid was bailed to 23001 at 4:45 p.m., on August 21, 1939.

ENGINEER PEIRCE NOTED THE FOLLOWING:

1. The fluid rose 10' in 7 1/2 hr., equivalent to 1 bbl. per 24 hr.
2. The hole was open to 42001.

The test was completed at 12:30 a.m.

The operations as witnessed and reported are approved as indicating that fluid does not have access to the well between the 6-5/8" and 8-5/8" casings.

cc: H. E. Winter

Long Beach

GP: G

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy
Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 1, Section 13, T. 1/2 S., R.13 W., S.E. B. & M., Long Beach Field, Los Angeles County, dated July 24, 1939, received July 26, 1939, has been examined in conjunction with records filed in this office. Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:
"The present condition of the well is as follows:
4,155' deep
13-3/8" C 757'
8-5/8" C 4,105' O.K.
68' 6-5/8" L 4,155', inc. 47' perf.
June, 1939 production 1034 oil, 16,287 water - 30 days."

PROPOSAL:
"The proposed work is as follows:
1. Pull 6-5/8" liner.
2. Deepen to approximately 4,535'.
3. Land 6-5/8" liner, including 110' perforated, at 4,535' and cement through perforations at approximately 4,425'."

DECISION:
The proposal is approved provided that this Division shall be notified to witness a test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 6-5/8" and 8-5/8" casings.

cc: H. E. Winter
Long Beach
WJC:OH

R. D. BUSH
State Oil and Gas Supervisor
By signatures
Deputy
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Santa Fe Springs Calif. July 24 1939

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing in well No. Oil Operators #1

(Cross out unnecessary words)

13

Sec. 13, T. 4 S, R. 13 W, S & E, B. & M.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

4155' deep

13-3/8' C 757'
8-5/8' C 4105' 0.8'
68' 6-5/8' L 4155', inc. 47' perf.

June, 1939 production 1034 oil, 16,287 water - 30 days

The proposed work is as follows:

1. Pull 6-5/8' liner.

2. Deepen to approximately 4535'.

3. Land 6-5/8' liner, including 110' perforated, at 4535' and cement through perforations at approximately 4425'.

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By

Division Engineer

Address Notice to DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES 
DIVISION OF OIL AND GAS 
LOS ANGELES 

No. 25-53 

Name of Operator: Union Oil Co. 

Address: Los Angeles 

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 4 S. R. 13 W. Los Angeles R. 5 M., as herewith enumerated by well numbers. 

Logs: 

History: 

Core record: 

Subsequent work: 

R. D. BUSH, State Oil and Gas Supervisor 

DUPLICATE 

FORM 127. 4990 7-37 2M 

By: _____________________ 

CALIFORNIA STATE PRINTING OFFICE
It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plug started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bulling.
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No.: OIL OPERATORS NO. 1, Sec. 18, T. 4S, R. 12W, 5B B. & M.

Signed: [Signature]

Date: NOVEMBER 12, 1937

Title: DISTRICT ENGINEER

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

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<tr>
<th>Date</th>
<th>Gross</th>
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<th>Gravity</th>
<th>Out</th>
<th>Hrs.</th>
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**DIVISION OF OIL AND GAS**

**LOG OF OIL OR GAS WELL**

Operator: UNION OIL COMPANY OF CALIFORNIA  
Field: LONG BEACH

Well No.: OIL OPERATORS #1  
Sec.: 13  
T.: 45  
R.: 13W  
SB: B. & M.

Location: 555 S'ly along the prolongation of the center line of the W'y portion of San Antonio Drive, from the center line of Del Mar Ave. thence 110' N'ly at right angles.  
Elevation: 36.84

In compliance with the provisions of Chapter 718, Statutes of 1915, as amended, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date: NOVEMBER 12, 1937  
Signed: H. E. White

Title: DISTRICT ENGINEER

(Engineer or Geologist)  
(Superintendent)  
(President, Secretary or Agent)

Commenced drilling: SEPTEMBER 30, 1937  
Completed drilling: OCTOBER 25, 1937  
Drilling tools: Rotary

**GEOLOGICAL MARKERS**

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**Drilling Lift/pumping**

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**Initial production**

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<th>Per Cent Water including emulsion</th>
<th>Gas Mcf. per day</th>
<th>Tubing Pressure</th>
<th>Casing Pressure</th>
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**Production after 30 days**

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**Casing Record (Present Hole)**

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<th>Top of Casing</th>
<th>Weight of Casing</th>
<th>New or Second Hand</th>
<th>Seamless or Lapweld</th>
<th>Grade of Casing</th>
<th>Size of Hole Casing Landed in</th>
<th>Number of Sacks of Cement</th>
<th>Depth of Cementing if through perforations</th>
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**Perforations**

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**Electrical Log Depths**  
Schlumberger from 757 - 4043 (Attach Copy of Log)
# FORMATIONS PENETRATED BY WELL

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<th>Depth to Formation (Top of)</th>
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<th>Thickness</th>
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<th>Recovery</th>
<th>Description</th>
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Drilled.
Firm soft medium to coarse gray sand. No odor.
Hard brown shale.
Firm fine compact gray sand, grading to medium in lower part.
Hard brown shale, streaks of fine gray sand.
Hard brown shale.
Hard brown shale, streaks of fine gray sand. Good dips of 31°-33°.
Firm soft medium to coarse gray sand.
Streak of brown shale at top.
Firm soft medium gray sand.
Broken brown shale, inclusions of medium gray sand.
Firm soft medium gray sand, grading to very fine on bottom.
Hard brown shale, streaks of fine gray sand. Poor dip of 20°.
Very fine firm gray sand.
Hard brown shale.
Firm soft fine gray sand.
Hard brown shale.
Firm soft medium gray sand.
Hard coarse calcareous sandstone shell. Vertical fracture.
Drilled.
Firm soft medium gray sand. No odor.
Hard brown silty shale, streaks and partings of fine gray sand. Dip of 28°.
Firm soft medium gray sand.
Hard brown shale.
Firm soft medium gray sand.
Firm soft medium to coarse gray sand.
Hard brown silty shale. Partings have dip of 23° to 28°. Streak of gray sand.
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<th>Shale O.S.</th>
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<th>Shell</th>
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**Notes:**
- Hard dark brown shale
- Firm soft medium gray sand
- Hard sandy brown shale
- Firm soft fine to medium gray sand
- Hard dark brown shale. Streak of gray sand 0.7 from top
- Firm soft medium to coarse gray sand
- Hard sandy dark brown shale
- Firm soft medium gray sand
- Hard brownish black shale
- Firm soft medium argillaceous dark brown gray sand. Slightly oil stained with fair odor
- Hard brownish black slightly sandy shale. Laminated with partings of gray sand 0.8 from bottom. Streak of brown oil sand on bottom. Dip of 22°
- Firm, soft fine to medium dark brown oil sand. Strong odor and dark amber cut.
- Hard, brownish black shale.
- Firm, soft, fine to medium dark brown oil sand.
- Hard brownish black shale.
- Firm, fine to medium dark brown oil sand.
- Hard, brown shale.
- Fine to medium dark brown oil sand.
- Hard, brownish, black shale.
- Hard, coarse, slightly calcareous grey sand.
- Hard, brownish, black shale.
- Firm, soft, fine dark grey sand. No odor and no cut.
- Hard, black to brownish shale.
- Firm, soft, fine dark brown oil sand.
- Streaks of mud.
- Hard brownish black shale. Firm soft fine to medium dark brown oil sand. Strong odor.
- Hard, brownish black massive shale.
- Firm, fine to medium dark brown oil sand. Strong odor and dark amber cut. Good flash.
- Hard, brownish black shale, partings of fine, brown oil sand.
- Firm, soft, fine to medium dark brown oil sand - strong odor.
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<tr>
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<td>0.1</td>
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<td></td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Soft, loose, fine dark brown oil sand. Good odor and dark amber cut. Core has strong flash test. Hard, grayish brown slightly calcareous bentonitic shale. This shale differs from the others and may be a marker.**

**Soft, loose, fine dark brown oil sand. Hard, brownish black shale. Firm, soft, fine to medium dark brown oil sand. Strong odor with strong flash. Streak of shale 0.4 from bottom.**


**Firm, soft, fine to medium dark brown oil sand. Hard, slightly calcareous shale shell. Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Hard, slightly calcareous shale shell. Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Sand looks good. 0.1 of brown shale 0.3 from bottom.**
629 South Hill Street
Los Angeles, California
November 11, 1937.

Union Oil Company of California,
Union Oil Building,
Los Angeles, Calif.

Gentlemen: Attention Mr. W. S. Eggleston

In accordance with recent conversation between your office and Engineer Crown of this office, we are correcting your notice of intention to drill, dated August 9, 1937, and the following reports issued by this office, to show the correct designation of the well as "Oil Operators" 1 (instead of "Oil Operators, Inc." 1), Sec. 13, T. 4 S., R. 13 W., S. B. E. & M., Long Beach field:

Nos. P 1-31200; T 1-33187; T 1-33264, and T 1-33300.

Please correct your copies accordingly.

Yours truly,

Deputy Supervisor.

[Signature]

CC - Mr. R. D. Bush (2)
Long Beach
Report on Test of Water Shut-off

No. T 1-33300

Los Angeles, Calif. November 5, 1937

Mr. Ed. Jussen, Jr.,

__________________________
Los Angeles, Calif.

Dear Sir:

Your well No. "OIL OPERATORS, INC." T. 4 S., R. 13 W., S. B. B. & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on October 20, 1937, Mr. E. R. Murray-Aaron, designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present J. B. Kewish, Drilling Foreman, and S. Hagastad and R. Hampton, Engineers.

Location of water tested above 4105' and normal fluid level not reported.

Depth and manner of water shut-off: 4105 ft. of 8-5/8 in. casing cemented in shale at 4105 ft. with 400 sacks Victor cement by casing method.

Water string was landed in 12½" rotary hole.

Casing record of well 13-3/8 cem. 757½; 8-5/8" as above.

Reported total depth of hole 4110 ft. Hole bridged from XX ft. to XX ft. Hole cleaned out to 4110 ft. for this test.

At time of test depth of hole measured XX ft. and bailer brought up sample of XXXX.

At XX ft. oil bailed to XX ft., drilling fluid swabbed to XX ft.

At XX ft. top of oil found at XXXX ft., top of fluid found at XXXX ft.

MR. HAGASTAD REPORTED THE FOLLOWING:

1. No casing test was made.
2. 21½ of set cement was drilled out of the 8-5/8" casing (equivalent to 6 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 406½'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The tester valve was opened at 10:43 a.m. and remained open for 30 minutes. During this interval there was a strong, steady blow for the entire test period; gas reached the surface in 3 minutes.
2. The fluid between the drill pipe and the 8-5/8" casing remained stationary during the time that the valve was open.
3. When the drill pipe was removed 90½ ft of oily, gassy mud fluid and 1910½ ft of oil was found in the drill pipe above the tester, equivalent to 1.3 and 27.4 bbl. respectively.
4. The pressure bomb chart showed that the tester valve was open for 30 minutes.

The test was completed at 1:30 p. m.
THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T. 1-33264

Los Angeles, Calif. October 29, 1937

Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

"OIL OPERATORS, INC."

Operations at your well No. 1 Sec. 13, T. 49 S., R. 13 W., S. E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, representative of the supervisor, on Oct. 15, 1937. There was also present H. E. Winter, Engineer, and E. W. Messer, Driller.

Casing Record

13-3/8" cas. 757'. T. D. 4110'. Junk None.

The operations were performed for the purpose of demonstrating that the formations between 757' and 4106' were mudded until the loss was not more than 5 bbl. per hr., and the data and conclusions are as follows:

MR. WINTER REPORTED THE FOLLOWING:

1. A 12½" rotary hole was drilled from 757' to 4106' and a 7-5/8" rotary hole was drilled from 4106' to 4110'.
2. Mud fluid was circulated for 2 hr. prior to the test.
3. No record was kept of the loss of mud fluid prior to the test.
4. The drill pipe was hanging at 4070' during the test.
5. Cores were taken from the following important depths:
   - 4010' - 4040'  -- gray sand
   - 4040' - 4041'  -- shell
   - 4058' - 4071'  -- gray sand
   - 4071' - 4079'  -- shale
   - 4079' - 4092'  -- gray sand
   - 4092' - 4106'  -- shale
   - 4106' - 4110'  -- oil sand

THE ENGINEER NOTED THAT during a circulation test from 10:30 a.m. to 11:00 a.m. mud fluid was lost from the pit at the rate of 3 bbl. per hr. THE MUDDING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

Oral approval given to cement 8-5/8" casing at 4106' is hereby confirmed.

cc- H. E. Winter
Long Beach
G.E.G.

R. D. BUSH
State Oil and Gas Supervisor

By: [Signature] Deputy
629 South Hill Street
Los Angeles, California
October 3, 1937.

Union Oil Company of California,
Santa Fe Springs, Calif.

Gentlemen:

Attention Mr. H. E. Winter.

This will acknowledge receipt of and thank you for your letter of October 7, 1937, giving the elevation of your well No. "Oil Operators, Amer" 1, Sec. 13, T. 4 S., R. 15 W., S. B. B. & M., Long Beach field, as 56.54 feet, U. S. G. S.

Our records have been corrected accordingly.

Yours truly,

Deputy Supervisor.

B:EMS

CC - Mr. B. D. Bush (2)
Long Beach
Union Oil Company of California

PRODUCERS AND REFINERS OF
CRUDE OIL, FUEL OIL, ROAD OIL AND ASPHALT,
UNION GASOLINE, KEROSENE AND DISTILLATE,
'RED LINE' LUBRICATING OILS AND GREASES.

Santa Fe Springs, Calif. Oct. 7, 1937

Mr. E. Huguenin,
Depty Supervisor,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil
Company well "Oil Operators, Inc. #1" in the
Long Beach Field (Sec. 13-4S-13W), is 56.84 ft.,
U.S.G.S.

Our records have been corrected
accordingly.

Very truly yours,

Henry E. Winter

District Engineer.
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. TI-33187

Los Angeles, Calif. October 22, 1937

Mr. Ed Jussen, Jr.,
Los Angeles, Calif.

Agent for
UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. 1, Sec. 13, T. 4S., R. 13W. S. B. & M.
Long Beach, Los Angeles County, were witnessed by

G. Peirce

on Oct. 3, 1937. There was also present

R. Hampton, Engineer,

and G. Bussett, Driller.

Casing Record: 13-3/8" cas. 757'. T. D. 757'.

Junk __

The operations were performed for the purpose of demonstrating that the known surface waters are adequately protected.

and the data and conclusions are as follows:

THE ENGINEER ARRIVED AT THE WELL AT 3:30 P. M. AND MR. HAMPTON REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 757'.
2. 763' of 13-3/8" - 45.97 lb. casing was run into the hole to 757'.

THE ENGINEER NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 757' with 350 sacks of Velocement.
2. The cement was displaced with 662 cubic feet of drilling fluid under a final pressure of 100 lb.
The test was completed at 4:30 p. m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT the known surface waters are adequately protected.

cc- H. E. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By ________________________ Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31200

Los Angeles, Calif. August 16, 1937

Mr. Ed Jussaum, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS, INC." 1

Section 13, T. 18S., R. 18W., S. B. & M., Long Beach, Los Angeles County, dated Aug. 9, 1937, received Aug. 11, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:
"The well is 555' S-W'ly along the prolongation of the center line of the W'ly portion of San Antonio Drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles. The elevation of the derrick floor above sea level will be determined later (Approx. 60'). We estimate that the first productive oil or gas sand should be encountered at a depth of about feet, more or less."

PROPOSAL:
"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>Weight</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-5/8&quot;</td>
<td>46</td>
<td>New</td>
<td>700</td>
<td>Commd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4100</td>
<td>Commd.</td>
</tr>
<tr>
<td>6-5/8&quot; Perf liner</td>
<td>26</td>
<td>New</td>
<td>4150</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT:
1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the well and the column of mud fluid shall be maintained at all times to the surface, particularly while pulling the drill pipe.
(b) Adequate blow-out prevention equipment shall be provided and ready for operation at all times.
2. Any hole to be sidetracked at any time during the drilling of this well shall be completely filled with cement.
3. The formations to be left back of the 8-5/8" casing shall be mudded by open circulation until the loss is not more than 5 bbl. per hr.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   (a) The cementing of the 13-5/8" surface casing.
   (b) Final mudding operations before cementing the 8-5/8" casing.
   (c) A test of the effectiveness of the 8-5/8" shut-off.

cc: H. E. Winter
Long Beach
WJC:G

R. D. BUSH
State Oil and Gas Supervisor

By
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

Notice of Intention to Drill New Well  
This notice must be given before drilling begins

**General Exploration Co.**  
**SANTA FE SPRINGS**  
**Cal.**  
**AUGUST 9, 1937**  

**E. HUGUENIN**  
Deputy State Oil and Gas Supervisor  
**Los Angeles, Calif.**  
**Cal.**

**Dear Sir:**

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. **Oil Operators, Inc. #1**, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M. Long Beach Oil Field Los Angeles County.

Lease consists of 5661 S-W'ly along the prolongation of the center line of the W'ly portion of the well is feet N. or S., and feet E. or W. from San Antonio. Drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles will be determined later (Approx. 60').

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing, Inches</th>
<th>Weight, Lb. Per Foot</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot;</td>
<td>46</td>
<td>New</td>
<td>700</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4100</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>6-5/8&quot; Perf. Liner</td>
<td>26</td>
<td>New</td>
<td>4150</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

We estimate that the first productive oil or gas sand should be encountered at a depth of about feet, more or less.

Respectfully yours

**Address:** Santa Fe Springs, Calif.  
**Union Oil Company of California**  
(Name of Company or Operator)

By **Henry E. Winter**  
District Engineer.

**Address Notice to Deputy State Oil and Gas Supervisor in Charge of District Where Well is Located**

[Handwritten note: Will copy book CFB]
SCHLUMBERGER ELECTRICALLogs

COMPANY: HIGH C. Co. DATE: 12/2/37

FIELD: Long Beach LOCATION:

WELL: C-13 SPURRERS 52 ELEVATION: ft

Casing shoe depth: Driller 750 ft. Started run 10:00 A.M.

Sclumberger 750 ft. Finished run 12:45 A.M.

Bottom Depth: Driller 3855 ft. Time well occupied by outfit 2 1/2 hr.

Max. depth reached by lower elect 5857 ft. Time waiting at well none hr.

Max. footage measured (por S.P.) 7079 ft. Mileage incurred by run 15 M.

Footage missed 23 ft. Total time incurred by run 2 3/4 hr.

MUD CHARACTERISTICS

NATURE: Natural VISCOSITY:
DENSITY: 75 RESISTIVITY: "

DIAMETER OF HOLE

12.5".

REMARKS

Max. dept. 58 1/4"

8-2

Witnessed By [illegible]

Observers: [illegible]

HEIGHT RESISTIVITY LOG ohms/miln POROSITY LOG millivolts

0 18 30 150"
## Oil Operators #2

### Casing shoe depth:
- Driller: 4016 ft. Started run 9:00 a.m.
- Schlumberger: ft. Finished run 11:00 a.m.

### Bottom Depth:
- Driller: 4105 ft. Time well occupied by outfit 2 h.
- Max. depth reached by lower elect: 4104 ft. Time waiting at well -- h.
- Max. footage measured (p or S.P.): 72 ft. Mileage incurred by run 10 M.
- Footage missed: 1 ft. Total time incurred by run 3 h.

### MUD CHARACTERISTICS

<table>
<thead>
<tr>
<th>NATURE</th>
<th>VISCOSITY</th>
<th>DENSITY</th>
<th>RESISTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>natural</td>
<td>no sample</td>
<td>72</td>
<td>no sample</td>
</tr>
</tbody>
</table>

### DIAMETER OF HOLE
7-5/8"

### REMARKS
- Device: 20"

### SCHRUMBERGER ELECTRICAL LOGS

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>UNION OIL CO.</th>
<th>DATE</th>
<th>12/4/37</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD</td>
<td>W. Long Beach</td>
<td>LOCATION</td>
<td></td>
</tr>
<tr>
<td>WELL</td>
<td>Oil Operators #2</td>
<td>ELEVATION</td>
<td>ft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing shoe depth:</th>
</tr>
</thead>
</table>
- Driller: 759 ft. Started run 4:15 p.m.
- Schlumberger: ft. Finished run 5:45 p.m.

<table>
<thead>
<tr>
<th>Bottom Depth:</th>
</tr>
</thead>
</table>
- Driller: 4034 ft. Time well occupied by outfit 1 1/2 h.
- Max. depth reached by lower elect: 4032 ft. Time waiting at well none h.
- Max. footage measured (p or S.P.): 173 ft. Mileage incurred by run 15 M.
- Footage missed: 2 ft. Total time incurred by run 3 h.

### MUD CHARACTERISTICS

<table>
<thead>
<tr>
<th>NATURE</th>
<th>VISCOSITY</th>
<th>DENSITY</th>
<th>RESISTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>24</td>
<td>75</td>
<td>3.4</td>
</tr>
</tbody>
</table>

### DIAMETER OF HOLE

-
SCHLUMBERGER ELECTRICAL LOGS

COMPANY: UNION OIL CO. DATE: 12/2/37
FIELD: Long Beach LOCATION:
WELL: Oil Operators #2 ELEVATION:

Casing shoe depth:
- Driller 750 ft. Started run
- Schlumberger ft. Finished run

Bottom Depth:
- Driller 3865 ft. Time well occupied by outfit 23:45 h.
- Max. depth reached by lower elect 3857 ft. Time waiting at well none h.
- Max. footage measured (p or S.P.) 3068 ft. Mileage incurred by run 15 M.
- Footage missed 2 ft. Total time incurred by run 32 h.

MUD CHARACTERISTICS

NATURE: Natural VISCOSITY: LEVEL:
DENSITY: 75 RESISTIVITY: 3.8

DIAMETER OF HOLE

12.5"

REMARKS

Device: 20"

Witnessed By: Mr. Winter

OBSERVERS: F. PEOCOUSNYK

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG (ohms. m²m)</th>
<th>POROSITY LOG (millivolts)</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>RUN</td>
<td>1-D</td>
<td>2-D</td>
</tr>
<tr>
<td>-----</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Date</td>
<td>10-27-41</td>
<td>10-29-41</td>
</tr>
<tr>
<td>Csg. shoe</td>
<td>4016'</td>
<td>4016'</td>
</tr>
<tr>
<td>Total depth</td>
<td>6835'</td>
<td>6480'</td>
</tr>
<tr>
<td>Depth rchd.</td>
<td>6255'</td>
<td>6277'</td>
</tr>
<tr>
<td>Ft. Meas.</td>
<td>1129'</td>
<td>242'</td>
</tr>
<tr>
<td>Mud Nat.</td>
<td>Natural</td>
<td>Chemical</td>
</tr>
<tr>
<td>Dens</td>
<td>70#</td>
<td>70#</td>
</tr>
<tr>
<td>Visc</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Res</td>
<td>6.3 @ 82°F</td>
<td>5.5 @ 87°F</td>
</tr>
<tr>
<td>Max. Temp.</td>
<td>160°F</td>
<td>175°F</td>
</tr>
<tr>
<td>Meas. from</td>
<td>2000'</td>
<td>1800'</td>
</tr>
<tr>
<td>Tension</td>
<td>2 hrs.</td>
<td>1 hr.</td>
</tr>
<tr>
<td>Rig. Time</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Mileage</td>
<td>V. Fant</td>
<td>W. Dale</td>
</tr>
</tbody>
</table>

Witnessed by: Mr. Winter

Diameter of Hole
7-5/8"

Remarks
Standard Device 3rd Curve: ..........................
Long Device 3rd Curve: ..........................

Resistivity

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>NORMAL CURVE</th>
<th>THIRD CURVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Self-Potential

<table>
<thead>
<tr>
<th>DEPT</th>
<th>100 millivolts</th>
</tr>
</thead>
</table>
10-23-41
UNION OIL COMPANY
Long Beach
Oil Operators #2
# REPORT OF PROPERTY AND WELL TRANSFER

**Field or county**  
Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.

<table>
<thead>
<tr>
<th>Former owner</th>
<th>Operator code</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific Energy Resources</td>
<td>P0250</td>
<td>7/10/2007</td>
</tr>
</tbody>
</table>

**Name and location of well(s)**  
See Attachment

Description of the land upon which the well(s) is (are) located  
See Attachment

**Date of transfer, sale, assignment, conveyance, or exchange**  
06/14/2007

<table>
<thead>
<tr>
<th>New owner</th>
<th>Operator code</th>
<th>Type of organization</th>
<th>Telephone No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific Energy Resources Ltd.</td>
<td>P0250</td>
<td>Partnership</td>
<td>(562) 628-1526</td>
</tr>
</tbody>
</table>

**Address**  
111 West Ocean Blvd  
Long Beach, CA 90802

Reported by  
OG39A Both Signed

Confirmed by

<table>
<thead>
<tr>
<th>Request designation of agent</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darren Katic, Agent</td>
<td>See Operator File</td>
</tr>
</tbody>
</table>

**New operator new status**  
PA

**Old operator new status**  
NPI

**OPERATOR STATUS ABBREVIATIONS**

| PA | Producing Active |
| NPA | No Potential, Active |
| PI | Potential Inactive |
| NPI | No Potential, Inactive |
| Ab | Abandoned or No More Wells |

**FORM AND RECORD CHECK LIST**

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form OGD121</td>
<td></td>
<td></td>
<td>Map and book</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Form OGD140</td>
<td></td>
<td></td>
<td>Notice to be cancelled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New well cards</td>
<td></td>
<td></td>
<td>Bond status</td>
<td><strong>7/11/07</strong></td>
<td></td>
</tr>
<tr>
<td>Well records</td>
<td></td>
<td></td>
<td>EDP files</td>
<td></td>
<td></td>
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<tr>
<td>Electric logs</td>
<td></td>
<td></td>
<td>Computer Files</td>
<td><strong>7/11/07</strong></td>
<td></td>
</tr>
<tr>
<td>Production reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OGD156 (5/98)
REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California
November 27, 1996

Steve Graner, President
NORTH SIDE OIL CORPORATION
P. O. Box 16007
LONG BEACH CA 90807

Your report of the plugging and abandonment of well Pacific Energy Resources/NWLBU 8-2, A.P.I. No. 037-09793, Section 13, T. 4S, R. 13W, S.B. B.& M., Long Beach Field, Los Angeles County, dated November 1996, received November 22, 1996, has been examined in conjunction with operations witnessed and records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

NOTES:
1. Surface plugging completed on 10-21-96.
2. Surface inspection made and approved 11-26-96.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By
For R. K. Baker, Deputy Supervisor

NO BOND REQUIRED

cc: Update
L.A. County Assessor
L.A. County Fire Prevention Bureau
Gary Jones, City of Signal Hill
Pacific Energy Resources
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: Pacific Energy Resource
Well No.: 8-3
API No.: 037-09123
Sec.: 13
T.: 43
R.: 1310
B. & M.: S6
County: Bakersfield
Field: Wilmington

RECORDS RECEIVED
Well Summary (Form OG100)_________ DATE 11-27-96
History (Form OG103)________________________
Core Record (Form OG101)________________________
Directional Survey________________________
Sidewall Samples________________________
Other________________________
Date final records received________________________
Electric Logs:________________________

STATUS
Producing - Oil________________________
Idle - Oil________________________
Abandoned - Oil________________________
Drilling - Idle________________________
Abandoned - Dry Hole________________________
Producing - Gas________________________
Idle - Gas________________________
Abandoned - Gas________________________
Gas - Open to Oil Zone________________________
Gas Storage________________________
DATE 10-21-96
RECOMPLETED ____________________________
REMARKS ____________________________

ENGINEERS CHECK LIST
1. Summary, History, & Core Record (dupl.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Directional Survey
13. Production
14. E Well on Prod., enter EDP
15. Surface Inspection

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGD150b (Release of Bond)
5. Duplicate logs to archives
6. Notice of Records Due (F-OGD170)
7. EDP (F-OGD42A-1,2)
8. District Data Base
9. Update Center
10. Form OG159 (Final Letter) 11-27-96

RECORDS NOT APPROVED
Reason: ____________________________
________________________
________________________
________________________
________________________
________________________
________________________
________________________
________________________

RECORDS APPROVED ____________________________
RELEASE BOND ____________________________
Date Eligible ____________________________
(Use date last needed records were received.)
MAP AND MAP BOOK ____________________________

OGD2 (5/96)
History of Oil or Gas Well

Operator: NORTH SIDE Oil CORP.
Field: Wilmington
Well: NWLBU 8-2
County: Los Angeles
A.P.I. No.: 037-09793
Date: November 1996

Steve Graner, President
(Person submitting report)

P O Box 16007, Long Beach, CA 90806
(310/424-2451)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailin tests and initial production data.

10/7  MIRU. RIH with 1-1/2" C.T. Tagged top of lines at 3948'. Tagged fill at 4071'. Bottom of lines at 5065'. POOH. Secured well. MO.

10/14 MIRU. Filled well with water. Pressured casing to 500psi and held for 10 minutes. RIH with 1-1/2" C.T. to 3946'. Unable to go deeper. POOH. Secured well.

10/15 MIRU. RIH with 1-1/2" C.T. to 3946'. Spotted 5 barrels water followed by 181 cf of cement. Estimated TOC at 3417'. POOH. Filled hole with water. Pressured up casing to 500psi and held for 5 minutes. Squeezed 8-1/2 cf away. Estimate TOC at 3442'.

10/16 MIRU. RIH with 1-1/2" C.T. Tagged TOC at 3400'. Muddled hole with 72% mud from 3400' to 2575'. POOH. Rigged up Primo wireline and shot cavity shot at 2575'. RIH with 1-1/2" C.T. to 2575'. Spotted 5 barrels water followed by 152 cf of cement. Estimate top at 2132'. POOH. Filled hole with water. Downsqueezed 11 cf with 550psi and held for 5 minutes. Estimate TOC at 2164'.

10/17 MIRU. RIH with 1-1/2" CT and tagged TOC at 2177'. Muddled hole with 133 barrels of 72% mud from 2177' to surface. POOH. Secured well.

10/19 MIRU. Cut 8-5/8" casing at 70'. MO. MIRU. RIH with 1-1/2" C.T. to 70'. Spotted 5 barrels water followed by 242 cf of cement. Cement to surface. POOH. Cement top fell. Cement with 97 cf of cement to surface.

10/21 Welded steel plate on casing. Well abandoned.
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

No. T 196-750

REPORT ON OPERATIONS

Long Beach, California
November 22, 1996

Steve Graner, President
NORTH SIDE OIL CORPORATION
P. O. Box 16007
LONG BEACH CA 90807

Your operations at well Pacific Energy Resources/NWLB 8-2, A.P.I. No. 037-09793, Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County, were witnessed on 10-21-96. Bill Fedasko, representative of the supervisor, was present from 1530 to 1600. There was also present Steve Graner, President.

Present condition of well: 13 3/8" cem 759'; 8 5/8" cem 4016' WSO, cav shot 2575', pulled fr 70'; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf 4018'-4055', 4118'-4228', 4640'-4700', @ int 4835'-4945', 5165'-5245', & 5345'-5395', collapsed 3980'±. TD 5480'. Plugged w/cem 5475'-5456', 5415'-5065', 3946'-3400', 2575'-2177', 70'-5'.

The operations were performed for the purpose of witnessing the plugging operations in the process of abandonment.

DECISION: APPROVED.

NOTE: The required Class II2M blowout prevention equipment was inspected and approved on 10-14-96.

DEFICIENCIES: None.

CONTRACTOR: Fleet Cementers, Inc.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By T.C. Manuel
For R. K. Baker, Deputy Supervisor
Cementing/Plugging Memo

Operator: Pacific Energy Resources  
Well No.: NWLBW 8-2  
API No.: 089-97993  
Sec.: 13  
T.: 4S  
R.: 15W  
S: 5  
Field: Long Beach  
County: Los Angeles  
Wish: 1065  
Date: 11-15  
Time: 11:46 AM  
Date & Time: 10/14/96  
Name:  
Title:  
Sign Date: 11/15/96  
Rev.:  
Page:  
Scale:  

There were present  
Mr./Ms.  
Hale  
Jobs  
Praiser  

The casing record of well:
- 13 3/4" cas. 757'  
- 12 5/8" cas. 4015'  
- 11 3/4" cas. 5400'  
- 10 5/8" cas. 5475'  
- 8" cas. 5456'  
- 4 5/8" cas. 6 3400'  
- 4 1/2" cas. 1777'  

The operations were performed for the purpose of:
- Pull out  
- Collapsed  

☐ The plugging/cementing operations as witnessed and reported are approved.  
☐ The location and hardness of the cement plug at are approved.  

Hole Size:  
Fr.  to  
Fr.  to  

<table>
<thead>
<tr>
<th>Casing</th>
<th>Weight</th>
<th>Top</th>
<th>Bottom</th>
<th>Date</th>
<th>MO-Depth</th>
<th>Volume</th>
<th>Annulus</th>
<th>Casing</th>
<th>Squeezed Away</th>
<th>Final Press.</th>
<th>Perfs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 7/8&quot;</td>
<td>32</td>
<td>0</td>
<td>4016'</td>
<td>10/16/96</td>
<td>114 23'</td>
<td>181'</td>
<td>702 1/2'</td>
<td>80' 5/8&quot;</td>
<td>0 8.5</td>
<td>500 40'</td>
<td>4975'</td>
</tr>
<tr>
<td>5 7/8&quot;</td>
<td>19</td>
<td>3950'</td>
<td>10/16/96</td>
<td>140 7/8'</td>
<td>162 28'</td>
<td>152'</td>
<td>711 4/16'</td>
<td>5' 25'</td>
<td>550 25'</td>
<td>25' 5'</td>
<td></td>
</tr>
</tbody>
</table>

Casing/tubing recovered:
- 6 5/8" shot/cut at 70'; pulled fr. 2525'.
- 5 3/4" shot/cut at 3422'; pulled fr. 2525'.

Junk (in hole):

Hole fluid (balled to) at 516'. Witnessed by  

<table>
<thead>
<tr>
<th>Mud</th>
<th>Date</th>
<th>Bbls.</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>10/16/96</td>
<td>51</td>
<td>5'g 3'00'</td>
<td>2575'</td>
<td>Hebein</td>
<td></td>
</tr>
<tr>
<td>7'sephy</td>
<td>10/17</td>
<td>133</td>
<td>182</td>
<td>12</td>
<td>R. Navas</td>
<td></td>
</tr>
</tbody>
</table>

Cement plugs:

<table>
<thead>
<tr>
<th>Date</th>
<th>Sx./cf</th>
<th>MO &amp; Depth</th>
<th>Time</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/16/96</td>
<td>181'c3</td>
<td>5'g 3'00'</td>
<td>1980'</td>
<td>10/16/96</td>
<td>1430'</td>
</tr>
<tr>
<td>10/16/96</td>
<td>181'c3</td>
<td>5'g 3'00'</td>
<td>1930'</td>
<td>R. Navas</td>
<td>2177'</td>
</tr>
<tr>
<td>10/19/96</td>
<td>239'c7</td>
<td>170'</td>
<td>12</td>
<td>R. Navas</td>
<td>5'</td>
</tr>
</tbody>
</table>

OGD10 (12/94/GR1/5M) Printed on recycled paper  
Coiled tubing only into 3946'  
OIL TO 3946 (2½' O.D. by D.C.) - conventional rig.
DEFICIENCIES NOTED AND CORRECTED:

DEFICIENCIES NOTED AND TO BE CORRECTED:

UNCORRECTABLE DEFICIENCIES:

CONTRACTOR:

Fleet Cement, Inc
DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: Pacific Energy Res.  Well: "NVLBU "82
Field: County: Spud Date:

VISITS:
1st Date: 10/11/82  Engineer: R. Martin  Time: 09:17 to 09:17
2nd (to)

Contractor: Flood Contractors, Inc.  Rig #:  Contractor's Rep. & Title: L. Bowery, RF
Casing record of well:

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 8 1/4" casing are approved.

Proposed Well Opsns: A b 1c 1d.  MACP:  psi  REQUIRED BOPE CLASS: 129

<table>
<thead>
<tr>
<th>Hole size:</th>
<th>fr. to</th>
<th>to</th>
<th>&amp; to</th>
</tr>
</thead>
</table>

CASING RECORD OF BOPE ANCHOR STRING

<table>
<thead>
<tr>
<th>Size</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
</tr>
</thead>
</table>

Cement Details

<table>
<thead>
<tr>
<th>Test Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gal. to Close</td>
</tr>
</tbody>
</table>

BOP STACK

| Model or Type | Vert. Bore Size (in.) | Press. Rtg. | Date Last Overhaul | TOTAL:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>API Ram Size (in.)</td>
<td>Manufacturer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A 1 7/8&quot; Bell Ruble Co</td>
<td>H400 1-3/4</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A 1 7/8&quot; Bell Ruble Co</td>
<td>H400 1-3/4</td>
<td>400</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACTUATING SYSTEM

<table>
<thead>
<tr>
<th>Accumulator Unit(s) Working Pressure</th>
<th>psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
</tr>
<tr>
<td>Distance From Well Bore</td>
<td>ft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accum. Manufacturer</th>
<th>Capacity</th>
<th>Precharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gal.</td>
<td>psi</td>
<td></td>
</tr>
<tr>
<td>2 gal.</td>
<td>psi</td>
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</table>

CONTROL STATIONS

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Manifold at accumulator unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote at Driller's station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
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</tbody>
</table>

EMERG. BACKUP SYSTEM

<table>
<thead>
<tr>
<th>N2 Cylinders</th>
<th>Press. Wkg. Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
<tr>
<td>L= &quot;</td>
<td>gal.</td>
</tr>
</tbody>
</table>

TOTAL: gal.

AUXILIARY EQUIPMENT

<table>
<thead>
<tr>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
</tr>
<tr>
<td>Fill-up Line</td>
</tr>
<tr>
<td>Kill Line</td>
</tr>
<tr>
<td>Control Valve(s)</td>
</tr>
<tr>
<td>Check Valve(s)</td>
</tr>
<tr>
<td>Aux. Pump Connect.</td>
</tr>
<tr>
<td>Choke Line</td>
</tr>
<tr>
<td>Control Valve(s)</td>
</tr>
<tr>
<td>Pressure Gauge</td>
</tr>
<tr>
<td>Adjustable Choke(s)</td>
</tr>
<tr>
<td>Bleed Line</td>
</tr>
<tr>
<td>Upper Kelly Cock</td>
</tr>
<tr>
<td>Lower Kelly Cock</td>
</tr>
<tr>
<td>Standpipe Valve</td>
</tr>
<tr>
<td>Standpipe Press. Gauge</td>
</tr>
<tr>
<td>Pipe Safety Valve</td>
</tr>
<tr>
<td>Internal Preventer</td>
</tr>
</tbody>
</table>

HOLES FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Hole Fluid Type</th>
<th>Weight</th>
</tr>
</thead>
</table>

| Storage Pits (Type & Size) |

REMARKS AND DEFICIENCIES:

OGD9 (8/92/GSR1/3M)
PERMIT TO CONDUCT WELL OPERATIONS

Steve Graner, President
NORTH SIDE OIL CORP.
P. O. Box 16007
Long Beach, CA 90807

Long Beach, California
September 16, 1996

Your proposal to abandon well Pacific Energy Resources/NWLBU 8-2, A.P.I. No. 037-09793, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Northwest Extension area, -- pool, Los Angeles County, dated 9/12/96, received 9/12/96 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment equivalent to this Division's Class II2M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from 3918' to 3850'.
4. The cement plug proposed to be placed to 2410' shall extend to at least 2375' outside and inside the casing.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.

6. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the placing, location and hardness of the cement plug from 5065' to 3850'.
   c. Witness the mudding of the hole.
   d. Witness the placing, location and hardness of the cement plug from 2575' to 2375'.
   e. Witness the placing, location and hardness of the cement plug from 70' to 6'.
   f. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:
1. This Division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

DEC: dc
w/ excess cement -5 ft

cc: Update
EDP
Gary Jones/Signal Hill
Pacific Energy Resources

NO BOND REQUIRED

Engineer: D. E. Curtis

Phone: 310/590-5311

William F. Guerard, Jr.
State Oil and Gas Supervisor

By T. C. Murrell
For R. K. Baker, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
Notice of Intention to Abandon Well

File in Duplicate

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well (North Side Oil Company 8-2) API No. 037-09793, Sec 13 T. 4S, R. 13W., SB B. & M., Long Beach Field, Los Angeles County, commencing work on October 10, 1996.

The present condition of the well is:

1. Total depth 5480'
2. Complete casing record, including plugs and perforations (present hole) see over
3. Last produced 8/93 5 0 460
   (Date) (Oil, B/D) (Gas, Mscf/D) (Water, B/D)
   (or)
4. Last injected
   (Date) (Water, B/D) (Gas, Mscf/D) (Surface pressure)

9. Is this a critical well according to the definition on the reverse side of this form? Yes ☒ No

The proposed work is as follows:

a/ MIRU, install and test BOPE
b/ Cleanout to greatest possible depth 5065'
c/ Cement from greatest possible depth to 3918'
d/ Fill hole with 72% mud from TOC to 2450'
e/ Shoot cavity shot @ 2575'
f/ Cement from 2410'-2575' inside and outside of pipe
   No 3850'
No 2375'
g/ Fill hole with mud from TOC to surface
h/ Cut and retrieve 8-5/8" casing from 70'
i/ Cement from 70' to 6'
j/ Weld plate on casing stub

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address P O Box 16007
Long Beach CA 90807

North Side Oil Corp.
(Name of Operator)

By Steve Oman, President
(Department)

9/12/96
(Date)
CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
   (a) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (b) Any airport runway.

(2) 100 feet of the following:
   (a) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (b) Any navigable body of water or watercourse perennially covered by water;
   (c) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (d) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgement or upon written request of an operator. This written request shall contain justification for such an exception.

2. 13-3/8" cmt @ 759'; 8-5/8" cmt @ 4016' (WSO); 5-1/2" cmt @ 5475' top @ 3950'; perf 4869' WSO; perf 4018'-5395'; perfs plugged 5065'-5415' and 5436'-5475'.
NORT IDE OIL COMPANY
NWLBU 8-2
API No. 037-09793

13" 46# Cmt 350 859

8 5/8" 32 5/36 Cmt 400 Sks

BFW 2225'
Top of cement-csq- 2911'

3950'
4016' WW0

5 1/2" Cmt

4869' WW0

4016' 5475'
5065'

5475' 5475'

5480' TD

squeezed
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY CORP.
SEE OGD156 DATED 5-13-94
DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: Petro Resources, Inc.    Well No.: NWLBU 8-2
API No.: 037-09793    Sec. 13    T. 4S    R. 13W    S.B. B&G
County: Los Angeles    Field: Long Beach

RECORDS RECEIVED    DATE
Well Summary (Form OG100)    3-6-84
History (Form OG103)    
Core Record (Form OG101)    
Directional Survey    
Sidewall Samples    
Other    
Date final records received    
Electric logs:

STATUS
Producing - Oil    
Idle - Oil    
Abandoned - Oil    
Drilling - Idle    
Abandoned - Dry Hole    
Producing - Gas    
Idle - Gas    
Abandoned - Gas    
Gas-Open to Oil Zone    
Water Flood Source    
DATE    RECOMPLETED 2/15/84

ENGINEER'S CHECK LIST
1. Summary, History, & Core record (duplic.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGD159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 5/30/84
RECORDS APPROVED 5/9/84
RELEASE BOND
Date Eligible
(Use date last needed records were received.)
MAP AND MAP BOOK N

OGD2 (12/80/DWRR/5M)
LONG BEACH OFFICE - USE REVERSE SIDE
History of Oil or Gas Well

Operator: Petro Resources, INC
Field: Long Beach
Well: NWLBU 8-2
County: Los Angeles
A.P.I. No.: 037-09793
Name: Joe D. Rose
Date: March 14, 1984

Signature: [Signature]
Address: 4200 Easton Dr., Bakersfield, CA 93309, Suite #16
Telephone Number: (805) 323-4118

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plug, perforation details, sidetracked junk, bailing tests and initial production data.

Date
2/14/84 SD @ 4085. Perf 4018-4055 w/4 jhpf.
2/15/84 Put on production.
Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 94309

Long Beach, Calif.
March 22, 1984

Your operations at well NWLBU 8-2, API No. 037-09793,
Sec. 13, T48 S, R 13 W, S.B. B & M. Long Beach Field, in Los Angeles County,
were witnessed on 2-15-84 G. Nuggelberg, Engineer representative of
the supervisor, was present from 0810 to 0820. There were also present Joe Rose,
Agent

Present condition of well: 13-3/8" cem 761', 8-5/8" cem 4016' WSO; 5 1/2" cem 3950'-5475',
perf 4839' WSO, perf 4118'-4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245'
& 5345'-5395', TD 5480'. Plugged w/ cem 5456'-5475' & 5415'-5065'.

The operations were performed for the purpose of inspecting the blowout prevention equipment
and installation.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
Low pressure valve on kill line.

CONTRACTOR: Graner Oil Co.

GM: mh

cc: Update

M. G. MEFFERD
State Oil and Gas Supervisor
Deputy Supervisor
V. F. Gaede
**Blowout Prevention Equipment Memo**

Operator: Petro Resources, Inc.  
Well: NWLBV 8-2  
Field: Long Beach  
County: L.A.

**Visits:**
1st: 2-15-84  
2nd:  

**Date:**
Muggeberg  
Time: 0810 to 0820

**Operator's Rep.:** Joe Roe  
**Title:** Agent

**Casing Record of Well:**
- 13 3/8" cement 761' 8 3/8" cement 4016' s-5' 5 7/8" cement 3950' 5475' perforated 496g' WSP
- perforated 422' 4190' 4700' 4 1/8"" cement 4945' @ int 4935' 5245' 5345' 5395' TD 5480' plugged 
- when 5450' 5475' 5485' 5488'

**Operations:**
Testing (inspecting) the blowout prevention equipment and installation.

**Decision:**
The blowout prevention equipment and its installation on the 8 3/8" casing are approved.

**Required Bope Class:**
II 2/1

**Hole Size:**

**Proposed Well Ops:**

<table>
<thead>
<tr>
<th>Proposed Well Ops:</th>
<th>a</th>
<th>b</th>
<th>a/b</th>
</tr>
</thead>
<tbody>
<tr>
<td>a/Her casing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hole size:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RPSP:**

**Casing Record (Bope Anchor String Only):**

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BOP Stack:**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

**TEST DATA:**

<table>
<thead>
<tr>
<th>Top of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing</td>
</tr>
<tr>
<td>Annulus</td>
</tr>
</tbody>
</table>

**Actuating System:**

<table>
<thead>
<tr>
<th>Accum. Unit(s)</th>
<th>Wkrg. Press.</th>
<th>psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
<td></td>
</tr>
<tr>
<td>Distance From Well Bore</td>
<td>ft.</td>
<td></td>
</tr>
</tbody>
</table>

**CONTROL STATIONS:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>gal.</td>
<td>psi</td>
</tr>
<tr>
<td></td>
<td>gal.</td>
<td>psi</td>
</tr>
</tbody>
</table>

**EMERG. BACKUP SYST.:**

<table>
<thead>
<tr>
<th>Press.</th>
<th>Wkrg. Fl.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N2 Cyl: No:</td>
</tr>
<tr>
<td></td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td>3 gal.</td>
</tr>
<tr>
<td></td>
<td>4 gal.</td>
</tr>
<tr>
<td></td>
<td>5 gal.</td>
</tr>
<tr>
<td></td>
<td>6 gal.</td>
</tr>
</tbody>
</table>

**Hole Fluid Monitoring Equipment:**

<table>
<thead>
<tr>
<th>Alarm Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit Aud. Vis. A</td>
</tr>
<tr>
<td>Pit Level Indicator B</td>
</tr>
<tr>
<td>Pump Stroke Counter C</td>
</tr>
<tr>
<td>Pit Level Recorder</td>
</tr>
<tr>
<td>Flow Sensor</td>
</tr>
<tr>
<td>Mud Totalizer</td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
</table>

**Remarks:**

- Hole Fluid Type: Water
- Weight: 
- Storage Pits

OGD9 (3/83/DWR 3M)
DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

1. Low pressure valve on fill line

CONTRACTOR

Graner Oil Co.
PERMIT TO CONDUCT WELL OPERATIONS

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 93309

Long Beach
February 8, 1984
California

Your proposal to alter casing in well NWLBU 8-2
A.P.I. No. 037-09793
Section 13, T. 4S, R. 13W, S.B. B. & M.,
Long Beach field, Northwest Extension area, Alamitos pool,
Los Angeles County, dated --, received 1-31-84 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, equivalent to this division's Class II2M requirements, or better, shall be installed and maintained in operating condition.
2. Well killing fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. This division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
4. THIS DIVISION SHALL BE NOTIFIED TO INSPECT THE INSTALLED BLOWOUT PREVENTION EQUIPMENT PRIOR TO COMMENCING DOWN-HOLE OPERATIONS.

NOTE: A crew drill may be required at the time of the blowout prevention equipment inspection.

RCM: mh

cc: Update

BLANKET BOND

Engineer Richard C. Manuel
Phone (213) 590-5311

M. G. MEFFERD, State Oil and Gas Supervisor

By V. F. Saede, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (9/83/GSR1/5M)
DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well NWLBu 8-2, API No. 037-09793.

Sec. 13, T. 4S, R. 13W, SB. & M., Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth 5480

2. Complete casing record, including plugs and perforations
   8-5/8 @4016, 5-1/2 3950-5475, 13-7/8 @759
   Perf 5165-5205, 5220-5245, 5345-5395 Cmt plug 5415-5065
   Perf 4640-4700, 4835-4845, 4870-4945
   Perf 4118-4228, sand fill @4306 (May, 1967)

3. Present producing zone name Alamitos; Zone in which well is to be recompleted Alamitos

4. Present zone pressure ± 1200 psi; New zone pressure ± 1200 psi

5. Last produced 7/67 (Date) 16 (Oil, B/D) 1000 (Water, B/D) 0 (Gas, Mcf/D)

The proposed work is as follows:

1. Check btm-clean out sand to below 4100.
2. Perf 4018-4055
3. POP.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 4200 Easton Drive #16
Bakersfield, Calif. 93309
(Street) (City) (State) (Zip)
Telephone Number (805) 323-4118

Petro Resources, Inc.
(Name of Operator)

By Joe D. Rose
(Print Name) (Signature) (Date)
REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Long Beach

Former owner: Sun Exploration & Production Co.

Name and location of well(s):
- NWLBU 5-1 (037-09795)
- NWLBU 5-2 (037-00397)
- NWLBU 5-3 (037-09796)
- NWLBU 5-4 (037-09797)
- NWLBU 6-1 (037-09788)
- NWLBU 6-2 (037-09789)
- NWLBU 8-1 (037-09792)
- NWLBU 8-2 (037-09793)
- NWLBU 8-3 (037-06496)
- NWLBU 8-4 (037-06415)
- NWLBU 8-7 (037-22512)
- NWLBU 9-3 (037-09791)
- NWLBU 9-4 (037-00392)
- NWLBU 9-5 (037-00142)
- NWLBU 9-6 (037-00393)
- NWLBU 9-2 (037-13525)

Sec. 13-4S-13W S.B.B.&M.

Date: June 15, 1983

Description of the land upon which the well(s) is (are) located:

New owner: Petro Resources, Inc.

Address:
4200 Easton Drive, Suite 16
Bakersfield, CA 94309

Type of organization: Corp.

Telephone No.: 805/323-4118

Date of transfer, sale, assignment, conveyance, or exchange: May 1, 1983

Reported by: Letter from Sun Exploration & Production Co. dated 5-16-83.


New operator new status (status abbreviation):
PA

Request designation of agent:
Joe D. Rose, same address.

Old operator new status (status abbreviation):
PA

Remarks:

OPERATOR STATUS ABBREVIATIONS

PA - Producing Active
NPA - No Potential, Active
PI - Potential Inactive
NPI - No Potential, Inactive
Ab - Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record
Initials Date
Form or record Initials Date
Form OGD121 CP 1-1-83 Map and book 137 7/11/83
Form OGD140 NOV NONE
New well cards CP 1-1-83 Bond status
Well records CP 1-1-83 Notice to be cancelled
Electric logs CP 1-1-83 Conservation Committee
Production reports CP 1-1-83 L. A. Assessors
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO. 
1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California
Oct. 4, 1979

Mr. L. B. Carroll, Jr., Agent
Sun Oil Co.
23928 Lyons Ave.
Newhall, CA 91321

Dear Sir:

Your request dated March 19, 1979, relative to change in designation of well(s) in Sec. 13, T. 4S, R. 13W, S.B B. & M., Long Beach, has been received; and in accordance with Section 3203, Public Resources Code, reading in part as follows:

"* * * The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

<table>
<thead>
<tr>
<th>Old Designation</th>
<th>API</th>
<th>New Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Oil Operators&quot;</td>
<td>037-09792</td>
<td>NWLB 8-1</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>2</td>
<td>NWLB 8-2</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>3</td>
<td>NWLB 8-3</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>4</td>
<td>NWLB 8-4</td>
</tr>
<tr>
<td>&quot;Pool&quot;</td>
<td>037-09795</td>
<td>NWLB 5-1</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>1</td>
<td>NWLB 5-2</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>2</td>
<td>NWLB 5-3</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>3</td>
<td>NWLB 5-4</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>4</td>
<td>NWLB 5-5</td>
</tr>
<tr>
<td>&quot;Amebco&quot;</td>
<td>037-09788</td>
<td>NWLB 6-1</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>1</td>
<td>NWLB 6-2</td>
</tr>
<tr>
<td>&quot;Flood Control&quot;</td>
<td>037-13525</td>
<td>NWLB 9-1</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>2</td>
<td>NWLB 9-2</td>
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<td>NWLB 9-5</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>6</td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

RWS:sc

cc: Update Center
     EDP
     Conservation Committee

M. G. Mefford
State Oil and Gas Supervisor

By: Richard W. Steele
Acting Deputy Supervisor
R. A. Ybarra
### REPORT OF PROPERTY AND WELL TRANSFER

**Field or county:** Long Beach  
**Former owner:** General Exploration Co.  
**District:** 1  
**Date:** February 15, 1979

#### Name and location of well(s)

<table>
<thead>
<tr>
<th>Sec. 11-4S-13W</th>
<th>Sec. 13-4S-13W</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Dominguez&quot; 2-10 (037-11859)</td>
<td>&quot;Flood Control&quot; 6 (037-00393)</td>
</tr>
<tr>
<td>&quot;Amebco&quot; 1 (037-09788)</td>
<td>&quot;Oil Operators&quot; 1 (037-09792)</td>
</tr>
<tr>
<td>&quot;Amebco&quot; 2 (037-09789)</td>
<td>&quot;Oil Operators&quot; 2 (037-09793)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 2 (037-13525)</td>
<td>&quot;Oil Operators&quot; 3 (037-06496)</td>
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<tr>
<td>&quot;Flood Control&quot; 3 (037-09791)</td>
<td>&quot;Oil Operators&quot; 4 (037-06415)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 4 (037-00392)</td>
<td>&quot;Pool&quot; 1 (037-09795)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 5 (037-00142)</td>
<td>&quot;Pool&quot; 2 (037-00397)</td>
</tr>
</tbody>
</table>

**Description of the land upon which the wells(s) are located:** Sec. 13-4S-13W

**Sec. 14-4S-13W**

| "Dominguez" 1 (037-11858) |

#### Date of transfer, sale, assignment, conveyance, or exchange:

**Date:** Dec. 1, 1978

<table>
<thead>
<tr>
<th>New owner</th>
<th>Type of organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Oil Company</td>
<td>Corporation</td>
</tr>
</tbody>
</table>

**Address:** 23928 Lyons Avenue  
**Newhall, CA 91321**

#### Reported by:

**Former operator**

**Confirmed by**

**New operator**

<table>
<thead>
<tr>
<th>New operator new status (status abbreviation)</th>
<th>Request designation of agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Old operator new status (status abbreviation)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td></td>
</tr>
</tbody>
</table>

#### OPERATOR STATUS ABBREVIATIONS

- **PA** - Producing Active
- **NPA** - No Potential, Active
- **P** - Potential Inactive
- **NP1** - No Potential, Inactive
- **Ab** - Abandoned or No More Work

#### FORM AND RECORD CHECK LIST

- **Map and book**
- **None to be continued**
- **New well cards**
- **Already in EDR**

### Deputy Supervisor:

M. H. Albright

### Signature:

Eleanor Rice
May 21, 1976

Mr. Robert L. Graves
GENERAL EXPLORATION CO.
4021 N. Pacific Place
Long Beach, California 90806

Dear Sir:

On May 20, 1976, Mr. G. W. Stark, our representative met with Bob Grey, your representative, to witness that one support piling was cut 20 feet below ground level. The Division approves of this method of pile removal if the holes are filled with tamped earth.

Sincerely,

A. D. Stockton
Associate Oil and Gas Engineer

ADS:dr
REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Long Beach
Former Owner: Union Oil Co. of California
Description of Property: Sec. 15, T. 4 S., R. 13 W., S. B. E. & N.

List of Wells: "Oil Operators" 1, "Oil Operators" 2, "Oil Operators" 3 and "Oil Operators" 4. ("Oil Operators" 1, idle; other wells are active)

Date of Transfer: January 1, 1961
New Owner: General Exploration Co. of California
Address: 750 Subway Terminal Building, 417 South Hill Street, Los Angeles 13, Calif.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)

Old Operator New Status: PA
New Operator New Status: PA
Request designation of agent: No

Remarks:

ob- Mr. E. H. Kusser
Prod. Dept.
Conservation Committee

INITIALS | DATE
----------|--------
Form 121  |        |
New Well Cards |      |
Well Records |       |
Electric Logs |       |
Production Reports |     |
Map and Book |       |
Form 148  |        |
Notice to be cancelled |    |

LEGEND
PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells
Note—If transfer does not change overall status enter "No Change"
Form 10

Date Received 11-19-54

Elec. Log Radio Log
Direct. Surv. Other Data
Location
Elevation
Prod. Repts.

Completed Producing on 10-27-57

Abandoned on

BOND Blanket

End Prem. year

Hold Bond

Data Needed

Final Letter

Receipt for

CLERK

New Well Records

Subsequent Work

Well Summary

Drillers Log

Core Record

History

History

Other

Engineer

Release Date Elig. 150b

Release Requested Superseded

Abandon

Redrill

Deepen

Plug

Alter Csg.

Abandon
### Casing Record

**History of Oil or Gas Well**

**REPAIR REPORT**

**Union Oil Company**

**Long Beach**

**Los Angeles**

**Well No.:**

**Field:**

**County:**

**Sec.:**

**T.:**

**R.:**

**B. & M.:**

**Tools:**

**Period Ending:**

**October 26, 1959**

**Remarks:**

**November 9, 1959**

<table>
<thead>
<tr>
<th>No.</th>
<th>Tours</th>
<th>Date</th>
<th>Depth (in)</th>
<th>Effective Depth (in)</th>
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<tbody>
<tr>
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<td>10-20</td>
<td>1959</td>
<td>3480</td>
<td>Plug 5065</td>
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<tr>
<td>1</td>
<td>10-26</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Casing Record at Start of Work:**

- 13-3/4" C 759'
- 8-5/8" C 4016' hSO.
- 1525' 5-1/2" C 5475'. Splice test Ok.
- Bullet p & plgd., 5265-5325'. 5265-5245'. Test holes 4869' OK.

**Proposed Work:**

- Add perforations in the Alamitos zone.

**Production Before Repair:**

- 7 Gross - 6 Net - 21.8° - 12.1% zero hold for this job.

**Casing Record at Completion of Work:**

- 13-3/8" C 759'
- 8-5/8" C 4016' hSO.
- 1525' 5-1/2" C 5475'. Splice test Ok.
- Bullet p & plgd., 5265-5325'. 5325-5245'. Test holes 4869' OK.
- Bullet p 4640-4700', 4835-4845', 4870-4945'.
- P & Rep 4915-4945'.

**Contractor:**

- Moved in and strung up 2 new tubing lines.
- Withdrawal rods and pump. Hinged to pull tubing. Could not get twist out of line.
- Strung 4 lines.

**Fulfilled Tubing:**

- Strung in with 2-5/8" Cavins sand pump and found top of sand fill at 4995'. Ran in 4-1/2" impression block - stopped at 4995'. Tried to break off 8-5/8" production head - unable to do so.


**Gun perforated 5-1/2" casing from 4228-4118' with two 1/2" bullets per foot.** Used S-J wire line equipment. Fluid level at start 4450' - at finish 1200'. Very good blow of gas. Had approximately 400' of sand fill from 4900' to 4500'. Cleaned out to 4880' with 2-5/8" Cavins sand pump going through bridge.

**Crew off.**

**Ran 2-5/8" Cavins sand pump and cleaned out sand from 4720' to 4780'.** Laid down excess tubing. Ran tubing. Laid down excess rods. Ran rods and pump. Spaced pump. Loaded out tools. Fluid level at 700'.

---

**Names of Drillers/Head Well Pullers:**

Terminal Drilling Co. - Contractor

---

**District Engineer:**

[Signature]

---

**Confirmed:**

[Signature]
WELL NO. Oil Operators #2
FIELD Long Beach
COUNTY Los Angeles
SEC R. 13 W. S.B. B. & M.

November 8, 1959

SPOOLED TUBING LINE OFF OF DERRICK. LOADED OUT TOOLS. CONTRACTOR MOVED OUT.

PRODUCTION DATA

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DIVISION OF OIL AND GAS
RECEIVED

NOV 19 1959
INGLEWOOD, CALIFORNIA

NAME OF DRILLERS/HEAD WELL PULLERS:
Terminal Drilling Co. - Contractor

VAUGHN L. MOORE
DISTRICT ENGINEER
COMPLETED PRODUCING ON 10-27-59
ABANDONED ON
Mr. C. F. Bowden
P. O. Box 7600
Los Angeles 54, California
Agent for UNION OIL COMPANY OF CALIFORNIA

Inglewood, 3, Calif.
October 21, 1959

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 2,
Section 13, T. 4 S, R. 13 W., S.B. & M., Long Beach Field, Los Angeles County,
dated Oct. 19, 1959, received Oct. 20, 1959, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE.
5-1/2" cem. 3950'-5475', perf. at intervals 5395'-5465', perf. 4869', W.S.O.,
plugged with cement 5480'-5456', 5417'-5065'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5480' Plug 5065'
2. Complete casing record.
   13-3/8" C 759'
   8-1/2" C 4016' WSO
   14-1/6-5/8" C 4195' incl. 90'-pulled,
   14-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd 5165'-5205', 5230'-5245', 5345'-53951.
   Test holes 4869' OK.
   Bullet pf 4640'-4700', 4835'-4845', 4870'-4945'.
   Rep: 4915'-4945'.
3. Last produced. Sept. 1959

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing.
2. Check hole open to top of plug at 5065'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" casing from 4118'-4228' with two 1/2" bullet per foot.
5. Check hole open to top of plug at 5065'.
6. Run rods and tubing.
7. Test on production."

DECISION
THE PROPOSAL IS APPROVED.

E. H. MUSSER, State Oil and Gas Supervisor

By

cc Vaughn S. Moyer

Blanket Bond 19447-250 SBO SPO
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given before work begins; one copy only

...Santa Fe Springs, Calif.          October 19, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. [Well Number]

OIL OPERATORS #2

[Well Location]

[Field Name] Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 5480' Plug 5065'

2. Complete casing record.

13-3/8" C 759'
8-5/8" C 4016' WSO
1141.6-5/8" H 4105' incl. 90' pfs., pulled.
1525' 5-1/2" C 5475'. Splice test OK.
Bullet pf & plgd 5165-5205' 5220-5245', 5345-5395.
Test holes 4869' OK
Bullet pf 4640-4700', 4835-4845', 4870-4945'.
Repf. 4915-4945'.


The proposed work is as follows:

1. Pull rods and tubing.
2. Check hole open to top of plug at 5065'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" casing from 4118-4228' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 5065'.
6. Run rods and tubing.
7. Test on production.

[Operator's Name]

[Operator's Signature]

Address one copy of notice to Division of Oil and Gas in district where well is located.
Date Received 10-21-53 Form 100 __ 101 __ 103 __

Elec. Log __________ Radio Log __________

Direct. Surv. __________ Other Data __________

Location __________

Elevation __________ Steno. __________

ENGINEER

BOND __________ Release __________ Date Elig. __________ 150b __________

End Prem. Yr. __________ Release Requested __________ Superseded __________ Aban. __________

HOLD BOND __________ Reason __________

__________________________

Data Needed __________

__________________________ Final Letter Eng. __________

Seal __________

Received OK

June 11-2-53
## Oil Operators #2

**Location:** Long Beach, Los Angeles (Sec. 13 T. 4 S. R. 13 W. S.B., Field: Los Angeles, County: Los Angeles)

### Repair Report

- **Product Hoist:** Contract
- **Tools:**
- **Period Ending:** September 10, 1953
- **Remarks:** (Note ineffective casing)

### Casing Record

- **Date:** Oct 21, 1953
- **Location:** Los Angeles, California

### Proposed Work

- **Plug with cement to 5100'.**
- **Test for WSO at 4869'.**
- **Gun perf 4970-4945'.**
- **Test on production.**

### Production Before Repair

- **June, 1953 - 4 B/D Net - 23.8° - 83.0%**
- **12'' above derrick floor.**

### Casing Record at Start of Work

- **T.D.: 4105' Deepen 5480'**
  - 13-3/8'' C 759'
  - 8-5/8'' C 4016'' WSO
  - 4114'' 4-5/8'' H 4205. Mate-60'--6--1819'--1144'--Pulled
  - 1525'' 5/8'' C 5475' Splice test OK
  - Bullet 30' 0.96'' 5165-5205', 5220-5245', 5345-5395'.

### Casing Record at Completion of Work

- **T.D.: 5480'**
  - 5065' Plugged
  - 13-3/8'' C 759' 8-5/8'' C 4016 WSO
  - 4114'' 4-5/8'' H 4105' Mate-99'--Pulled
  - 1525' 5/8'' C 5475' Splice test OK
  - Bullet perf & plgd 5265-5295', 5220-5245', 5345-5395'. Test holes 4369' OK

### Work performed

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### Notes
- **California Production Service, Contractor, moved in and rigged up.**
- **Furled rods and tubing.**
- **Clean out and plug.**
  - Bailed with 3-1/2'' Cavins sand pump from 5390' to 5415'. Ran 4-3/4'' impression block to 5415'. Fluid level at 4060'. Dumped 16 sacks of Blue Diamond construction cement in 4 hours from 5415' to 5270'.
- **Found top of cement at 5263'. Fluid level at 3950'. Dumped 18 sacks of Blue Diamond construction cement. Fluid level 3920'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.
- **Found fluid level at 3905'.**

### Wells and Perforating

- **WSO & Perforating**
  - Ran in with McCallough 3-1/2'' o.d., 4 shot gun. Checked fluid level at 3920'. Shot four 1/2'' holes at 4869'. Let set four hours (7:15 a.m. to 11:45 a.m.) No fluid rise. Water shut-off witnessed and approved by Division of Oil and Gas representative.
  - Ran in with 3-1/2'' o.d., 20 shot gun and perforated 4-1/2'' casing with four 1/2'' holes per foot from 4945' to 4870'. Fluid level after perforating 3870'.
  - Checked fluid at 3840', fill at 5047'. Cleaned out sand with 3-1/3'' Cavins sand pump from 5047' to 5065'. Ran tubing.
  - Ran rods. Put well on production. **California Production Service, Contractor, moved out.**
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CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3630', no fill. 4th impression block went to bottom - 5065'.

PERFORATING

Ran in with 6" o.d., Luna Wells 1-2 mm perforator and checked fluid level at 3750' at 7:45 a.m. Shot four 1/2" holes per foot from 4945' to 4915'. Very light gas blow on 5th run. Fluid level at 3730' at 10:40 a.m. Perforated from 4945' to 4935' with light to medium gas blow. Perforated from 4700' to 4640' with light to moderate blow. Total holes shot - 400. Fluid level 3450' at 1:30 p.m. Net fluid rise 300'. No fill.


Wall completed pumping in the Brown Zone.
DIVISION OF OIL AND GAS
UNION OIL COMPANY

WELL NO. 13-4-8 13-W S.B.

(FIELD) Long Beach

(COUNTY) Los Angeles

SEC. 13 T. 4 S. R. 8 W. B. M.

(OPTIONS) Prod. Hoist - Contract

(PERIOD ENDING) October 6, 1953

PRODUCTION DATA

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DIVISION OF OIL AND GAS
RECEIVED

OCT 21, 1953

LOS ANGELES, CALIFORNIA

Vanguard S. Moyer,

DISTRICT ENGINEER

REMARKS:
- 13-3/8" C.
- 13-3/8" C 4016' W.O.
- 13-3/8" C 5365' W.O.
- 13-3/8" C 6106' W.O. (1st Run)
- 13-3/8" C 6257' W.O. (2nd Run)
- 13-3/8" C 6261' W.O. (3rd Run)
- 13-3/8" C 6275' W.O. (4th Run)
- 13-3/8" C 6289' W.O. (5th Run)
- 13-3/8" C 6345' W.O. (6th Run)
- 13-3/8" C 6395' W.O. (7th Run)
- Production test OK. Bullet - 50' - 5365' W.O. - 5245' W.O. - 5245' W.O. - 5345' W.O. - 5395' W.O. - 5395' W.O.
- Test holes 4869' OK. Bullet - 4640' W.O. - 4700' W.O.

NOTE IN AFFECTIVE CAPABILITIES:
- Rep. 4915-4945'.
Report on Test of Water Shut-off
(BAILING)

Los Angeles 15 Calif. September 16 1953

W S Eggleston

Los Angeles 17 Calif.

Agent for UNION OIL CO OF CALIFORNIA

Dear Sir:

Your well No. "Oil Operators" 2, Sec. 13, T. 4 S, R. 13 W, S.B. B & M. Long Beach Field, in Los Angeles County, was tested for water shut-off on September 8, 1953. Mr. W C Bradford, Inspector, designated by the supervisor, was present as prescribed in Sec. 3222 and 3223, Ch. 93, Stat. 1939; there were also present O Bradford, Moist Operator and M Barr, Helper.

Shut-off data: 5-1/2 in. 15 lb. casing was cemented at 5475 ft. on October 29, 1941 in 7-5/8 hole with 275 sacks of cement of which XXX sacks was left in casing. Casing record of well: 13 3/8 cem. 759 ft.; 8 5/8 cem. 4016 ft.; 5-1/2 cem. 3950 ft.; 5475 ft. perf. 5395' - 5345' 5245' - 5220' 5205' - 5165' four 1/2 holes 4869 ft. W.S.O. plugged with cement 5480' - 5456' and 5417' - 5065'. Reported total depth 5480 ft. B. and with cement from 5456' ft. to 5065 ft. Cleaned out to 5065 ft. for this test.

Casing record data:

THE INSPECTOR ARRIVED AT THE WELL AT 12:30 P.M. AND MR. BRADFORD REPORTED THE FOLLOWING:

1. The 5-1/2" casing was shot-perforated with four 1/2" holes at 4869 ft.
2. The fluid level was at 3910 ft. at 7:00 a.m. on September 8, 1953.

THE INSPECTOR NOTED that no fluid entered the well while standing 5-1/2 hr. for test.

The test was completed at 1:30 p.m.

THE 5-1/2" SHUT-OFF AT 4869 ft. IS APPROVED.

R. D. BUSH, State Oil and Gas Supervisor

By R T V Thalheim, Deputy

cc Long Beach
Mr C F Bowden
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 153-1094

Los Angeles 15 Calif. September 16 1953

Mr. W S Bostick
1109 Union Oil Building
Los Angeles 17 Calif.
Agent for UNION OIL CO OF CALIFORNIA

Dear Sir:

Operations at your well No. "Oil Operators" 2 Sec. 13, T. 13 S, R. 13 W, S B., B. & M., Long Beach Field, in Los Angeles County, were witnessed by G C Harenbush, Inspector, on September 4, 1953. There was also present A Fowkis, Foreman W Bradford, Well Fuller

Casing Record 13-3/8" cem. 759', 8-5/8" cem. 4016', Junk XXX W.S.O.: 5-1/2" cem. 3950'-5475', perf. 5395'-5345', 5245'-5220', 5205'-5165', T.D. 5480', plugged with cement 5480'-5456', 5417'-5065'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5417' to 5065', in the process of plugging back. The inspector arrived at the well at 3:00 p.m. and Mr. Fowkis reported:

1. The hole could not be cleaned out below 5417' because of a hard sand plug.
2. On September 3 and 4, 1953, 34 sacks of cement was dumped into the hole beginning at 5417'.

THE INSPECTOR NOTED that the boiler could not be spudded below 5065', and brought up a sample of set cement.

The test was completed at 4:00 p.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 5065' ARE APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By: Deputy

cc Long Beach
Mr C F Bowden Div Eng
Union Oil Co of California
9645 S Santa Fe Springs Rd
Whittier California
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P. 153-1075

Los Angeles 15 Calif. August 25 1953

Mr. W.S. Eggleston
1109 Union Oil Building
Los Angeles 17 Calif.

Agent for UNION OIL CO OF CALIFORNIA

Dear Sir:

Your proposal to plug & alter casing Well No. 2, Section 13 T. 4 S., R. 13 W., S.B., B. & M., Long Beach Field, Los Angeles County, dated Aug. 20 1953, received Aug. 21 1953, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:

The hole is plugged with cement from 5480'-5456'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth, 4105' Deepen 5480'
2. Complete casing record,
13-3/8' C 759'
8-5/8' C 4016' W.S.O.
14.16 6-1/2' H. 1405' including 901 perforations, Filled.
1525' 5-1/2' C 5475', splice test O.K.
Bullet perforate 5165-5205, 5220-5245, 5345-5395'.
3. Last produced, June 1953 4 B/D (Date) 22.8' (Net Oil) 83.0% (Out)"

PROPOSAL
"The proposed work is as follows:
1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4870' to 4945'.
4. Test on production."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS
1. The location and hardness of cement plug at 5100'.
2. A test of the effectiveness of the 5-1/2' shut-off at 4869'.

JLW:CH

cc Long Beach

Mr C. F. Bowden Div Engineer
Union Oil Co of California
9645 South Santa Fe Springs Rd
WHITTIER California

R. D. BUSH
State Oil and Gas Supervisor
Blanket bond.
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Whittier, Calif. August 20, 1953

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. 13, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M. Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth.
   4,105' Deepen 5480'

2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 1016' W.S.O.
   11-1/4" 6-5/8" H 4105' including 90' perforations. Pulled.
   1525' 5-1/2" C 5475', splice test O.K.
   Bullet perforate 5165-5205, 5220-5245, 5345-5395'

3. Last produced. June 1953
   (Date) 1 bld
   (Net Oil) 23.8°
   (Gravity) 83.0°
   (Cst)

The proposed work is as follows:

1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4470' to 4945'.
4. Test on production.

[Signature]

C. F. Bearden, Division Engineer

UNION OIL COMPANY OF CALIFORNIA

[Name of Operator]

Address One Copy of Notice to Division of Oil and Gas in District Where Well Is Located
**DIVISION OF OIL AND GAS**

**Subsequent Work Report**

**Operator:** UNION OIL COMPANY OF CALIFORNIA  
**Field:** LONG BEACH

**Well No.:** OIL OPERATORS NO. 2  
**Sec.:** 13  
**T.:** 4-S  
**R.:** 13-W  
**S.B.:** B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated January 11, 1938, was filed.

**Date:** December 5, 1941  
**Title:** DIVISION ENGINEER  
(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

### Casing Record at Beginning of Work

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-6</td>
<td>4105'</td>
<td>Rig up rotary to deepen. Pulled rods and tubing.</td>
</tr>
<tr>
<td>10-8</td>
<td>4115'</td>
<td>Cleaned out and deepened with oil circulation through 6-5/8&quot; liner to 4115'. Took hold of liner and jarred out same.</td>
</tr>
<tr>
<td>10-10</td>
<td>4120'</td>
<td>Drilled to 4120 and set Eastman removable whipstock.</td>
</tr>
<tr>
<td>10-28</td>
<td>5480'</td>
<td>Directionally drilled hole to 5480'. Location at &quot;S&quot; point 463' north and 50' east, loss 31', location at 5480' is 438' north and 40' east, loss 31'.</td>
</tr>
<tr>
<td>10-29</td>
<td>5480'</td>
<td>Cemented 1525.19' of new 5-1/2&quot; J-55 15-1/2&quot; Bethlehem seamless casing at 5475', including Burns plain liner hanger at top, 275 sacks of Slow Colton cement, Halliburton Cementing Company.</td>
</tr>
</tbody>
</table>
| 11-1   | 5480'      | Plug 5456'  
|        |            | Found top of cement at 5245'. Cleaned out cement to 5456'. Bailed fluid from surface. Could not lower below 1050'. |
| 11-2   | 5480'      | Plug 3945'  
|        |            | Recemented splice with 100 sacks (50 Victor Hi-Temperature and 50 sacks Slow Colton), through drill pipe and Halliburton shoe squeeze tool set at 3911'. Displaced all of cement out of drill pipe. Final pressure 1375#. Cleaned out cement from 3905-3945'. |

### Casing Record at Present

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot; C 759'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-5/8&quot; C 4016' O.K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>114' of 6-5/8&quot; L 4105' incl 90' perf.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot; C 759'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-5/8&quot; C 4016' O.K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1525' of 5-1/2&quot; C 5475'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun Perforated 5165-5205'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5220-5245'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5345-5395'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: UNION OIL COMPANY OF CALIFORNIA  Field: LONG BEACH

Well No.: OIL OPERATORS NO. 2  Sec.: 13  T.: 4-S  R.: 13-W  SB  B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated January 11, 1938, was filed.

Signed: 

Date: December 5, 1941  Title: DIVISION ENGINEER

Outlines in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of socks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date  DEPTH  EFF.DEPTH  REMARKS
11-4  5480'  Plug 5456' Cleaned to 5456' (cement from 3945-3970'). Bailed fluid to 3000', stood eight hours. Splice test OK by Division of Oil and Gas. No rise.
11-6  5480'  Plug 5456' Replaced mud with oil and perforated 5-1/2" casing with Lane-Wells gun, 1/2" holes, as follows

5165-5205', 81 holes
5220-5245', 49 holes
5345-5395', 100 holes

Ran 5313' 2-1/2" tubing and rods and put on pump. Pumping unit broke after pumping 18 barrels of oil.

11-8  Repairing pumping unit.
11-9  Repairing pumping unit.
11-10  Repairing pumping unit.
11-11  Production - 116 net, 25% cut, P 15 hours
        "  83 net, 23.8° gravity, 2.8% cut, P 24 hours
11-12  74 net, 25.4° gravity, 4.6% cut, P 24 hours
        "  56 net, 25.4° gravity, 2.4% cut, P 24 hours
11-22  November Production - 1,317 barrels in 20 days.
**DIVISION OF OIL AND GAS**

**LOG AND CORE RECORD OF OIL OR GAS WELL**

Operator: UNION OIL COMPANY OF CALIFORNIA  
Field: LONG BEACH  
Well No.: OIL OPERATORS NO. 2  
Sec.: 13, T. 4S, R. 13W, SB  
B. & M.

**FORMATIONS PENETRATED BY WELL**

<table>
<thead>
<tr>
<th>Depth To</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4800</td>
<td>4802</td>
<td></td>
<td></td>
<td>Took 3.8 core of oil stained, medium, coarse gray sand with a basket while fishing for pieces of a disc bit.</td>
</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-10317

Los Angeles, Calif. November 7, 1941

Mr. W. S. Aggleston,
Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 48, R. 13W. S. B., B. & M.,

Long Beach Field, in Los Angeles County, were witnessed by

James T. Carriel, Inspector

on November 4, 1941. There was also present A. G. Hilton, Engineer,

and P. Desarn, Drilling Foreman.

Casing Record

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>Junk None</td>
</tr>
<tr>
<td>5-1/2</td>
<td>Plugged with cement 5450'-5456'</td>
</tr>
</tbody>
</table>

The operations were performed for the purpose of demonstrating that no fluid has access to the well between the 8-5/8" and 5-1/2" casings.

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 6:10 P. M. AND MR. HILTON REPORTED THE FOLLOWING:

1. All of the 8-5/8" casing was pulled out of the hole.

2. A 7-5/8" rotary hole was drilled from 4105' to 5480'.

3. On October 29, 1941, 1525' of 5-1/2" - 15 lb. casing was cemented at 5475' with 275 sacks of Nov Colton cement.

4. The 8-5/8" - 5-1/2" casing splice tested wet.

5. On November 2, 1941, the 8-5/8" - 5-1/2" casing splice was cemented with a Halliburton cementer set at 3911' with 100 sacks of cement. It was estimated that 54 sacks of cement was forced away under a 1375 lb. final pressure.

6. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3905' to 3970' (equivalent to 16 sacks) and the casing was cleaned out to 5456'.

7. The fluid in the hole was bailed to 3000' at 10:00 a. m. on November 4, 1941.

THE INSPECTOR NOTED THE FOLLOWING:

1. No fluid entered the well while standing 8 hr. for test.

2. The hole was open to 5456'.

The test was completed at 7:05 p. m.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT Fluid does not have access to the well between the 8-5/8" and 5-1/2" casings.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Proposed Operations

Los Angeles, Calif. September 15, 1941.

Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 2, Section 13, T. 4 S., R. 23 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated Sept. 11, 1941, received Sept. 12, 1941, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:
"The present condition of the well is as follows:
Total Depth 4105
13-3/8 cmtd. 759
8-5/8 cmtd. 4016 O.K.
114-6-5/8 landed 4105 inc. 90 perforated.
It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1461 oil - 29224 water - 31 days."

PROPOSAL:
"The proposed work is as follows:
1. Pull 6-5/8 liner
2. Deepen well to 5450
3. Cement blank 5-1/2 liner 5450 to 3950
4. Test splice at 3950 by Division of Oil and Gas
5. Perforate R S & T Zones at intervals
6. Test on production."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT:
1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be provided and ready for use at all times.
3. Any hole to be sidetracked in any oil zone shall be filled with cement, if possible.
4. The formations to be left back of the 5-1/2" casing shall be mudded in a manner consistent with good drilling practice.
5. This division shall be kept informed of the results of tests, after each stage of perforating, and will designate any additional requirements at that time.

cc- H. H. Winter
Long Beach
ABR:OH

R. D. BUSCH
State Oil and Gas Supervisor

By: E. H. Muser
Deputy
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Santa Fe Springs, Calif. September 11, 1941

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing in well No. Oil Operators #2

Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

Total Depth 4105
13-3/8 cmtd. 759
8-5/8 cmtd. 4016 O.K.
114-6-5/8 landed 4105 inc. 90 perforated

It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1461 oil - 29224 water - 31 days

The proposed work is as follows:

1. Pull 6-5/8 liner
2. Deepen well to 5450
3. Cement blank 5-1/2 liner 5450 to 3950
4. Test splice at 3950 by Division of Oil and Gas
5. Perforate R S & T Zones at intervals
6. Test on production

Union Oil Company of California

(Name of Operator)

By

Division Engineer

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES

No. 2797

Name of Operator
Los Angeles

Address
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T. 4 S.
R. 19 W. Long 7000 B. & M., as herewith enumerated by well numbers.

Logs:

History:

Core record:

Subsequent work:

R. D. BUSH, State Oil and Gas Supervisor

Deputy

DUPPLICATE

FORM 127. 46819 7-37 3M
### History of Oil or Gas Well

**Operator:** UNION OIL COMPANY OF CALIFORNIA  
**Field:** LONG BEACH

**Well No.** OIL OPERATORS B, Sec. 13, T. 4-8, R. 13-W, S.D. B. & M.

**Signed:** [Signature]

**Date:** Jan. 11, 1939  
**Title:** District Engineer (President, Secretary or Agent)

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It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled, cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-13</td>
<td>Spudded in and drilled with 17&quot; rotary bit.</td>
</tr>
<tr>
<td>11-17</td>
<td>Drilled with 17&quot; rotary bits to 761'. Cemented new 13-5/8&quot; 45-97# National seamless slipjoint casing at 750' with 350 ex Nonolite Velox cement. Cementing operations witnessed and approved by Stolz, of Division of Oil &amp; Gas.</td>
</tr>
<tr>
<td>11-19</td>
<td>Found top of cement at 747'. Cleaned out cement and plugs and drilled ahead with 12-1/4&quot; bits.</td>
</tr>
<tr>
<td>12-2</td>
<td>Drilled with 12-1/4&quot; bits to 3859'. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td>12-5</td>
<td>Drilled with 12-1/4&quot; bits to 3935' and cored with 7-5/8&quot; core barrels to 4034'. Ran Schlumberger Survey. Reamed out core hole with 12-1/4&quot; bit to 4016'. Cemented 8-5/8&quot; 32# Grade &quot;C&quot; (1963' of 36# Grade &quot;C&quot; on bottom) 8-thread rounded seamless casing at 4016' with 400 ex cement (200 ex Vistor oil well and 200 ex Vistor construction).</td>
</tr>
<tr>
<td>12-10</td>
<td>Found top of cement at 3989. Drilled out cement and plugs to 4016 and cleaned out to 4021. Water shut off test on 8-5/8&quot; casing at 4016 witnessed and approved by Stolz, of Division of Oil &amp; Gas. Drilled and cored to 4075'.</td>
</tr>
<tr>
<td>12-12</td>
<td>Cored to 4105. Ran Schlumberger Survey. Landed 114' of 8-5/8&quot; 25# Grade &quot;C&quot; casing at 4105', including 90' of 10-3-8 120-mesh Kobe perforated on bottom. Bailed to 1200' and well started flowing by heads.</td>
</tr>
<tr>
<td>12-14</td>
<td>Bailed hole clean of mud and sand. Landed 3&quot; upset tubing at 3949'. Ran rods and installed pumping unit. Put well on pump 5:00 P.M. 12-14-37.</td>
</tr>
</tbody>
</table>
### History of Oil or Gas Well

**Operator:** UNION OIL COMPANY OF CALIFORNIA  
**Field:** LONG BEACH

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Sec.</th>
<th>T.</th>
<th>R.</th>
<th>S.B.</th>
<th>S.B.</th>
<th>Signed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>4-S</td>
<td>13-W</td>
<td>B. &amp; M.</td>
<td></td>
<td>Henry Winter</td>
</tr>
</tbody>
</table>

**Date:** Jan. 11, 1938  
**Title:** District Engineer

(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

#### PRODUCTION TEST DATA:

<table>
<thead>
<tr>
<th>Date</th>
<th>Gross</th>
<th>Net</th>
<th>Grav.</th>
<th>Cut</th>
<th>Status</th>
<th>Bean</th>
<th>T.P.</th>
<th>C.P.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
<td>391</td>
<td>203</td>
<td>23.8</td>
<td>40.0</td>
<td>F 10</td>
<td></td>
<td></td>
<td></td>
<td>On pump 5:00 P.M.</td>
</tr>
<tr>
<td>12-15</td>
<td>969</td>
<td>554</td>
<td>#</td>
<td>1.7</td>
<td>F 24</td>
<td></td>
<td></td>
<td></td>
<td>Well started to flow in morning. Sanded up. Killed well. Rigged up to pull. Pulled rods and tubing. Ran bailer and found hole open to bottom (4105). Landed 5&quot; upset tubing at 3935.</td>
</tr>
<tr>
<td>12-16</td>
<td>673</td>
<td>932</td>
<td>#</td>
<td>1.3</td>
<td>#</td>
<td></td>
<td></td>
<td></td>
<td>Wall started flowing without swabbing</td>
</tr>
<tr>
<td>12-17</td>
<td>1757</td>
<td>1625</td>
<td>#</td>
<td>7.5</td>
<td>#</td>
<td></td>
<td></td>
<td></td>
<td>No daily gas.</td>
</tr>
<tr>
<td>12-18</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dec gas 18,573 MCF</td>
</tr>
<tr>
<td>12-19</td>
<td>355</td>
<td>220</td>
<td>23.8</td>
<td>36.0</td>
<td>F 6</td>
<td>24/64</td>
<td>220</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>12-20</td>
<td>1482</td>
<td>1408</td>
<td></td>
<td>6.4</td>
<td>F 24</td>
<td></td>
<td>330</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>12-21</td>
<td>1139</td>
<td>1109</td>
<td>#</td>
<td>1.8</td>
<td>F 24</td>
<td></td>
<td>360</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>12-22</td>
<td>984</td>
<td>974</td>
<td>#</td>
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<td>#</td>
<td></td>
<td>350</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>12-23</td>
<td>988</td>
<td>958</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td></td>
<td>300</td>
<td>510</td>
<td></td>
</tr>
<tr>
<td>12-24</td>
<td>1053</td>
<td>1042</td>
<td>#</td>
<td>#</td>
<td>57/64</td>
<td>125</td>
<td>400</td>
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<td></td>
</tr>
<tr>
<td>12-25</td>
<td>1117</td>
<td>1101</td>
<td>#</td>
<td>1.4</td>
<td>14/14</td>
<td>50</td>
<td>875</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-26</td>
<td>1093</td>
<td>1082</td>
<td>#</td>
<td>1.0</td>
<td>14/14</td>
<td>40</td>
<td>875</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-27</td>
<td>1027</td>
<td>1015</td>
<td>#</td>
<td>1.2</td>
<td>#</td>
<td>35</td>
<td>860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-28</td>
<td>979</td>
<td>966</td>
<td>#</td>
<td>1.3</td>
<td>#</td>
<td>35</td>
<td>860</td>
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<td></td>
</tr>
<tr>
<td>12-29</td>
<td>973</td>
<td>963</td>
<td>#</td>
<td>1.0</td>
<td>#</td>
<td>25</td>
<td>850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-30</td>
<td>963</td>
<td>956</td>
<td>#</td>
<td>0.8</td>
<td>#</td>
<td>25</td>
<td>850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-31</td>
<td>938</td>
<td>929</td>
<td>#</td>
<td>1.0</td>
<td>#</td>
<td>25</td>
<td>870</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator: Union Oil Company of California
Field: Long Beach

Well No.: Oil Operators 2
Sec.: 13
T.: 4-6
R.: 13-7
S.B.: B. & M.

Location: 523' WLY along the center line of Alisby Rd and then 461' WLY at 90° Elevation: 66.97

In compliance with the provisions of Chapter 718, Statutes of 1915, as amended, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date: Jan. 11, 1938
Signed: Henry Winters
Title: District Engineer
(Engineer or Geologist) (Superintendent) (President, Secretary or Agent)

Commenced drilling: Nov. 12, 1937
Completed drilling: Dec. 14, 1937
Drilling tools: Rotary

Total depth: 4206
Plugged depth: Junk

GEOLOGICAL MARKERS

<table>
<thead>
<tr>
<th>Depth</th>
<th>Markers</th>
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<tbody>
<tr>
<td>3597-3602</td>
<td>Wilbur Shale</td>
</tr>
<tr>
<td>3795-3860</td>
<td>Alamitos Shale</td>
</tr>
<tr>
<td>3982</td>
<td>&quot;N&quot;</td>
</tr>
<tr>
<td>4017</td>
<td>&quot;T&quot;</td>
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</table>

Commenced producing: Dec. 14, 1937
Flowing/gas/pumping: 1st 4 days

<table>
<thead>
<tr>
<th>Clean Oil bbl. per day</th>
<th>Gravity Clean Oil</th>
<th>Per Cent Water including emulsion</th>
<th>Gas Mcf. per day</th>
<th>Tubing Pressure</th>
<th>Casing Pressure</th>
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<td>864</td>
<td>23.8</td>
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<td>929</td>
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Initial production: 17
Production after 40 days

Casing Record (Present Hole)

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<tr>
<th>Size of Casing (A. P. I.)</th>
<th>Depth of Shoe</th>
<th>Top of casing</th>
<th>Weight of Casing</th>
<th>New or Second Hand</th>
<th>Seamfree or Lapweld</th>
<th>Grade of Casing</th>
<th>Size of Hole Casing landed in</th>
<th>Number of Sacks of Cement</th>
<th>Depth of Cementing if through perforations</th>
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<tr>
<td>15-3/8</td>
<td>759</td>
<td>Surface</td>
<td>45.97#</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;G&quot;</td>
<td>17&quot;</td>
<td>350</td>
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<tr>
<td>8-5/8</td>
<td>4016</td>
<td>Surface</td>
<td>32&amp; &amp; 36#</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;G&quot;</td>
<td>12-1/4&quot;</td>
<td>400</td>
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<tr>
<td>6-5/8</td>
<td>4106</td>
<td>3091</td>
<td>26#</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;G&quot;</td>
<td>7-5/8&quot;</td>
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Perforations

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<tr>
<th>Size of Casing</th>
<th>From</th>
<th>To</th>
<th>Size of Perforations</th>
<th>Number of Rows</th>
<th>Distance Between Centers</th>
<th>Method of Perforations</th>
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<tr>
<td>6-5/8</td>
<td>4016</td>
<td>4106</td>
<td>120 mesh</td>
<td>18</td>
<td>6</td>
<td>Kobe</td>
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</table>

Electrical Log Depths: Schlumberger from 759 to 4104.

(Attach Copy of Log)
### FORMATIONS PENETRATED BY WELL

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<tr>
<th>DEPTHTO</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>DESCRIPTION</th>
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<td>(See core record)</td>
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</table>

**Note:** The description of formations includes sand, gravel, shale, and shales, as well as specific details about the thickness and recovery of each formation. The log and core record of the oil or gas well is provided by the Union Oil Company of California for the field Long Beach. The well number is OIL OPERATORS 2, located in Section 18, Township 4-S, Range 13-W, 2S, 3E, B & M.
**State of California**  
**Department of Natural Resources**  
**Division of Oil and Gas**  

**Log and Core Record of Oil or Gas Well**

**Operator:** Union Oil Company of California  
**Field:** Long Beach  
**Well No.:** Oil Operators No. 2  
**Sec., T., R., SB:** 13, 4-S, 13-W, SB  
**B. & M.:**

**Formations Penetrated by Well**

<table>
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<th>Depth to</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
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<tr>
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<td>5480</td>
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**Description:**
- Shale and sand
- Sand and shale
- Sand and hard shale
- Shale (Note: see supplementary sheet rec'd. 3/20/42 for core)
- Sand and shale taken between 4800-4802

**Remarks:**
- No cores taken.
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER SIZE &amp; TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL REC.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
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<tbody>
<tr>
<td>12-3</td>
<td>1</td>
<td>7-5/8&quot; Soil</td>
<td>3966</td>
<td>3983</td>
<td>12.0</td>
<td>12.0</td>
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<td></td>
<td></td>
<td>Firm to hard, fine to medium gray sand. Streak of brown shale 4.3 from top. Dip 25°</td>
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<td>7-5/8&quot; Soil</td>
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<td>4001</td>
<td>13.0</td>
<td>6.9</td>
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<td>1.4</td>
<td>0.2</td>
<td>Hard dark brown shale, sand in spots. Fractures of 35° and 37°. Soft fine brown oil sand. Good odor. Hard dark brown shale. Top 0.2 badly fractured.</td>
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<td>0.8</td>
<td>0.3</td>
<td>4.3</td>
<td>Soft fine brown oil sand. Hard dark brown silt shale inclusions of fine brown oil sand in bottom 0.7. Firm soft fine brown oil sand. Hard dark brown sandy shale</td>
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<td>Firm soft fine brown oil sand. Firm to hard fine brown oil sand with streaks and inclusions of hard brown shale.</td>
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<td>Firm soft fine brown oil sand. Firm soft fine brown oil sand. Firm soft fine brown oil sand. Hard dark brown shale.</td>
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<td>7.6</td>
<td>Firm to hard fine brown oil sand with streaks and inclusions of hard brown shale.</td>
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<td>5.2</td>
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<td>Firm, soft, fine to medium brown oil sand. Good odor and dark amber cut. Hard dark brown shale.</td>
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<td>2.8</td>
<td>3.1</td>
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<td>Firm soft medium to coarse brown oil sand. Good odor and dark amber cut.</td>
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<td>Firm fine brown oil sand with inclusions of hard brown shale. Good odor and dark amber cut.</td>
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<td>Firm soft fine to medium brown oil sand. Good odor and dark amber cut.</td>
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<td>Firm soft coarse brown oil sand. Good odor and dark amber cut.</td>
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<td>Firm soft fine brown oil sand. Good odor and dark amber cut.</td>
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<td>Firm soft medium to coarse brown oil sand. Good odor and dark amber cut.</td>
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<td>Hard calcareous sandstone shell</td>
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<td>Firm soft fine dark brown argillaceous oil sand, partings of dark brown shales</td>
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<td>Fine grayish-brown oil sand, light amber cut</td>
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<td>Hard brown silty shale with inclusions of fine gray sand, streaks of fine brown oil sand, fracture of 25° &amp; 26°</td>
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<td>Hard dark brown sandy shale with streaks of fine brown oil sand, fracture of 24°</td>
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**Angle of Hole:**

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**Elevation:**

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<th>ELEVATION</th>
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<td>200</td>
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<tr>
<td>Date</td>
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Total depth 4105 ft.
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T.1-33546

Los Angeles, Calif. December 27, 1937.

Mr. Ed. Jussien, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS" 2, Sec. 13, T. 4 S., R. 13 W., S.B., B & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on December 10, 1937. Mr. F. C. Stole designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present R. W. Rampton, Engineer, and J. Lewish, Toolpusher.

Location of water tested and normal fluid level not determined.

Depth and manner of water shut-off:

1. 2053 ft. of 5-5/8 in. 32 lb. cement was in shale formation.

2. 1963 ft. of 5-5/8 in. 36 lb. cement by casing method.

Victor oil well and cement by casing hole.

Water string was landed in 12-in. rotary hole.

Casing record of well 13-3/8" cement. 759 ft. 8-5/8" as above.

Reported total depth of hole 4031 ft. Hole bridged from xx ft. to xx ft. Hole cleaned out to 4021 ft. for this test.

At time of test depth of hole measured xx ft. and bailer brought up sample of xxxxxxx

At xx ft. oil bailed to xxxxx ft., drilling fluid bailed to xxxxx ft.

At xx ft. top of oil found at xxxxx ft., top of fluid found at xxxxx ft.

THE INSPECTOR ARRIVED AT THE WELL AT 9:15 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. No casing test was made.

2. 27" of set cement was drilled out of the 8-5/8" casing (equivalent to 8 sacks).

3. The Johnston tester was run into the hole on 4" drill pipe.

4. The wall packer was set at 4005 ft.

5. The tester valve was opened at 8:51 a.m. and remained open for 33 minutes. During this interval there was a medium air blow for 4 minutes, a gas blow by heads for 15 minutes and a light blow for the remaining 11 minutes.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 40" of medium drilling fluid and 1890 lb. of oil and gas was found in the drill pipe above the tester, equivalent to 0.6 and 27.0 bbl.

2. The recording pressure bomb chart showed that the tester valve was open for 33 minutes. The test was completed at 11:40 a.m.

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy

cc: H. E. Winter
Long Beach
FCS: OH
629 South Hill Street
Los Angeles, California
November 24, 1937.

Union Oil Company of California,
Santa Fe Springs, Calif.

Gentlemen: Attention Mr. Henry E. Winter.

This will acknowledge receipt of and thank you for your letter dated November 22, 1937, giving the correct elevation and location of your well No. "Oil Operators" 2, Sec. 13, T. 4 S., R. 13 W., S. E. 1/2 & N., Long Beach field, as follows:

Elevation: 56.97' U. S. G. S.

Location: 523 ft. westerly along the center line of Dixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°.

Our records have been corrected accordingly.

Yours truly,

[Signature]

B:EMS
Deputy Supervisor.

CC - Mr. R. D. Bush (2)
Long Beach
Union Oil Company of California

PRODUCERS AND REFINERS OF
CRUDE OIL, FUEL OIL, ROAD OIL AND ASPHALT,
UNION GASOLINE, KEROSENE AND DISTILLATE,
'RED LINE' LUBRICATING OILS AND GREASES.

Santa Fe Springs, Calif. Nov. 22, 1937

Mr. H. Huguenin, Depty. Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

RE: Oil Operators #2

Dear Sir:

The elevation of the Union Oil Company
well "Oil Operators #2" at Long Beach (Sec. 13, 4S, 13W)
is 56.97 U.S.G.S.

The corrected location is as follows:

523 ft. Westerly along the center line of
Bixby Road projected from the center line
of the Pacific Electric Railway Right of Way
and thence 45 ft. Southerly at 90°

Our records have been corrected
accordingly.

Very truly yours,

[Signature]

District Engineer.
No. T 1-33385

Los Angeles, Calif. November 22, 1937

Mr. Ed Jusen, Jr.,

Los Angeles,

Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. C. Stoltz, representative of the supervisor, on November 17, 1937. There was also present H. E. Winter, Engineer, and J. Kewish, Drilling Foreman.

Casing Record: 13-3/8" cas. 759'. T. D. 761'. Junk --

The operations were performed for the purpose of demonstrating that the known surface waters are adequately protected.

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 3:00 P. M. AND MR. WINTER REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 761'.
2. 766' of 13-3/8" - 4 9/97 lb. casing was run into the hole to 759'.

THE INSPECTOR NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 759' with 350 sacks of Monolith Velo cement.
2. The cement was displaced with 674 cubic feet of mud fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:15 p. m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT the known surface waters are adequately protected.

cc- H. E. Winter
Long Beach
FOS: G

R. D. BUSH
State Oil and Gas Supervisor

By ___________________________ Deputy
Report on Proposed Operations

No. P. 1-31536.

Los Angeles, Calif. November 4, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS" 2,

Section 13, T. 14 S., R. 13 W., S.E. B. & M., Long Beach Field, Los Angeles County, dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 560' Wly along center line of San Antonio from the center line of Del Mar and thence 115' Nly at right angles. The elevation of the derrick floor above sea level will be determined later (Approx. 55') We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>Weight</th>
<th>New or Second Hand</th>
<th>Depth Landed or Cemented</th>
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<tbody>
<tr>
<td>13-3/8</td>
<td>46</td>
<td>New</td>
<td>700' Cmtd.</td>
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<tr>
<td>8-5/8</td>
<td>36</td>
<td>New</td>
<td>4000 Cmtd.</td>
</tr>
<tr>
<td>6-5/8 Perforated liner</td>
<td>New</td>
<td>4100</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the well and the column of mud fluid shall be maintained at all times to the surface, particularly while pulling the drill pipe.

(b) Adequate blow-out prevention equipment shall be provided and ready for operation at all times.

2. Any hole to be sidetracked at any time during the drilling of this well shall be completely filled with cement.

3. The formations to be left back of the 5-5/8" casing shall be mudded by open circulation until the loss is not more than 5 bbl. per hr.

4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:

(a) The cementing of the 13-3/8" surface casing.

(b) Final mudding operations before cementing the 8-5/8" casing.

(c) A test of the effectiveness of the 8-5/8" shut-off.

cc- H. E. Winter
Long Beach
WJC:OH

* 523 ft. westerly along the center line of Dixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. southerly at 90°. (Correction letter 11-24-37)

R. D. BUSH
State Oil and Gas Supervisor

By Deputy
Notice of Intention to Drill New Well
This notice must be given before drilling begins

General Exploration Co.  
Santa Fe Springs, Cal.  Oct. 28, 1937

Mr. E. Huguenin,  
Deputy State Oil and Gas Supervisor  
Los Angeles, Cal.  PI-315-36

Dear Sir:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. #2 Oil Operators, Sec. 13, T. 4-S, R. 13-W, S.B., B. & M., Long Beach Oil Field, Los Angeles County. The lease consists of 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 50° 11' Wly along center line of San Antonio from the center line of Del Mar and thence 11° 16' Wly at right angles.

The elevation of the derrick floor above sea level is (approx. 56.97 ft.) 45 ft. southerly at 90°. Correction letter 11-24-37.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing, Inches</th>
<th>Weight, Lb. Per Foot</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>46</td>
<td>New</td>
<td>700'</td>
<td>Ctd.</td>
</tr>
<tr>
<td>8-5/8</td>
<td>36</td>
<td>New</td>
<td>4000</td>
<td>Ctd.</td>
</tr>
<tr>
<td>6-5/8 Perforated liner</td>
<td></td>
<td>New</td>
<td>4100</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less.

Respectfully yours

Address  
Santa Fe Springs, Calif.

Telephone number  Whittier 426-87

UNION OIL COMPANY OF CALIFORNIA  
(Name of Company or Operator)

By  Henry C. Winter  
District Engineer

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED
SCHLUMBERGER ELECTRICAL LOGS

COMPANY: Union Oil Co.  DATE: 12/2/37
FIELD: Long Reach  LOCATION:
WELL: Calipatria 12  ELEVATION:

Casing shoe depth: Driller 750 ft. Started run 10:00 a.m.
Schlumberger 12:45 a.m.

Bottom depth: Driller 3350 ft. Time well occupied by outfit 2 1/2 hrs.

Max. depth reached by lower elect 5917 ft. Time waiting at well none hrs.

Max. footage measured (for S.P.) 7000 ft. Mileage incurred by run 15 M.

Footage missed 36 ft. Total time incurred by run 3 hrs.

MUD CHARACTERISTICS

NATURE: Artificial  VISCOSITY:  LEVEL:
DENSITY: 75  RESISTIVITY: O-

DIAMETER OF HOLE
12.1"

REMARKS
Max. cal. .80"

8-2

Witnessed By: T. R. Inter

OBSERVERS: R. T. F. H. P. T.

<table>
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<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG</th>
<th>OHMS, M/LM</th>
<th>POROSITY LOG</th>
<th>MILLivolTS</th>
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<td>0</td>
<td>15</td>
<td>30</td>
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<td>150, 150</td>
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</table>

Graphical representation of resistivity and porosity logs.
Casing shoe depth: Driller 4016 ft. Started run 9:00 a.m. Schlumberger 4016 ft. Finished run 11:00 a.m.

Bottom Depth: Driller 4105 ft. Time well occupied by outfit 2 h. Max. depth reached by lower elect 4104 ft. Time waiting at well -- h. Max. footage measured (p or S.P.) 72 ft. Mileage incurred by run 10 M. Footage missed 1 ft. Total time incurred by run 3 h.

MUD CHARACTERISTICS
NATURE natural VISCOSITY no sample LEVEL
DENSITY 72 RESISTIVITY no sample

DIAMETER OF HOLE
7-5/8" 1-275

REMARKS
Device: 20"

SCHLUMBERGER ELECTRICAL LOGS
COMPANY UNION OIL CO. DATE 12/4/37
FIELD W. Long Beach LOCATION:
WELL Oil Operators #2 ELEVATION:

Casing shoe depth: Driller 759 ft. Started run 4:15 p.m. Schlumberger ft. Finished run 5:45 p.m.

Bottom Depth: Driller 4034 ft. Time well occupied by outfit 1 1/2 h. Max. depth reached by lower elect 4032 ft. Time waiting at well none h. Max. footage measured (p or S.P.) 173 ft. Mileage incurred by run 15 M. Footage missed 2 ft. Total time incurred by run 3 h.

MUD CHARACTERISTICS
NATURE Natural VISCOSITY 24 LEVEL
DENSITY 75 RESISTIVITY 3.4
SCHLUMBERGER ELECTRICAL LOGS

COMPANY: UNION OIL CO. DATE: 12/2/37

FIELD: Long Beach LOCATION:

WELL: Oil Operators #2 ELEVATION: ft.

Casing shoe depth: Driller 750 ft. Started run 10:00 a.m.
Schlumberger ft. Finished run 12:45 a.m.

Bottom Depth: Driller 3856 ft. Time well occupied by outfit 23.2 h.
Max. depth reached by lower elect 3857 ft. Time waiting at well none h.
Max. footage measured (p or S.P.) 3068 ft. Mileage incurred by run 15 M.
Footage missed 2 ft. Total time incurred by run 32.6 h.

MUD CHARACTERISTICS

NATURE: Natural VISCOSITY: LEVEL
DENSITY: 75 RESISTIVITY: 5.8

DIAMETER OF HOLE

12.1"

REMARKS

Device: 20"

Witnessed By: Mr. Winter

OBERVERS: E. Pinciushek

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG ohms. m²m</th>
<th>POROSITY LOG millivolts</th>
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<tr>
<td>0</td>
<td>15</td>
<td>30</td>
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</tbody>
</table>
**Pacific Energy Resources Ltd.**

**WELL:** Oil Operators #2  
**FIELD:** Oil Operators 2  
**COMPANY:** Union Oil Co.  
**FLING NO.:** C-8-134  
**COUNTY:** Los Angeles  
**STATE:** Calif.  
**ELEV.:** 57

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<td>4016'</td>
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<tr>
<td>Total depth</td>
<td>5235'</td>
<td>5450'</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Depth rchd.</td>
<td>5235'</td>
<td>5477'</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ft. Meas.</td>
<td>1129'</td>
<td>242'</td>
<td></td>
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<tr>
<td>Mud Nat.</td>
<td>Natural</td>
<td>Chemical</td>
<td></td>
<td></td>
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<tr>
<td>Dens</td>
<td>76#</td>
<td>79#</td>
<td></td>
<td></td>
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<tr>
<td>Visc.</td>
<td>40</td>
<td>40</td>
<td></td>
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<tr>
<td>Res.</td>
<td>6.3 @ 82°F</td>
<td>5.5 @ 87°F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Temp.</td>
<td>160°F</td>
<td>175°F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meas. from Top Table</td>
<td>2000#</td>
<td>1800#</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tension</td>
<td>2 hrs.</td>
<td>1 hr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rig. Time</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mileage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observer</td>
<td>V. Fant</td>
<td>W. Dale</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Witnessed by:** Mr. Winter

**DIAMETER OF HOLE**  
7-5/8"

**REMARKS**  
Standard Device 3rd Curve:  
Long Device 3rd Curve:

**RESISTIVITY**  
- NORMAL CURVE  
- THIRD CURVE

**SELF-POTENTIAL**  
100 millivolts
REPORT OF PROPERTY AND WELL TRANSFER

Field or county
Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.

Former owner
Pacific Energy Resources

Operator code
P0250

Date
7/10/2007

Name and location of well(s)
See Attachment

Description of the land upon which the well(s) is (are) located
See Attachment

Date of transfer,
sale, assignment,
conveyance, or
exchange
06/14/2007

New owner
Pacific Energy Resources Ltd.

Operator code
P0250

Type of organization
Partnership

Address
111 West Ocean Blvd
Long Beach, CA 90802

Telephone No.
(562) 628-1526

Reported by
OG39A Both Signed

Confirmed by

New operator new status
(status abbreviation)
PA

Request designation of agent
Darren Katic, Agent

Old operator new status
(status abbreviation)
NPI

Remarks
See Operator File

OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>PA - Producing Active</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPA - No Potential, Active</td>
<td>Form OGD121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI - Potential Inactive</td>
<td>Form OGD140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPI - No Potential, Inactive</td>
<td>New well cards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ab - Abandoned or No More Wells</td>
<td>Well records</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric logs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Production reports</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FORM AND RECORD CHECK LIST

Map and book
Notice to be cancelled
Bond status
EDP files
Computer Files
REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California
November 27, 1996

Steve Graner, President
NORTH SIDE OIL CORPORATION
P. O. Box 16007
LONG BEACH CA 90807

Your report of the plugging and abandonment of well Pacific Energy Resources/NWLBU 8-2, A.P.I. No. 037-09793, Section 13, T. 4S, R. 13W, S.B. B.& M., Long Beach Field, Los Angeles County, dated November 1996, received November 22, 1996, has been examined in conjunction with operations witnessed and records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

NOTES: 1. Surface plugging completed on 10-21-96.

2. Surface inspection made and approved 11-26-96.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By R. C. Manuel
For R. K. Baker, Deputy Supervisor

NO BOND REQUIRED

cc: Update
L.A. County Assessor
L.A. County Fire Prevention Bureau
Gary Jones, City of Signal Hill
Pacific Energy Resources

00159
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td></td>
<td>Producing - Oil</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td>11-22-96</td>
<td>Idle - Oil</td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
<td></td>
<td>Abandoned - Oil</td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
<td>Drilling - Idle</td>
</tr>
<tr>
<td>Sidewall Samples</td>
<td></td>
<td>Abandoned - Dry Hole</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>Producing - Gas</td>
</tr>
<tr>
<td>Date final records received</td>
<td></td>
<td>Idle - Gas</td>
</tr>
<tr>
<td>Electric Logs</td>
<td></td>
<td>Abandoned - Gas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gas - Open to Oil Zone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gas Storage</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERS CHECK LIST

1. Summary, History, & Core Record (dupl.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Directional Survey
13. Production
14. E Well on Prod., enter EDP
15. Surface Inspection

CLERICAL CHECK LIST

1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGD150b (Release of Bond)
5. Duplicate logs to archives
6. Notice of Records Due (F-OGD170)
7. EDP (F-OGD42A-1,2)
8. District Data Base
9. Update Center
10. Form OG159 (Final Letter)

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK

OGD2 (5/96)
History of Oil or Gas Well

Operator: NORTH SIDE OIL CORP.
Well: NWLBUS 8-2
A.P.I. No.: 037-09793
Date: November, 1996

Field: Wilmington
County: Los Angeles
Sec.13, T.4S, R.13W SB B & M.
Name: Steve Graner
Title: President

P.O. Box 16007, Long Beach, CA 90806
310/424-2451

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date
1996
10/7
MIRU. RIH with 1-1/2" C.T.. Tagged top of lines at 3948'. Tagged fill at 4071'. Bottom of lines at 5065'. POOH. Secured well. MO.

10/14
MIRU. Filled well with water. Pressured casing to 500psi and held for 10 minutes. RIH with 1-1/2" C.T. to 3946'. Unable to go deeper. POOH. Secured well.

10/15
MIRU. RIH with 1-1/2" C.T. to 3946'. Spotted 5 barrels water followed by 181 cf of cement. Estimated TOC at 3417'. POOH. Filled hold with water. Pressured up casing to 500psi and held for 5 minutes. Squeezed 8-1/2 cf away. Estimate TOC at 3442'.

10/16
MIRU. RIH with 1-1/2" C.T. Tagged TOC at 3400'. Mudded hole with 72% mud from 3400' to 2575'. POOH. Rigged up Primo wireline and shot cavity shot at 2575'. RIH with 1-1/2" C.T. to 2575'. Spotted 5 barrels water followed by 152 cf of cement. Estimate top at 2132'. POOH. Filled hole with water. Downsqueezed 11 cf with 550psi and held for 5 minutes. Estimate TOC at 2164'.

10/17
MIRU. RIH with 1-1/2" CT and tagged TOC at 2177'. Mudded hole with 133 barrels of 72% mud from 2177' to surface. POOH. Secured well.

10/19
MIRU. Cut 8-5/8" casing at 70'. MO. MIRU. RIH with 1-1/2" C.T. to 70'. Spotted 5 barrels water followed by 242 cf of cement. Cement to surfact. POOH. Cement top fell. Cement with 97 cf of cement to surface.

10/21
Welded steel plate on casing. Well abandoned.

OG103 (3/86/DWRR/5M)
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOThermal RESOURCES

REPORT ON OPERATIONS

Long Beach, California
November 22, 1996

Steve Graner, President
NORTH SIDE OIL CORPORATION
P. O. Box 16007
LONG BEACH CA 90807

Your operations at well Pacific Energy Resources/NWLBU 8-2, A.P.I. No. 037-09793, Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County, were witnessed on 10-21-96. Bill Fedasko, representative of the supervisor, was present from 1530 to 1600. There was also present Steve Graner, President.

Present condition of well: 13 3/8" cem 759'; 8 5/8" cem 4016' WSO, cav shot 2575', pulled fr 70'; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf 4018'-4055', 4118'-4228', 4640'-4700', @ int 4835'-4945', 5165'-5245', & 5345'-5395', collapsed 3980'±. TD 5480'. Plugged w/cem 5475'-5456', 5415'-5065', 3946'-3400', 2575'-2177', 70'-5'.

The operations were performed for the purpose of witnessing the plugging operations in the process of abandonment.

DECISION: APPROVED.

NOTE: The required Class II2M blowout prevention equipment was inspected and approved on 10-14-96.

DEFICIENCIES: None.

CONTRACTOR: Fleet Cementers, Inc.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By R.C. Manuel
For R. K. Baker, Deputy Supervisor
WULBU - 8-2
View: west, 10-21-96
Photo: Bill E. with R. Manuel
ION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator: Pacific Energy Resources
Well No.: NWLB 8-2
API No.: 0297-0793

Field: Long Beach, County: Los Angeles
Sec.: 13 T. 4 S. R. 15 W. S.B. & M.

Mr./Ms.: R. A. Isola, representative of the supervisor, was present from 1350 to 1600.

Casing record of well:
- 13 3/4" Cem. 759'; 8 5/8" Cem. 4016'; Std. 2575'
- 5 1/2" Cem. 2900'; 5.475' std. 4069' m.d. 4110'; 4220'; 4640'
- 4700'; 0.117 4135-4915'; Std. 5/15 5245'; 5345'; 5395';

The operations were performed for the purpose of:
- 5475-5456, 5415-5065 3946-5
- 2400, 2575-2177: 70'-5'

- The plugging cementing operations as witnessed and reported are approved.
- The location and hardness of the cement plug are approved.

Hole size: ___________ fr. ___________ to ___________ & ___________ to ___________.

<table>
<thead>
<tr>
<th>Size</th>
<th>Wt.</th>
<th>Top</th>
<th>Bottom</th>
<th>Date</th>
<th>MO-Depth</th>
<th>Volume</th>
<th>Annulus</th>
<th>Casing</th>
<th>Squeezed Away</th>
<th>Final Press.</th>
<th>Perfs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 5/8&quot;</td>
<td>32</td>
<td>0</td>
<td>4016'</td>
<td>10/16/96</td>
<td>5/15</td>
<td>18'/ft</td>
<td>15'</td>
<td>112'</td>
<td>152'9</td>
<td>6.5'</td>
<td>500'</td>
</tr>
<tr>
<td>5 1/2&quot;</td>
<td>19</td>
<td>3950'</td>
<td></td>
<td>10/14</td>
<td>94/ft</td>
<td>155/2</td>
<td>112'</td>
<td>191'7</td>
<td>550'</td>
<td>25'</td>
<td></td>
</tr>
</tbody>
</table>

Casing/tubing recovered:
- 5 1/2" shot/cut at 70', ___________ pulled fr. ___________.
- 5 1/2" shot/cut at ___________ pulled fr. ___________.

Junk (in hole):

Hole fluid (balled in) at ___________. Witnessed by ___________.

Mudding:
- PASS 10/16/96 51
- 72/ft 10/17 133

Cement Plugs:
- 5 1/2" collapsed (?) @ 3950'

Engr.:
- 2575# Hebein
- 5245# 10/16/96

Placing Witnessed:
- 10/15/96 18'/ft bg 3'/ft. 10 1200' R. Navi
- 10/19 239 y 170'

Top Witnessed:
- 10/15/96 18'/ft bg 3'/ft. 10 1200' R. Navi
- 10/16 1520' 1930 R. Navi
- 10/19 239 y 170'

OGD10 (12/94/GSR1/5M) Printed on recycled paper - willed tubing only in to 3946'
- 0 to 3946' (OKD by D.C.) - conventional rig.
DEFICIENCIES NOTED AND CORRECTED:

DEFICIENCIES NOTED AND TO BE CORRECTED:

UNCORRECTABLE DEFICIENCIES:

CONTRACTOR:

Fleet Cement, Inc
**BLOWOUT PREVENTION EQUIPMENT MEMO**

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation.

**DECISION:** The blowout prevention equipment and its installation on the 8 5/8" casing are approved.

**PROPOSED WELL OPNS:**
- **A:**
- **MACP:**
- **REQUIRED:**
- **BOPE CLASS:**

<table>
<thead>
<tr>
<th>CASING RECORD OF BOPE ANCHOR STRING</th>
<th>Cement Details</th>
<th>Top of Cement</th>
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<tbody>
<tr>
<td>Size</td>
<td>Weight(s)</td>
<td>Grade(s)</td>
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</table>

<table>
<thead>
<tr>
<th>BOP STACK</th>
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<tbody>
<tr>
<td>API Symb</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>A</td>
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<td>A</td>
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</table>

<table>
<thead>
<tr>
<th>ACTUATING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulator Unit(s) Working Pressure psi</td>
</tr>
<tr>
<td>Total Rated Pump Output gpm</td>
</tr>
<tr>
<td>Distance From Well Bore ft.</td>
</tr>
<tr>
<td>Accum. Manufacturer</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>CONTROL STATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold at accumulator unit</td>
</tr>
<tr>
<td>Remote at Driller's station</td>
</tr>
<tr>
<td>Other:</td>
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<table>
<thead>
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<th>EMERG. BACKUP SYSTEM</th>
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<td>1</td>
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<td>Other:</td>
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<table>
<thead>
<tr>
<th>TOTAL:</th>
</tr>
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<tbody>
<tr>
<td>( 1/5 ) gal.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>HOLE MONITORING EQUIPMENT</th>
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</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit Audible Type A</td>
</tr>
<tr>
<td>Pit Level Indicator Visual Class B</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
</tr>
<tr>
<td>Pit Level Recorder</td>
</tr>
<tr>
<td>Flow Sensor</td>
</tr>
<tr>
<td>Mud Totalizer</td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:**

OGD9 (892/GSR1/3M)
Your proposal to abandon well Pacific Energy Resources/NWLBU 8-2, A.P.I. No. 037-09793, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Northwest Extension area, -- pool, Los Angeles County, dated 9/12/96, received 9/12/96 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment equivalent to this Division's Class II2M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from 3918' to 3850'.
4. The cement plug proposed to be placed to 2410' shall extend to at least 2375' outside and inside the casing.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the placing, location and hardness of the cement plug from 5065' to 3850'.
   c. Witness the mudding of the hole.
   d. Witness the placing, location and hardness of the cement plug from 2575' to 2375'.
   e. Witness the placing, location and hardness of the cement plug from 70' to 6'.
   f. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:
1. This Division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

DEC:dc 11/1/96
cc: Update
     EDP
     Gary Jones/Signal Hill
     Pacific Energy Resources

NO BOND REQUIRED

Engineer: D. E. Curtis
Phone: 310/590-5311

William F. Guerard, Jr.
State Oil and Gas Supervisor

By R. K. Baker, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
STATE OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES  

Notice of Intention to Abandon Well  
File in Duplicate  

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES  

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well (North Side Oil Company 8-2) API No. 037-09793, Sec 13, T. 4S, R. 13W, SB B & M, Long Beach Field, Los Angeles County, commencing work on October 10, 1996.

The present condition of the well is:

1. Total depth 5480'
2. Complete casing record, including plugs and perforations (present hole)

see over

3. Last produced 8/93 5 0 460

   (Date) (Oil, Mcf/D) (Gas, Mcf/D) (Water, B/D)

4. Last injected

   (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths):

5. Oil or gas shows
6. Stratigraphic markers
7. Formation and age at total depth
8. Base of freshwater sands 2225' 2250'

9. Is this a critical well according to the definition on the reverse side of this form?  
   ☑ Yes  ☒ No

The proposed work is as follows:

a/ MIRU, install and test BOPE  
b/ Cleanout to greatest possible depth  
c/ Cement from greatest possible depth to 3918'  
d/ Fill hole with 72% mud from TOC to 2450'  
e/ Shoot cavity shot @ 2575'  
f/ Cement from 2410'-2575' inside and outside of pipe  
g/ Fill hole with mud from TOC to surface  
h/ Cut and retrieve 8-5/8" casing from 70'  
i/ Cement from 70' to 6'  
j/ Weld plate on casing stub

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address    P O Box 16007  
Long Beach, CA  90807  
Telephone Number (310)  

North Side Oil Corp.  
By Steve Shaner, President  

OG108 (1/95/GSR15M) Printed on recycled paper.
CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

1. 300 feet of the following:
   (a) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (b) Any airport runway.

2. 100 feet of the following:
   (a) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (b) Any navigable body of water or watercourse perennially covered by water;
   (c) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (d) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgement or upon written request of an operator. This written request shall contain justification for such an exception.

2. 13-3/8" cmt @ 759'; 8-5/8" cmt @ 4016' (WSO); 5-1/2" cmt @ 5475' top @ 3950'; perf 4869' WSO; perf 4018′-5395'; perfs plugged 5065′-5415' and 5456′-5475′.
NORTH IDE OIL COMPANY
NWLBU 8-2
API No. 037-09793

13" 46°C
ctmt 350 sks
759

8 1/8"
32° 36'
cmt 400 sks

BFW 2225'
Top of cement-CSG - 2911'

3950' 4016' WSO

5 1/2"
cmt
4869' WSO

perf 4016' 5475'
5065'
squeezed

5475' 5475'
TD 5480'
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC. TRANS LONG BEACH NWLBU WELLS TO PACIFIC ENERGY
SEE OGD156 DATED 5-13-94
**DIVISION OF OIL AND GAS**

**CHECK LIST - RECORDS RECEIVED AND WELL STATUS**

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>3-6-84</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td></td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
<td></td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
</tr>
<tr>
<td>Sidewall Samples</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Date final records received</td>
<td></td>
</tr>
<tr>
<td>Electric logs:</td>
<td></td>
</tr>
</tbody>
</table>

**STATUS**

<table>
<thead>
<tr>
<th>STATUS</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing - Oil</td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Idle - Oil</td>
<td>Water Flood</td>
</tr>
<tr>
<td>Abandoned - Oil</td>
<td>Steam Flood</td>
</tr>
<tr>
<td>Drilling - Idle</td>
<td>Fire Flood</td>
</tr>
<tr>
<td>Abandoned - Dry Hole</td>
<td>Air Injection</td>
</tr>
<tr>
<td>Producing - Gas</td>
<td>Gas Injection</td>
</tr>
<tr>
<td>Idle - Gas</td>
<td>CO2 Injection</td>
</tr>
<tr>
<td>Abandoned - Gas</td>
<td>LPG Injection</td>
</tr>
<tr>
<td>Gas-Open to Oil Zone</td>
<td>Observation</td>
</tr>
<tr>
<td>Water Flood Source</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS**

**ENGINEER'S CHECK LIST**

1. Summary, History, & Core record (duplic.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production

**CLERICAL CHECK LIST**

1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

**UPDATE CENTER**

**RECORDS APPROVED**

**RELEASE BOND**

Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK

<table>
<thead>
<tr>
<th>RECORDS NOT APPROVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason:</td>
</tr>
</tbody>
</table>

OGD2 (12/80/DWR/5M)

LONG BEACH OFFICE - USE REVERSE SIDE
History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plug, perforation details, sidetracked junk, bailing tests and initial production data.

Date

2/14/84  SD @ 4085. Perf 4018-4055 w/4 jhpf.

2/15/84  Put on production.
Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 94309

Long Beach, Calif.
March 22, 1984

Your operations at well NWLBU 8-2
Sec.13, T48S, R13W, S.B. B & M.
were witnessed on 2-15-84
G. Muggelberg, Engineer
the supervisor was present from 0810 to 0820
representative of
Joe Rose, Agent

API No. 037-09793
Field, in Los Angeles County,
Long Beach

Present condition of well: 13-3/8" cem 761', 8-5/8" cem 4016' WSO; 5¼" cem 3950'-5475',
perf 4869' WSO, perf 4118'4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245'
& 5345'-5395'. TD 5480'. Plugged w/ cem 5456'-5475' & 5415'-5065'.

The operations were performed for the purpose of inspecting the blowout prevention equipment
and installation.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
Low pressure valve on kill line.

GM: mh

cc: Update

M. G. MEFFERD
State Oil and Gas Supervisor
Deputy Supervisor

V. F. Gaede
DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO
T 184-507


VISITS:  Date  Engineer  Time  Operator's Rep.  Title
1st  2-15-84  G. Muggenberg  0810 to 0820  Joe Rose  Agent
2nd  to

Casing record of well: 13 3/8" well; 7 7/8" cem; 761.9 ft.; 8 7/8" cem; 9018 ft. WSD; 5 7/8" cem; 3460 ft. 5475 ft, perf 4669 ft. WSD, perf 11 3/4" cem; 4238 ft. 4649 ft. 4700 ft., int 4925 ft. 4945 ft. Inter 8155 ft. 5245 ft. 5345 ft. 5395 ft. TD 5460 ft. Plugged w/ cem 5460 ft. 5475 ft. 5415 ft. 5085 ft.

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 8 3/8" casing are approved.

Proposed Well Opsns: alter casing
Hole size: fr. ___ to ___ psi
MPSP: ___ psi
to ___ & ___ to ___

REQUIRED BOPE CLASS: II 2/M

CASING RECORD (BOPE ANCHOR STRING ONLY)

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
</tr>
</thead>
</table>

Cement Details

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>a/b</th>
</tr>
</thead>
</table>

TEST DATA

| TEST | Casing | Annulus |

ACTUATING SYSTEM

<table>
<thead>
<tr>
<th>Accum. Unit(s) Wkg. Press.</th>
<th>psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
</tr>
<tr>
<td>Distance From Well Bore</td>
<td>ft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>gal.</td>
<td>psi</td>
</tr>
<tr>
<td>2</td>
<td>gal.</td>
<td>psi</td>
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</tbody>
</table>

CONTROL STATIONS

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<tr>
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</thead>
<tbody>
<tr>
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<td>gal.</td>
<td>psi</td>
</tr>
<tr>
<td>2</td>
<td>gal.</td>
<td>psi</td>
</tr>
</tbody>
</table>

EMERG. BACKUP SYST.  Press. Wkg. Fl.

<table>
<thead>
<tr>
<th>No.</th>
<th>Sz. (in.)</th>
<th>Rated Press.</th>
</tr>
</thead>
</table>

AUXILIARY EQUIPMENT

<table>
<thead>
<tr>
<th>Connections</th>
<th>No.</th>
<th>Sz. (in.)</th>
<th>Rated Press.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill-Up Line</td>
<td>2</td>
<td>2000</td>
<td></td>
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<tr>
<td>Kill Line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td>1</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Check Valve(s)</td>
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<tr>
<td>Auxil. Pump Connec.</td>
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<tr>
<td>Choke Line</td>
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<tr>
<td>Control Valve(s)</td>
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<td>2000</td>
<td></td>
</tr>
<tr>
<td>Pressure Gauge</td>
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<tr>
<td>Adjustable Choke(s)</td>
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<tr>
<td>Bleed Line</td>
<td></td>
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<tr>
<td>Upper Kelly Cock</td>
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</tr>
<tr>
<td>Lower Kelly Cock</td>
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<tr>
<td>Standpipe Valve</td>
<td></td>
<td></td>
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<tr>
<td>Standpipe Pressure Ga.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pipe Safety Valve</td>
<td>2 7/8</td>
<td>2000</td>
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<tr>
<td>Internal Preventer</td>
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HOLE FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Alarm</th>
<th>Class</th>
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<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>Aud. Vis.</td>
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<tr>
<td>Pit Level Indicator</td>
<td>B</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td></td>
</tr>
<tr>
<td>Pit Level Recorder</td>
<td></td>
</tr>
<tr>
<td>Flow Sensor</td>
<td></td>
</tr>
<tr>
<td>Mud Totalizer</td>
<td>C</td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:

Hole Fluid Type  Weight  Storage Pits

O&G09 (3/B3/DWRB/3M)
DEFCICIENCIES—TO BE CORRECTED

None

DEFCICIENCIES—CORRECTED

1. Low pressure valve on fill line

CONTRACTOR

Graner Oil Co.
PERMIT TO CONDUCT WELL OPERATIONS

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 93309

Long Beach
February 8, 1984
California

Your proposal to alter casing in well NWLBU 8-2
A.P.I. No. 037-09793, Section 13, T. 4S, R. 13W, S.B., B. & M., Long Beach field, Northwest Extension area, Alamitos pool, Los Angeles County, dated __________ received 1-31-84 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II2M requirements, or better, shall be installed and maintained in operating condition.

2. Well killing fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

3. This division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.

4. THIS DIVISION SHALL BE NOTIFIED TO INSPECT THE INSTALLED BLOWOUT PREVENTION EQUIPMENT PRIOR TO COMMENCING DOWN-HOLE OPERATIONS.

NOTE: A crew drill may be required at the time of the blowout prevention equipment inspection.

RCM: mh

cc: Update

BLANKET BOND

Engineer Richard C. Manuel
Phone (213) 590-5311

M. G. MEFFERD, State Oil and Gas Supervisor

By V. F. Saede, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (9/83/GSR1/5M)
DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well NWLBU 8-2, API No. 037-09793, Sec. 13, T. 44S, R. 13W, SB. B. & M., Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth 5480

2. Complete casing record, including plugs and perforations
   8-5/8 @4016, 5-1/2 3950-5475, 13-7/8 @759
   Perf 5165-5205, 5220-5245, 5345-5395 Cmt plug 5415-5065
   Perf 4640-4700, 4835-4845, 4870-4945
   Perf 4118-4228, sand fill @4306 (May, 1967)

3. Present producing zone name Alamitos; Zone in which well is to be recompleted Alamitos

4. Present zone pressure ± 1200 psi; New zone pressure ± 1200 psi

5. Last produced 7/67 (Date) 16 (Oil, B/D) 1000 (Water, B/D) 0 (Gas, Mcf/D)
   Last injected not assigned (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure, psig)

The proposed work is as follows:

1. Check btm-clean out sand to below 4100.
2. Perf 4018-4055
3. POP.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 4200 Easton Drive #16
          (Street)
Bakersfield, Calif. 93309
          (City) (State) (Zip)
Telephone Number (805) 323-4118

Petro Resources, Inc.
          (Name of Operator)
By Joe D. Rose
          (Print Name) (Signature) (Date)
REPORT OF PROPERTY AND WELL TRANSFER

<table>
<thead>
<tr>
<th>Field or county</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Beach</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Former owner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Exploration &amp; Production Co.</td>
<td>June 15, 1983</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name and location of well(s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NWLBU 5-1 (037-09795)</td>
<td>NWLBU 8-1 (037-09792)</td>
</tr>
<tr>
<td>NWLBU 5-2 (037-00397)</td>
<td>NWLBU 8-2 (037-09793)</td>
</tr>
<tr>
<td>NWLBU 5-3 (037-09796)</td>
<td>NWLBU 8-3 (037-06496)</td>
</tr>
<tr>
<td>NWLBU 5-4 (037-09797)</td>
<td>NWLBU 8-4 (037-06415)</td>
</tr>
<tr>
<td>NWLBU 6-1 (037-09788)</td>
<td>NWLBU 8-7 (037-22512)</td>
</tr>
<tr>
<td>NWLBU 6-2 (037-09789)</td>
<td>NWLBU 9-2 (037-13525)</td>
</tr>
</tbody>
</table>

Description of the land upon which the well(s) is (are) located

<table>
<thead>
<tr>
<th>Date of transfer, sale, assignment, conveyance, or exchange</th>
<th>New owner</th>
<th>Type of organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1, 1983</td>
<td>Petro Resources, Inc.</td>
<td>Corp.</td>
</tr>
<tr>
<td></td>
<td>Address</td>
<td>Telephone No.</td>
</tr>
<tr>
<td></td>
<td>4200 Easton Drive, Suite 16</td>
<td>805/323-4118</td>
</tr>
<tr>
<td></td>
<td>Bakersfield, CA 94309</td>
<td></td>
</tr>
</tbody>
</table>

Reported by Letter from Sun Exploration & Production Co. dated 5-16-83.


<table>
<thead>
<tr>
<th>New operator new status (status abbreviation)</th>
<th>Request designation of agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Joe D. Rose, same address.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Old operator new status (status abbreviation)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td></td>
</tr>
</tbody>
</table>

Deputy Supervisor

V. F. Gaede

Signature

OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>PA - Producing Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPA - No Potential, Active</td>
</tr>
<tr>
<td>PI - Potential Inactive</td>
</tr>
<tr>
<td>NPI - No Potential, Inactive</td>
</tr>
<tr>
<td>Ab - Abandoned or No More Wells</td>
</tr>
</tbody>
</table>

FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form OGD121</td>
<td>CP</td>
<td>1-1-83</td>
<td>Map and book</td>
<td>137</td>
<td>7/11/83</td>
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<tr>
<td>Form OGD14</td>
<td>0</td>
<td></td>
<td>Notice to be cancelled</td>
<td>NONE</td>
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<td>New well cards</td>
<td>CP</td>
<td>1-1-83</td>
<td>Bond status</td>
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<tr>
<td>Well records</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric logs</td>
<td>CP</td>
<td>1-1-83</td>
<td>Conservation Committee</td>
<td>ERP</td>
<td>Update</td>
</tr>
<tr>
<td>Production reports</td>
<td>CP</td>
<td>1-1-83</td>
<td>L. A. Assessors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.  
1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California
Oct. 4, 1979

Mr. L. B. Carroll, Jr., Agent
Sun Oil Co.
23928 Lyons Ave.
Newhall, CA 91321

Dear Sir:

Your request dated March 19, 1979, relative to change in designation of well(s) in Sec. 13, T. 4S, R. 13W, S.B B. & M., Long Beach field, Los Angeles County, District No. 1, has been received; and in accordance with Section 3203, Public Resources Code, reading in part as follows:

"... The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

<table>
<thead>
<tr>
<th>Old Designation</th>
<th>API</th>
<th>New Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Oil Operators&quot;</td>
<td>037-09792</td>
<td>NWLBU 8-1</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-09793</td>
<td>NWLBU 8-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-06496</td>
<td>NWLBU 8-3</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>037-06415</td>
<td>NWLBU 8-4</td>
</tr>
<tr>
<td>&quot;Pool&quot;</td>
<td>037-09795</td>
<td>NWLBU 5-1</td>
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<td>&quot;&quot;</td>
<td>037-00397</td>
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<td>&quot;&quot;</td>
<td>037-09766</td>
<td>NWLBU 5-3</td>
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<tr>
<td>&quot;&quot;</td>
<td>037-09797</td>
<td>NWLBU 5-4</td>
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<td>&quot;Amebco&quot;</td>
<td>037-09788</td>
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<td>&quot;&quot;</td>
<td>037-09789</td>
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<td>037-09791</td>
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<td>037-00142</td>
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<td>&quot;&quot;</td>
<td>037-00393</td>
<td>NWLBU 9-6</td>
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RWS:sc

cc: Update Center EDP Conservation Committee

M. G. Mefferd
State Oil and Gas Supervisor

By: Richard W. Heald
Acting Deputy Supervisor
R. A. Ybarra
# REPORT OF PROPERTY AND WELL TRANSFER

<table>
<thead>
<tr>
<th>Field or county</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Beach</td>
<td>1</td>
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</table>

**Former owner**

General Exploration Co.

**Name and location of well(s)**

<table>
<thead>
<tr>
<th>Section</th>
<th>Well Name</th>
<th>Well Number</th>
<th>Phone Number</th>
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<tr>
<td>Sec. 11-4S-13W</td>
<td>&quot;Dominguez&quot; 2-10</td>
<td>(037-11859)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Amebco&quot; 1</td>
<td>(037-09788)</td>
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<tr>
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<td>&quot;Amebco&quot; 2</td>
<td>(037-09789)</td>
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<td>&quot;Flood Control&quot; 2</td>
<td>(037-13525)</td>
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<td></td>
<td>&quot;Flood Control&quot; 3</td>
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<td>&quot;Flood Control&quot; 4</td>
<td>(037-00392)</td>
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<tr>
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<td>&quot;Flood Control&quot; 5</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Oil Operators&quot; 1</td>
<td>(037-09792)</td>
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</tr>
<tr>
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**Date of transfer, sale, assignment, conveyance, or exchange**

Dec. 1, 1978

**New owner**

Sun Oil Company

**Address**

23928 Lyons Avenue
Newhall, CA 91321

**New operator**

Confirmed by

**Former operator**

**Type of organization**

Corporation

**Deputy Supervisor**

**Signature**

---

**OPERATOR STATUS ABBREVIATIONS**

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<tr>
<th>Status Abbreviation</th>
<th>Form or Record</th>
<th>Initials</th>
<th>Date</th>
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**FORM AND RECORD CHECK LIST**

- Map and notes
- No data to be sent
- Production records
- Conservation Committee Update Center

---

**Signature**

M. B. Albright
May 21, 1976

Mr. Robert L. Graves
GENERAL EXPLORATION CO.,
4021 N. Pacific Place
Long Beach, California 90806

Dear Sir:

On May 20, 1976, Mr. G. W. Stark, our representative met with Bob Grey, your representative, to witness that one support piling was cut 20 feet below ground level. The Division approves of this method of pile removal if the holes are filled with tamped earth.

Sincerely,

A. D. Stockton
Associate Oil and Gas Engineer

ADS:dr
Report of Property and Well Transfer

Field or County: Long Beach
Former Owner: Union Oil Co. of California
Description of Property: Sec. 13, T. 4 S., R. 13 W., S. 8, E. & N.

List of Wells: "Oil Operators" 1, "Oil Operators" 2, "Oil Operators" 3 and "Oil Operators" 4. ("Oil Operators" 1, idle; other wells are active)

Date of Transfer: January 1, 1961
New Owner: General Exploration Co. of California
Address: 750 Subway Terminal Building, 417 South Hill Street, Los Angeles 13, Calif.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)

New Operator New Status: PA
Old Operator New Status: No
Request designation of agent:

Remarks:

Cc: Mr. E. H. Kusser
Prod. Dept.
Conservation Committee

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LEGEND

PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells

Note: If Transfer Does Not Change Overall Status Enter "No Change"
Form 10

Date Received 11-19-59

Elec. Log Radio Log

Direct. Surv. Other Data

Location

Elevation

Prod. Repts.

RECEIPT FOR New Well Records

Subsequent Work

Well Summary

(100) Drillers Log

(101) Core Record

(103) History

Event Clerk

History Clerk

Elect. Log

Other

COMPLETED PRODUCING ON 10-27-59

ENGINEER

ABANDONED ON

BOND Blanket Release Date Elig. 150b

End Prem. year Release Requested Superseded

Aband. Redrill

HOLD BOND Reason

:

Deepen

Plug

Alter Csg.

Data Needed

Final Letter Eng. Abandon
### Casing Record

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### Remarks
- **Change:** DR-AFE 59359, Job 539
- **PROPOSED WORK:** Add perforations in the Alamitos zone.
- **PRODUCTION BEFORE REPAIR:** 7 gross - 6 net - 21.8" - 12.1% 
  - ZERO HOLE FOR THIS JOB: 1' above derrick floor.
- **Inglewood, California**

### Casing Record at Completion of Work:
- 1141.6-5/8' H-4128' incl. - 901' psv, pulled.
- 1525' 5-1/2' C 5475'. Splice test OK.
  - Bullet pf & plgd., 5345.52051', 5234-5245'.
  - Test holes 4869' OK.
  - Bullet pf 4640-4700', 4835-4845'.
  - 4870-4945'. Perf & Repf 4915-4945'.

- **Contractor:** Moved in and strung up 2 new tubing lines. Pulled rods and pump. Rigged to pull tubing. Could not get twist out of line. Strung 4 lines.
- **Fulled tubing. Strung in with 2-5/8" Cavins sand pump and found top of sand fill at 4995'. Ran in 4-1/2" impression block - stopped at 4995'. Tried to break off 8-5/8" production head - unable to do so.**
- **Gun perforated 5-1/2" casing from 4228-4118' with two 1/2" bullets per foot. Used 8-5 wire line equipment. Fluid level at start 4450' - at finish 1200'. Very good blow of gas. Had approximately 400' of sand fill from 4900' to 4500'. Cleaned out to 4880' with 2-5/8" Cavins sand pump going through bridge.**
- **Crew off.**
- **Run 2-5/8" Cavins sand pump and cleaned out sand from 4720' to 4780'. Laid down excess tubing. Ran tubing. Laid down excess rods. Ran rods and pump. Spaced pump. Loaded out tools. Fluid level at 700'.**

### Names of Drillers/Head Well Pullers:
- Terminal Drilling Co. - Contractor

**District Engineer**

- **Vaughn S. Myers**
Oil Operators #2

Long Beach

Los Angeles

13-3/8" C 759'10-5/8" C 4016' 60-50

Field 13 5/8" P 1105' Kne 190' P.S. Splice test 1525' 54" C 5475' Splice test

OK. Bullet pf & pig 5246' 5323' 5390' and 4969' Bullet pf 4118-4228, 4610-4700, 4835-4851, 4870'

(Note Ineffective Casing)

November 8, 1959

(PERIOD ENDING)

REMARKS 4945'. PF & repf 4915-4945'.

Spooled tubing line off of derrick. Loaded out tools. Contractor moved out.

PRODUCTION DATA

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COMPLETED PRODUCING ON 10-27-59
ABANDONED ON
Mr. C. F. Bowden
P. O. Box 7600
Los Angeles 54, California
Agent for UNION OIL COMPANY OF CALIFORNIA

Inglewood 3, Calif. October 21, 1959

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 2,
Section 13, T. 4 S, R. 13 W, S.B. & M., Long Beach Field, Los Angeles County,
dated Oct. 19, 1959, received Oct. 20, 1959, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE.
5-1/2" cem. 3950'-5475', perf. at intervals 5395' - 5165', perf. 4869', W.S.O.,
plugged with cement 5480'-5456', 5417'-5065'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5480' Plug 5065'
2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 4016' WSO
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd 5165'-5265', 5299-5245', 5345-5395'.
   Test holes 4869' OK
   Bullet pf 4640-4700', 4835-4845', 4870-4945'.
   Repf. 4915-4945'.
3. Last produced. 6 B/D (Date) Sept. 1959 (Net Oil) 6 B/D (Gravity) 21.8° (Cut) 12.1°"

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing.
2. Check hole open to top of plug at 5065'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" casing from 4118'-4228' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 5065'.
6. Run rods and tubing.
7. Test on production."

DECISION
THE PROPOSAL IS APPROVED.

RC: omh
cc Vaughn S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor
By \\
Blanket Bond
19444 7-57 80M SPE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given before work begins; one copy only

Santa Fe Springs, Calif. October 19, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. OIL OPERATORS #2

Long Beach, Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 5480' Plug 5065'

2. Complete casing record.
   13-3/8" G 759'
   8-5/8" C 4016' WSO
   1141-6-5/8" H 4105' incl 90' pfs., pulled.
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd 5165-5265', -5220-5245', -5345-5395'.
   Test holes 4869' OK
   Bullet pf 4640-4700', 4835-4845', 4870-4945'.
   Repf. 4915-4945'.

3. Last produced. Sept. 1959

The proposed work is as follows:

1. Pull rods and tubing.
2. Check hole open to top of plug at 5065'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" casing from 4118-4228' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 5065'.
6. Run rods and tubing.
7. Test on production.

Union Oil Company of California

(Name of Operator)

By

Vaughn S. Siver, Division Engr.

Address One Copy of Notice to Division of Oil and Gas in District Where Well is Located
Date Received 10-21-53 Form 100 101 103
Elec. Log Radio Log
Direct. Surv. Other Data History
Location
Elevation Steno. Peco

ENGINEER
BOND Release Date Elig. 150b
HOLD BOND Reason

Data Needed

Final Letter Eng.

Unsequ.

OK LCW

Jul 11-53
Oil Operators #2
Long Beach
Los Angeles
SEC. 13 T. 4 S., R. 13 W., S.B. & M.

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CHARGE: B.R.-A.F.R. 51528 Job 240-1

PROPOSED WORK: Plug with cement to 5100'. Test for WSO at 4869'. Gun perf 4870-4945'. Test on production.

PRODUCTION BEFORE REPAIR: June, 1953 - 4 B/D Net - 23.8' - 53.0'

ZERO POINT for this job: 12' above derrick floor.

Casing Record at Start of Work:
T.O. 4205' Deepen 5480'
13-3/8' C 759' 8-3/8' C 4016' WSO.
341' 8-3/8' H 4205' 4ae-59' pef. Pulled
1355' 57' C 5475'. Splice test OK.
Bullet perf. 5165-5205', 5220-5245', 5345-5395'.

Casing Record at Completion of Work:
T.O. 5480'. Plug 5065'.
13-3/8' C 759'. 8-3/8' C 4016' WSO.
341' 8-3/8' H 5480' 5ae-99' pef. Pulled
1525' 57' C 5475'. Splice test OK.
Bullet perf & pld 5365-5395', 5220-5245', 5345-5395'. Test holes 4369' OK.

CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up.
Pulled rods and tubing.

CLEAN OUT AND PLUG
Bailed with 3-1/2" Cavins sand pump from 5390' to 5415'. Run 4-3/4" impression block to 5415'. Fluid level at 4060'. Dumped 16 sacks of Blue Diamond construction cement in 4 hours from 5415' to 5270'.

Found top of cement at 5263'. Fluid level at 3950'. Dumped 18 sacks of Blue Diamond construction cement. Fluid level 3930'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.

Found fluid level at 3905'.

WSO & PERFORATING
Run in with McCullough 3-1/2" o.d., 4 shot gun. Checked fluid level at 3920'. Shot four 1/2" hole at 4869'. Let set four hours (7:15 a.m. to 11:15 a.m.) No fluid rise. Water shut-off witnessed and approved by Division of Oil and Gas representative. Run in with 3-1/2" o.d., 20 shot gun and perforated 3-1/2" casing with four 1/2" holes per foot from 4945' to 4870'. Fluid level after perforating 3970'.

Checked fluid at 3840', fill at 5047'. Cleaned out sand with 3-1/3" Cavins sand pump from 5047' to 5065'. Ran tubing.


NAME OF DRILLERS/HEAD WELL BULLERS: CALIFORNIA PRODUCTION SERVICE, Contractor

VAUGHN S. MOYER, DISTRICT ENGINEER
**REPAIR REPORT**

**Prod. Hoist - Contract**

**September 26, 1953**

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- Pulled rods & tubing. Ran bailer.
- CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3680', no fill. 4 1/2" impression block went to bottom - 5065'.
- PERFORATING: Ran in with 4" o.d., Lane-Wells 1-2 gun perforator and checked fluid level at 3750' at 7:145 a.m. Shot four 1/2" holes per foot from 4915' to 4915'. Very light gas blow on 5th run. Fluid level at 2710' at 10:20 a.m. Perforated from 4345' to 4335' with light to medium gas blow. Perforated from 4700' to 1680' with light to moderate blow. Total holes shot = 400. Fluid level 3450' at 1:50 p.m. Net fluid rise 300'. No fill.
- Wall completed pumping in the Brown Zone.
**Oil Operators #2**

**Long Beach**

**Los Angeles**

**Oct 6, 1953**

**Union Oil Company**

**History of Oil or Gas Well**

**REPAIR REPORT**

**Prod. Hoist - Contract**

**Sec. 4**

**13-4-W S.B.**

**13-5/8**

**B & M.**

---

**NO.** | **TOURS** | **DATE** | **DEPTH** | **EFFECTIVE DEPTH** | **REMARKS**
---|---|---|---|---|---
**5480** | Plug 5065 | 

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<td>0</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>47</td>
<td>6</td>
<td>87.0</td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td>12</td>
<td>10</td>
<td>15.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>9</td>
<td>8</td>
<td>12.0</td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td>9</td>
<td>6</td>
<td>3.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>7</td>
<td>7</td>
<td>8.0</td>
<td></td>
<td></td>
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<td>24</td>
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<td>6</td>
<td>8.0</td>
<td></td>
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<tr>
<td>24</td>
<td>7</td>
<td>6</td>
<td>8.0</td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td>6</td>
<td>6</td>
<td>2.8</td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td>6</td>
<td>6</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**DIVISION OF OIL AND GAS**

**RECEIVED**

**OCT 21, 1953**

**LOS ANGELES, CALIFORNIA**

---

**NAME OF DRILLERS/HEAD WELL FURLOWS:**

California Production Service, Contractor

---

**Vangin S. Moyer,**

District Engineer
Report on Test of Water Shut-off (BAILING)

No. T. 153-1095

Los Angeles 15 Calif. September 16 1953

Mr. W S Eggleston

Los Angeles 17 Calif.

Agent for UNION OIL CO. OF CALIFORNIA

Dear Sir:

Your well No. "Oil Operators" 2, Sec. 13, T. 4 S., R. 13 W., S.B B. & M.

Long Beach Field, in Los Angeles County, was tested for water shut-off on September 8, 1953. Mr. W C Bradford, Inspector, designated by the supervisor, was present as prescribed in Sec. 3232 and 3233, Ch. 93, Stat. 1939; there were also present O Bradford, Moist Operator, N Barr, Helper.

Shut-off data: 5-1/2 in. 15 lb. casing was cemented at 5475 ft. on October 29, 1941 in 7-5/8 hole with 275 sacks of cement of which XXX sacks was left in casing. Casing record of well: 13-3/8" cem. 759'; 8-5/8" cem. 4016', W.S.O.; 5-1/2" cem. 3950'; 5475', perf. 5395'-5455', 5295'-5220', 5205'-5165', four 1/2" holes 4869', W.S.O., plugged with cement 5480'-5451' and 5417'-5065'

Reported total depth 5480 ft. Drilled with cement from 5480 ft. to 5065 ft. Cleaned out to 5065 ft. for this test.

Casing record data:

The inspector arrived at the well at 12:30 P.M. and Mr. Bradford reported the following:

1. The 5-1/2" casing was shot-perforated with four 1/2" holes at 4869'.
2. The fluid level was at 3910' at 7:00 a.m. on September 8, 1953.

The inspector noted that no fluid entered the well while standing 5-1/2 hr. for test.

The test was completed at 1:30 p.m.

The 5-1/2" SHUT-OFF AT 4869' IS APPROVED.

WCB:ES

cc Long Beach
Mr C F Bowden

R. D. BUSH, State Oil and Gas Supervisor

By [Signature], Deputy
No. T 153-1094

Los Angeles 15 Calif. September 16 1953

Mr. W.S. Balleston
1109 Union Oil Building Calif.
Los Angeles 17
Agent for UNION OIL CO OF CALIFORNIA

Dear Sir:

Operations at your well No. 
"Oil Operators" 2 Sec. 13 T. 4 S, R. 13 W., S.B, B. & M.,
Long Beach Field, in Los Angeles County, were witnessed by
G.O. Harenbush, Inspector

on September 4, 1953. There was also present
A Fowks, Foreman
W. Bradford, Well Fuller

Casing Record 13-3/8" cen. 759'; 8-5/8" cen. 4016'.

W.S.C: 5-1/2" cen. 3950'-5475', perf. 5395'-5345',
5245'-5220', 5205'-5165'; T.D. 5480', plugged with
cement 5480'-5465', 5417'-5065'.

Junk XXX

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5417' to 5065', in the process of plugging back.

The inspector arrived at the well at 3:00 p.m. and Mr. Fowks reported:

1. The hole could not be cleaned out below 5417' because of a hard sand plug.
2. On September 3 and 4, 1953, 34 sacks of cement was dumped into the hole beginning at 5417'.

THE INSPECTOR NOTED that the beiler could not be spudded below 5065', and brought up a sample of set cement.

The test was completed at 4:00 p.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 5065' ARE APPROVED.

GCR: BS

cc Long Beach

Mr. C F Bowden Div. Eng
Union Oil Co of California
9645 S Santa Fe Springs Rd
Whittier California

R. D. BUSH
State Oil and Gas Supervisor

By

Deputy
Mr. W. S. Eggleston
1109 Union Oil Building
Los Angeles 17, Calif.

Agent for UNION OIL CO OF CALIFORNIA

Dear Sir:

Your proposal to plug & alter casing Well No. 2, Section 13, T. 4 S, R. 13 W, S.B.B. & M., Long Beach Field, Los Angeles County, dated Aug. 20, 1953, received Aug. 21, 1953, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:
The hole is plugged with cement from 5480'-5456'.

THE NOTICE STATES
"The present condition of the well is as follows:

1. Total depth.
   4105' Deepen 5480'
2. Complete casing record.
   13-3/8' C 759'
   8-5/8' C 4016' W.S.O.
   10-1/2' L 4105', including 901 perforations. Pulled.
   1525' 5-1/2' C 5475', splice test O.K.
   Bullet perforate 5165-5205, 5220-5245, 5345-5395'.

3. Last produced. June 1953 4 B/D (Date) 22.8° (Net Oil) 83.0% (Gravity) (Out)

PROPOSAL
"The proposed work is as follows:
1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4870' to 4945'.
4. Test on production."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS
1. The location and hardness of cement plug at 5100'.
2. A test of the effectiveness of the 5-1/2' shut-off at 4859'.

JLM:OH

cc Long Beach

Mr. C. F. Bowden Div Engineer
Union Oil Co of California
9645 South Santa Fe Springs Rd
WHITTIER California

R. D. BUSH
State Oil and Gas Supervisor

By: F. L. Messers Deputy
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Whittier, Calif. August 20, 1953

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. Oil Operators #2

13, Sec., T., R., S.B., B. & M.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth.
   4105' Deepen 5480'

2. Complete casing record.
   13-3/8' C 759'
   8-5/8' C 1,016' W.S.O.
   1111-6-5/8' H 4105' including 90' perforations Pulled.
   1525' S-1/2' C 5475', splice test O.K.
   Bullet perforate 5105-5205, 5220-5245, 5345-5395'

3. Last produced. June 1953

   Date

   4 B/D
   (Net Oil)

   23.8'
   (Gravity)

   83.0%
   (Cut)

The proposed work is as follows:

1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4870' to 4945'.
4. Test on production.

UNION OIL COMPANY OF CALIFORNIA

(Name of Operator)

By

C. P. Borden, Division Engineer

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED.
DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR: UNION OIL COMPANY OF CALIFORNIA FIELD: LONG BEACH

Well No. OIL OPERATORS NO. 2, Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated January 11, 1938, was filed.

Date: December 5, 1941

Signature: [Signature]

Title: DIVISION ENGINEER

(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Rig up rotary to deepen. Pulled rods and tubing.

Cleaned out and deepened with oil circulation through 6-5/8" liner to 4115'. Took hold of liner and jarred out same.

Drilled to 4120' and set Eastman removable whipstock.

Directionally drilled hole to 5480'. Location at "S" point 463' north and 50' east, loss 31', location at 5480' is 439' north and 40' east, loss 31'.

Cemented 1525.19' of new 5-1/2" J-55 15-1/2#/Bethlehem seamless casing at 5475', including Burns plain liner hanger at top, 275 sacks of Slow Colton cement, Halliburton cementing company.

Found top of cement at 5245'. Cleaned out cement to 5456'. Bailed fluid from surface. Could not lower below 1050'.

Recemented splice with 100 sacks (50 Victor Hi-Temperature and 50 sacks Slow Colton), through drill pipe and Halliburton shoe squeeze tool set at 3911'. Displaced all of cement out of drill pipe. Final pressure 1375#. Cleaned out cement from 3905-3945'.
**DIVISION OF OIL AND GAS**

**Subsequent Work Report**

**Operator:** UNION OIL COMPANY OF CALIFORNIA  **Field:** LONG BEACH

**Well No.:** OIL OPERATORS NO. 2  **Sec.:** 13  **T.:** 4-S  **R.:** 13-W  **SB:** B & M

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated January 11, 1938, was filed.

**Signed:**

---

**Date:** December 5, 1941  
**Title:** DIVISION ENGINEER

(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Efficient Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-4</td>
<td>5480'</td>
<td>Plug 5456' Cleaned to 5456' (cement from 3945-3970'). Bailed fluid to 3000', stood eight hours. Splice test OK by Division of Oil and Gas. No rise.</td>
<td></td>
</tr>
<tr>
<td>11-6</td>
<td>5480'</td>
<td>Plug 5456' Replaced mud with oil and perforated 5-1/2&quot; casing with Lane-Wells gun, 1/2&quot; holes, as follows</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5165-5205', 81 holes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5220-5245', 49 holes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5345-5395', 100 holes</td>
<td></td>
</tr>
<tr>
<td>11-7</td>
<td>5313'</td>
<td>2-1/2&quot; tubing and rods and put on pump. Pumping unit broke after pumping 18 barrels of oil.</td>
<td></td>
</tr>
<tr>
<td>11-8</td>
<td></td>
<td>Repairing pumping unit.</td>
<td></td>
</tr>
<tr>
<td>11-9</td>
<td></td>
<td>Repairing pumping unit.</td>
<td></td>
</tr>
<tr>
<td>11-10</td>
<td></td>
<td>Repairing pumping unit.</td>
<td></td>
</tr>
<tr>
<td>11-11</td>
<td></td>
<td>Production - 116 net, 2.5% cut, P 15 hours</td>
<td></td>
</tr>
<tr>
<td>11-12</td>
<td></td>
<td>88 net, 23.8° gravity, 2.8% cut, P 24 hours</td>
<td></td>
</tr>
<tr>
<td>11-22</td>
<td></td>
<td>74 net, 25.4° gravity, 4.6% cut, P 24 hours</td>
<td></td>
</tr>
<tr>
<td>11-30</td>
<td></td>
<td>56 net, 25.4° gravity, 2.4% cut, P 24 hours</td>
<td></td>
</tr>
</tbody>
</table>

November Production - 1,317 barrels in 20 days.
**LOG AND CORE RECORD OF OIL OR GAS WELL**

**Operator**: UNION OIL COMPANY OF CALIFORNIA  
**Field**: LONG BEACH

**Well No.**: OIL OPERATORS NO. 2  
**Sec.**: 13  
**T.**: 4S  
**R.**: 13W  
**SB**: B. & M.

### FORMATIONS PENETRATED BY WELL

<table>
<thead>
<tr>
<th>DEPTH TO</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of Formation</td>
<td>4300</td>
<td></td>
<td></td>
<td>Took 3.8 core of oil stained, medium, coarse gray sand with a basket while fishing for pieces of a disc bit.</td>
</tr>
<tr>
<td>Bottom of Formation</td>
<td>4302</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40317

Los Angeles, Calif. November 7, 1941

Mr. W. S. Aggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 48S., R. 13W. S.B., B. & M.,
Long Beach Field, in Los Angeles County, were witnessed by

James T. Carriel, Inspector

on November 4, 1941. There was also present A. G. Hilton, Engineer,
and F. Dezarn, Drilling Foreman.

Casing Record 13-3/8" com. 759', 8-5/8" com. 4016',
W. S. 0.; 5-1/2" com. 3950'-5475', T. D. 5480',
plugged with cement 5450'-5456'.

The operations were performed for the purpose of demonstrating that no fluid has access to the well between the 8-5/8" and 5-1/2" casings,

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 6:10 P. M. AND MR. HILTON REPORTED THE FOLLOWING:
1. All of the 6-5/8" casing was pulled out of the hole.
2. A 7-5/8" rotary hole was drilled from 4105' to 5480'.
3. On October 29, 1941, 1525' of 5-1/2" - 15 lb. casing was cemented at 5475' with 275 sacks of Novol cement.
4. The 8-5/8" - 5-1/2" casing splice tested wet.
5. On November 2, 1941, the 8-5/8" - 5-1/2" casing splice was cemented with a Halliburton cementer set at 3911' with 100 sacks of Cement. It was estimated that 84 sacks of cement was forced away under a 1375 lb. final pressure.
6. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3905' to 3970' (equivalent to 16 sacks) and the casing was cleaned out to 5456'.
7. The fluid in the hole was bailed to 3000' at 10:00 a. m. on November 4, 1941.

THE INSPECTOR NOTED THE FOLLOWING:
1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open to 5456'.

The test was completed at 7:05 p. m.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT FLUID DOES NOT HAVE ACCESS TO THE WELL BETWEEN THE 8-5/8" AND 5-1/2" CASINGS.

By E. H. Musser Deputy

R. D. BUSH
State Oil and Gas Supervisor
Mr. W. S. Eggleston,

Los Angeles, Calif.

DEAR SIR:

Your proposal to deepen Well No. "OIL OPERATORS" 2, located in Section 13, T. 4 S., R. W., S.B. B. & M., Long Beach Field, Los Angeles County, dated Sept. 11, 1941, received Sept. 12, 1941, has been examined in conjunction with records filed in this office. Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:
"The present condition of the well is as follows:

Total Depth 4105
13-3/8 cmtd. 799
8-5/8 cmtd. 4016 O.K.
114- 6-5/8 landed 4105 inc. 90 perforated.
It is desired to deepen to the R S & T zones
Last Production August, 1941 - 1481 oil - 29224 water - 31 days."

PROPOSAL:
"The proposed work is as follows:
1. Pull 6-5/8 liner
2. Deepen well to 5450
3. Cement blank 5-1/2 liner 5450 to 3950
4. Test splice at 3950 by Division of Oil and Gas
5. Perforate R S & T zones at intervals
6. Test on production."

DECISION:
The proposal is approved provided that:
1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be provided and ready for use at all times.
3. Any hole to be sidetracked in any oil zone shall be filled with cement, if possible.
4. The formations to be left back of the 5-1/2" casing shall be mudded in a manner consistent with good drilling practice.
5. This division shall be kept informed of the results of tests, after each stage of perforating, and will designate any additional requirements at that time.

cc - H. W. Winter
Long Beach
ABH:0H

R. D. BUSH
State Oil and Gas Supervisor

By [Signature]
Deputy
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Santa Fe Springs, Calif. September 11, 1941

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, redrilling, pluging or altering casing at well No. Oil Operators #2

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

<table>
<thead>
<tr>
<th>Total Depth</th>
<th>4105</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8 cmtd.</td>
<td>759</td>
</tr>
<tr>
<td>8-5/8 cmtd.</td>
<td>4016 0.K.</td>
</tr>
<tr>
<td>114-6-5/8 landed</td>
<td>4105 inc. 90 perforated</td>
</tr>
</tbody>
</table>

It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1461 oil - 29224 water - 31 days

The proposed work is as follows:

1. Pull 6-5/8 liner
2. Deepen well to 5450
3. Cement blank 5-1/2 liner 5450 to 3950
4. Test splice at 3950 by Division of Oil and Gas
5. Perforate R S & T Zones at intervals
6. Test on production

Union Oil Company of California
(Name of Operator)

By [Signature]
Division Engineer

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES

Name of Operator

Address
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T. 4 S.
R. 19 W. 6.5, B. & M., as herewith enumerated by well numbers.

Logs:

History:

Core record:

Subsequent work:

R. D. BUSH, State Oil and Gas Supervisor

DUPLICATE

By:

DEPUTY

FORM 127. 40819 7-37 3M
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No.: OIL OPERATORS B, Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

Signed: [Signature]

Date: Jan. 11, 1939
Title: District Engineer

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-13</td>
<td>78</td>
<td>Spudded in and drilled with 17&quot; rotary bit.</td>
</tr>
<tr>
<td>11-17</td>
<td>761</td>
<td>Drilled with 17&quot; rotary bits to 761'. Cemented new 13-5/8&quot; 45.97# National seamless slipjoint casing at 760' with 360 ax Nenolith Velo cement. Cementing operations witnessed and approved by Stolz, of Division of Oil &amp; Gas.</td>
</tr>
<tr>
<td>11-19</td>
<td>1070</td>
<td>Found top of cement at 747'. Cleaned out cement and plugs and drilled ahead with 12-1/4&quot; bits.</td>
</tr>
<tr>
<td>12-2</td>
<td>3859</td>
<td>Drilled with 12-1/4&quot; bits to 3859'. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td>12-5</td>
<td>4034</td>
<td>Drilled with 12-1/4&quot; bits to 3965' and cored with 7-5/8&quot; core barrels to 4034'. Ran Schlumberger Survey. Reamed out core hole with 12-1/4&quot; bit to 4016'. Cemented 8-5/8&quot; 32# Grade &quot;G&quot; (1963') of 36# Grade &quot;G&quot; on bottom 8-thread round seamless casing at 4016' with 400 ax cement (200 ax Vistor oil well and 200 ax Vistor construction).</td>
</tr>
<tr>
<td>12-10</td>
<td>4075</td>
<td>Found top of cement at 3989'. Drilled over cement and plugs to 4016 and cleaned out to 4021. Water shut off test on 8-5/8&quot; casing at 4016 witnessed and approved by Stolz, of Division of Oil &amp; Gas. Drilled and cored to 4075'.</td>
</tr>
<tr>
<td>12-12</td>
<td>~4106</td>
<td>Cored to 4105. Ran Schlumberger Survey. Landed 114' of 8-5/8&quot; 25# Grade &quot;G&quot; casing at 4105', including 90' of 10-3/8 120-mesh Kobe perforated on bottom. Bailed to 1800' and well started flowing by heads.</td>
</tr>
<tr>
<td>12-14</td>
<td>4105</td>
<td>Bailed hole clean of mud and sand. Landed 3&quot; upset tubing at 3849'. Ran rods and installed pumping unit. Put well on pump 5:00 P.M. 12-14-37.</td>
</tr>
</tbody>
</table>
**History of Oil or Gas Well**

Operator: UNION OIL COMPANY OF CALIFORNIA  
Field: LONG BEACH

Well No.:  
Sec.: 13  
T.: 4-S  
R.: 13-W  
S.B.: B. & M.

Signed: Henry Winter

Date: Jan. 11, 1938  
Title: District Engineer

(Date)  
(Owner, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

### Production Test Data:

<table>
<thead>
<tr>
<th>Date</th>
<th>Gross</th>
<th>Net</th>
<th>Grav.</th>
<th>Cut</th>
<th>Status</th>
<th>Bean</th>
<th>T.P.</th>
<th>C.P.</th>
<th>Remarks</th>
</tr>
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<tbody>
<tr>
<td>12-14</td>
<td>391</td>
<td>203</td>
<td>22.8</td>
<td>48.0</td>
<td>F 10</td>
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<td></td>
<td></td>
<td>On pump 5:00 P.M.</td>
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<tr>
<td>12-16</td>
<td>673</td>
<td>612</td>
<td>7.8</td>
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<td>No daily gas</td>
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<tr>
<td>12-17</td>
<td>1757</td>
<td>1625</td>
<td>1.3</td>
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<td>Dec gas 18,573 Mcf</td>
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<tr>
<td>12-18</td>
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</table>
## LOG OF OIL OR GAS WELL

**Operator:** Union Oil Company of California  
**Field:** Long Beach

**Well No.:** Oil Operators 2  
**Sec.:** 13  
**T.:** 4-6  
**R.:** 13-7  
**S.B.:** B. & M.  
**Distance from point of centerline of Elksby Road project from the center of the Road:** 523'  
**Elevation:** 66.97

In compliance with the provisions of Chapter 718, Statutes of 1915, as amended, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

**Date:** Jan. 11, 1939  
**Signed:** [Signature]

**Engineer or Geologist:**  
**Superintendent:**

**Commenced drilling:** Nov. 12, 1937  
**Completed drilling:** Dec. 14, 1937  
**Drilling tools:** Rotary

**Total depth:** 4106  
**Plugged depth:** Junk

**Well Markers:**  
- Wilbur shale  
- Alamitos shale  
- "h"  
- "n"

**Depth:**  
- 3597-3662  
- 3795-3860  
- 3962  
- 4017

**Commenced producing:** Dec. 14, 1937  
**Flowing/gas dumping:** (1st 4 days)

<table>
<thead>
<tr>
<th>Clean Oil bbl. per day</th>
<th>Gravity Clean Oil</th>
<th>Per Cent Water including emulsion</th>
<th>Gas Mcf. per day</th>
<th>Tubing Pressure</th>
<th>Casing Pressure</th>
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</thead>
<tbody>
<tr>
<td>864</td>
<td>23.8</td>
<td>1.7</td>
<td></td>
<td>25</td>
<td>270</td>
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</tbody>
</table>

**Initial production:** 17 Mcf. per day

**Production after 55 days:**

<table>
<thead>
<tr>
<th>Size of Casing (A. P. I.)</th>
<th>Depth of Shoe</th>
<th>Top of Casing</th>
<th>Weight of Casing</th>
<th>New or Second Hand</th>
<th>Seamless or Lapweld</th>
<th>Grade of Casing</th>
<th>Size of Hole Casing landed in</th>
<th>Number of Sacks of Cement</th>
<th>Depth of Cementing if through perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-3/8</td>
<td>759</td>
<td>Surface</td>
<td>45.97#</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;c&quot;</td>
<td>17&quot;</td>
<td>350</td>
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</tr>
<tr>
<td>8-5/8</td>
<td>4015</td>
<td>Surface</td>
<td>32' &amp; 36'</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;c&quot;</td>
<td>12-1/4'</td>
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<tr>
<td>6-5/8</td>
<td>4106</td>
<td>3091</td>
<td>26'</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;c&quot;</td>
<td>7-5/8'</td>
<td>-</td>
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</table>

**Perforations**

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>From</th>
<th>To</th>
<th>Size of Perforations</th>
<th>Number of Rows</th>
<th>Distance Between Centers</th>
<th>Method of Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-5/8</td>
<td>4015</td>
<td>4106</td>
<td>120 mesh</td>
<td>16</td>
<td>6</td>
<td>Kobe</td>
</tr>
</tbody>
</table>

**Electrical Log Depths:** Schlumberger from 759 to 4104.

(Attach Copy of Log)
# Log and Core Record of Oil or Gas Well

**Operator:** Union Oil Company of California  
**Field:** Long Beach

**Well No.:** Oil Operators 2  
**Sec.:** 13  
**T.:** 4-6  
**R.:** 13-W  
**S.B.:** B & M

## Formations Penetrated by Well

<table>
<thead>
<tr>
<th>Depth to</th>
<th>Top of Formation</th>
<th>Bottom of Formation</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
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<td>0</td>
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<tr>
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<td>4101</td>
<td>4</td>
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<td>Sand and shells (see core record)</td>
</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No: OIL OPERATORS NO. 2
Sec. 13, T. 4-S, R. 13-W, SB B. & M.

FORMATIONS PENETRATED BY WELL

<table>
<thead>
<tr>
<th>DEPTH TO</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of Formation</td>
<td>Bottom of Formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4105</td>
<td>4558</td>
<td>453</td>
<td>Drilled</td>
<td>Shale and sand</td>
</tr>
<tr>
<td>4558</td>
<td>4659</td>
<td>101</td>
<td>&quot;</td>
<td>Sand and shale</td>
</tr>
<tr>
<td>4659</td>
<td>4749</td>
<td>90</td>
<td>&quot;</td>
<td>Sand and hard shale</td>
</tr>
<tr>
<td>4749</td>
<td>4825</td>
<td>76</td>
<td>&quot;</td>
<td>Shale (Note: see supplementary sheet rec'd. 1/20/42 for core)</td>
</tr>
<tr>
<td>4825</td>
<td>4853</td>
<td>28</td>
<td>&quot;</td>
<td>Sand and shale taken between 4800-4802</td>
</tr>
<tr>
<td>4853</td>
<td>4957</td>
<td>104</td>
<td>&quot;</td>
<td>Sand</td>
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<td>4957</td>
<td>5000</td>
<td>43</td>
<td>&quot;</td>
<td>Shale</td>
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<tr>
<td>5000</td>
<td>5297</td>
<td>297</td>
<td>&quot;</td>
<td>Sand</td>
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<td>5360</td>
<td>63</td>
<td>&quot;</td>
<td>Shale</td>
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<td>5385</td>
<td>25</td>
<td>&quot;</td>
<td>Sand</td>
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<td>5471</td>
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<td>Sand</td>
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<td>5471</td>
<td>5480</td>
<td>9</td>
<td>&quot;</td>
<td>Shale</td>
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No cores taken.
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER</th>
<th>SIZE &amp; TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
</tr>
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<tr>
<td>12-3</td>
<td>1</td>
<td>7-5/8&quot;</td>
<td>Soil</td>
<td>3986</td>
<td>3983</td>
<td>12.0</td>
<td>0.0</td>
<td>12.0</td>
<td></td>
<td></td>
<td>Firm to hard, fine to medium gray sand. Streak of brown shale 4.3 from top. Dip 25°</td>
</tr>
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<td>2</td>
<td>7-5/8&quot;</td>
<td>Soil</td>
<td>3983</td>
<td>4001</td>
<td>13.0</td>
<td>6.9</td>
<td>0.9</td>
<td>0.2</td>
<td>2.8</td>
<td>Hard dark brown shale, sandy in spots</td>
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<td>1.4</td>
<td>0.7</td>
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<td>Dip 16°. Fractures of 35° and 37°</td>
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<td>0.1</td>
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<td></td>
<td>Soft fine brown oil sand. Good odor</td>
</tr>
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<td>7-5/8&quot;</td>
<td>Soil</td>
<td>4001</td>
<td>4019</td>
<td>16.5</td>
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<td>0.3</td>
<td>0.2</td>
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<td>4.3</td>
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<td>0.2</td>
<td>0.5</td>
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<td>Firma, soft, medium brown oil sand.</td>
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<td>Shale partings in top 0.8</td>
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<td>Hard dark brown shale</td>
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<td>Firma to hard fine brown oil sand with</td>
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<td>streaks and inclusions of hard brown shale</td>
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T. 1-33546

Los Angeles, Calif. December 27, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS" 2, Sec. 13, T. 4 S., R. 13 W., S.B. B & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on December 10, 1937, Mr. F. C. Stole, designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present R. W. Rampton, Engineer, and J. Lewish, Toolpusher.

Location of water tested above 4016 and normal fluid level not determined.

Depth and manner of water shut-off:

- 2053 ft. of 8-5/8 in. 32 lb. casing was cemented in shale formation.
- 1963 ft. of 8-5/8 in. 36 lb. Victor oil well and cement by casing method.

Water string was landed in 12" rotary Sis. rotary or cable tool.

Casing record of well 13-3/8" cem. 7591; 8-5/8" as above.

Reported total depth of hole 4034 ft. Hole bridged from xx ft. to xx ft. Hole cleaned out to 4021 ft. for this test.

At time of test depth of hole measured xx ft. and bailer brought up sample of xxxxx.

At top of oil found at xxxxx ft., top of fluid found at xxxxx ft.

THE INSPECTOR ARRIVED AT THE WELL AT 9:15 A.M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. No casing test was made.
2. 27' of set cement was drilled out of the 8-5/8" casing (equivalent to 5 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4005'.
5. The tester valve was opened at 8:51 a.m. and remained open for 33 minutes. During this interval there was a medium air blow for 4 minutes, a gas blow by heads for 15 minutes and a light blow for the remaining 11 minutes.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 40' of medium drilling fluid and 1890' of oil and gas was found in the drill pipe above the tester, equivalent to 0.6 and 27.0 bbl.
2. The recording pressure bomb chart showed that the tester valve was open for 33 minutes. The test was completed at 11:40 a.m.

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By [Signature]
Deputy
629 South Hill Street
Los Angeles, California
November 24, 1937.

Union Oil Company of California,
Santa Fe Springs, Calif.

Gentlemen: Attention Mr. Henry H. Winter.

This will acknowledge receipt of and thank you for your letter dated November 22, 1937, giving the correct elevation and location of your well No. "Oil Operators" 2, Sec. 13, T. 4 S., R. 13 W., S. E. 1/4 & M., Long Beach field, as follows:

Elevation: 56.97' U. S. G. S.

Location: 523 ft. westerly along the center line of Dixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°.

Our records have been corrected accordingly.

Yours truly,

[Signature]

BEMS
Deputy Supervisor.

CC - Mr. E. D. Bush (2)
Long Beach
Santa Fe Springs, Calif. Nov. 22, 1937

Mr. R. Huguenin, Depty. Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

RE: Oil Operators #2

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #2" at Long Beach (Sec. 13, 4S, 13W) is 56.97 U.S.G.S.

The corrected location is as follows:

523 ft. Westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°

Our records have been corrected accordingly.

Very truly yours,

Henry E. Winst
District Engineer.
Division of Oil and Gas

Special Report on Operations Witnessed

No. T 1-33385

Los Angeles, Calif. November 22, 1937

Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. C. Stols, representative of the supervisor, on November 17, 1937. There was also present H. E. Winter, Engineer,

and J. Kewish, Drilling Foreman.

Casing Record 13-3/8" cas. 759'. T. D. 761'.

Junk --

The operations were performed for the purpose of demonstrating that the known surface waters are adequately protected.

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 3:00 P. M. AND MR. WINTER REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 761'.
2. 766' of 13-3/8" - 45.97 lb. casing was run into the hole to 759'.

THE INSPECTOR NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 759' with 350 sacks of Monolith Velo cement.
2. The cement was displaced with 674 cubic feet of mud fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:15 p. m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT the known surface waters are adequately protected.

cc: H. E. Winter
Long Beach
FCS:G

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31536.

Los Angeles, Calif. November 4, 1937.

Mr. Ed. Jussen, Jr.,
Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS" 2, Section 13, T. 4 S., R. 13 W. S.B. & M., Long Beach Field, Los Angeles County, dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

The well is 560 ft. from the center line of San Antonio from the center line of Del Mar and thence 115 ft. at right angles. The elevation of the derrick floor above sea level will be determined later (Approx. 55'').

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less."

PROPOSAL:

We propose to use the following strings of casing, either cementing or landing them as herein indicated: Size of Casing Weight New or Second Hand Depth Landed or Cemented

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>Weight</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>46</td>
<td>New</td>
<td>700'</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>8-5/8</td>
<td>36</td>
<td>New</td>
<td>4000</td>
<td>Cmtd.</td>
</tr>
<tr>
<td>6-5/8 Perforated liner</td>
<td>New</td>
<td>4100</td>
<td>Landed</td>
<td></td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the well and the column of mud fluid shall be maintained at all times to the surface, particularly while pulling the drill pipe.
   (b) Adequate blow-out prevention equipment shall be provided and ready for operation at all times.

2. Any hole to be sidetracked at any time during the drilling of this well shall be completely filled with cement.

3. The formations to be left back of the 8-5/8" casing shall be mudded by open circulation until the loss is not more than 5 bbl. per hr.

4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   (a) The cementing of the 13-3/8" surface casing.
   (b) Final mudding operations before cementing the 8-5/8" casing.
   (c) A test of the effectiveness of the 8-5/8" shut-off.

cc- H. E. Winter
Long Beach
WJG10H

* 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. southerly at 90°. (Correction letter 11-24-37)

R. D. BUSH
State Oil and Gas Supervisor

Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well
This notice must be given before drilling begins

General Exploration Co. 
Santa Fe Springs, Cal. Oct. 28, 1937

Mr. E. Huguenin,
Deputy State Oil and Gas Supervisor
Los Angeles, Cal.

DEAR SIR:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. 1, Oil Operators #2, Sec. 13, T. 4 S., R. 13 W., S.B., B. & M. Long Beach Oil Field, Los Angeles County.

Lease consists of 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 580 ft. Nly along center line of San Antonio from the center line of Del Mar and thence 115 ft. Wly at right angles.

(Give location in distance from section corners or other corners of legal subdivision)

The well is located 100 ft. N. or S. and 300 ft. E. or W. from the above described property.

The elevation of the derrick floor above sea level will be determined later. (approx. 55') 56.97 ft.

45 ft. southerly at 90°. Correction letter 11-24-37.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

<table>
<thead>
<tr>
<th>Size of Casing, Inches</th>
<th>Weight, Lb. Per Foot</th>
<th>New or Second Hand</th>
<th>Depth</th>
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<td>6-5/8 Perforated liner</td>
<td></td>
<td>New</td>
<td>4100</td>
<td>Landed</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less.

Respectfully yours

Address: Santa Fe Springs, Calif.

Telephone number: Whittier 426-87

UNION OIL COMPANY OF CALIFORNIA
(Name of Company or Operator)

By: Henry E. Wint
District Engineer

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED

037-09793
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT OF WELL ABANDONMENT

Long Beach, California
October 7, 1981

L. E. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Your report of abandonment of well NWLBU 8-5
(Natural and number)
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. E. B. & M.
Long Beach Field, Los Angeles County.
dated 9-2-81, received 9-4-81, has been
examined in conjunction with records filed in this office, and we have determined that all of
the requirements of this Division have been fulfilled.

HO: dh

cc: Update
Los Angeles County Planning Comm.
Fire Prevention Bureau
L. A. County Assessor
Dept. of Bldg. & Safety
Fire Dept.
Conservation Committee
Blanket Bond

M. G. MEFERD
State Oil and Gas Supervisor

By
Deputy Supervisor

For
R. A. YBARBA

OG159 (10/80/8M)
DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS
Company
Sun Oil Company
Well No. 01-1623-8.5
API No. 032-22295
Sec. 130 T. 4 S., R. 18 W., S.B. B.M.
County
Field
Long Beach

RECORDS RECEIVED
DATE
Well Summary (Form OG100) 9-7-81 (2)
History (Form OG103) 9-7-81 (2)
Core Record (Form OG101)
Directional Survey
Sidewall Samples
Other
Date final records received
Electric logs:

STATUS
Producing - Oil
Idle - Oil
Abandoned - Oil
Drilling - Idle
Abandoned - Dry Hole
Producing - Gas
Idle - Gas
Abandoned - Gas
Gas-Open to Oil Zone
Water Flood Source
DATE 8/22/81
RECOMPLETED
REMARKS

ENGINEER'S CHECK LIST
1. Summary, History, & Core record (duplic.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OG121
4. Form OG159 (Final Letter)
5. Form OG150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 10-14-81

RECORDS NOT APPROVED
Reason: need surgery 1981

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRI/5M)
WELL SUMMARY REPORT

Operator: SUN OIL COMPANY (Delaware)
Field: Long Beach

Location: (Give surface location from property or section corner, street center line and/or California coordinates)
534.81' N & 762.8' W from intersection of C/L of San Antonio Dr. & Del Mar Ave.

Total depth
(1st hole) 4965'
(2nd)  
(3rd)  

Depth measurements taken from top of:
Derrick Floor  
Rotary Table  
Kelly Bushing
Which is ± 10 feet above ground

Present effective depth
N/A

GEOLOGICAL MARKERS
N/A

DEEP

Formation and age at total depth
Brown

Lower Alamitos

Clean Oil (bbl per day)  
Gravity Clean Oil  
Percent Water including emulsion  
Gas (Mcf per day)  
Tubing Pressure  
Casing Pressure  

Initial Production  
N/A

Production After 30 days  
N/A

Casing Record (Present Hole)

Size of Casing (API) 13 3/8"  
Top of Casing Surface  
Depth of Shoe 662'  
Weight of Casing 48#  
Grade and Type of Casing K-55  
New or Second Hand New  
Size of Hole Drilled 17 1/2"  
Number of Sacks or Cubic Feet of Cement 903 Sacks Cl "G" cmt  
Depth of Cementing (if through perforations) -

Perforated Casing (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
None

Was the well directionally drilled? If yes, show coordinates at total depth
Yes  
No 415' N & 115' W

Electrical log depths
N/A

Other surveys
N/A

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name L.B. Carroll, Jr.  
Title District Engineer  
Address P.O. Box 55060  
City Valencia  
Zip Code 91355  
Telephone Number 805-257-6200  
Signature  
Date 9/3/81  

Submit in duplicate
History of Oil or Gas Well

Operator: SUN OIL COMPANY (DELAWARE)  Field or County: Long Beach
Well: North Wilmington Long Beach Unit 8-5 Sec 13, T4S, R13W, SB. B. & M.
A.P.I. No.: 037-22295  Name: L. B. CARROLL, JR.
Date: 9/2/81  Title: Agent

Signature: [Signature]

P. O. Box 55060, Valencia, California 91355  (Address)
(805) 257-6200  (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during re-drilling or altering the casing, plugging, or abandonment with dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

1981

7/30 5826 TVD/"V" SANDS/IR/ATLANTIC OIL/LA CA/WI 1.00/
SURF LOC: 534.81' N & 762.8' W FRM INTERSECTION OF C/L OF SAN ANTONIO DR & DEL MAR AVE; BHL: 415' N & 115' W FRM SURF LOC/475 SD SH D (420) DRLG/MIRU ATLANTIC OIL CO RIG #3/SPUD @ 7 AM/
DRLG 17½" HOLE FRM 55-65'/SHUT DN 2½ HR WAITING ON DP ELEVATORS/INST SOUND PROOFING ARND MUD PMPs/DRLG 17½" HOLE FRM 65-475'/MW 68/VIS 55/

7/31 665 SD SH D (190) WOC/DRLG 17½" HOLE FRM 475-665/PREP HOLE TO RUN
csg/RAN 18 JTS (669) 13-3/8" 48#/H40, ST-C w GUIDE SHOE @ 662,
FLOAT CLR @ 622/HALIB PMP 903 CF CL "G" CMT w 2% CaCl2/DISP w 573
CF DRLG MUD/DID NOT BMP PLUG/CIP @ 1:55 AM/225 CF CMT RTNS TO SURF/
WOC 4 HRS/SURV @ 665 ½'/MW 70/VIS 47/

8/3 8-1/665 SD SH RIH w 12¾" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD
ON 13-3/8" CSG HD/INST BBE TO 1000 PSI, OK/MU BHA & RIH/
MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/RIH w 12¾" BIT & TAG CMT @
343/TST CSG & BBE TO 1000 PSI, OK/WAIT ON DOG 1 HR/CO CMT FRM 343-
623/TST CSG & BBE, OK/DRLG FLOAT, CMT & SHOE TO 662/DRLG 12½" HOLE
FRM 662-1239/MW 70/VIS 44/8-3/1768 SD SH D (529) DRLG/DRLG & DYNA DRL
12½" HOLE FRM 1239-1768/SURV @ 1692 9°15' H40°30'W/TVD 1690.50/SEC.
23.26/N-21.10/E-10.94/MW 69/VIS 42/

8/4 2062 SD SH D (294) DRLG/DRLG & DYNA DRL 12½" HOLE FRM 1768-2062/
SURV @ 2031 10°30' N37°W/TVD 2023.60/SEC.81.77/N-71.50/W-48.16/
MW 70/VIS 40/

8/5 2498 SD SH D (436) TRIP FOR DYNA DRL/DRLG 12½" HOLE FRM 2062-2498/
SURV @ 2488 13°45' N32°W/TVD 2469.26/SEC.176.82/N-154.17/W-105.73/
MW 68/VIS 37/

8/6 2760 SD SH D (262) DRLG/DRLG & DYNA DRL FRM 2498-2760/SURV @ 2669' 12°30' N 08°30' W/TVD 2645.77/SEC.216.84/N-192.52/W-176.42/MW 68/
VIS 39/

8/7 3337 SD SH D (577) TRIP/DRLG 12½" HOLE FRM 2760-3337/TRIP FOR BIT/
DRL PIPE VERY TIGHT/SURV @ 3307/10°30'N 05°30'W/TVD 3272.09/SEC.
336.52/N-313.02/W-130.54/MW 68/VIS 39/
DIVISION OF OIL & GAS
History of Well

NWLB# 8-5
Sec.13,T13,R4S,SBB&M

Page: 2

1981

8/8 3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL TOOL JTS/DRLG 12½" HOLE FRM 337-3524/SURV @ 3518' 6°30'N 0°30' W/
TVD 3480.77/SEC.366.91/N-343.87/W-133.02/MW 69/VIS 39/

8/9 3940 SD SH D (416) DRLG/DRLG 12½" HOLE FRM 3524-3940/SURV
@ 3940 5°/N 0°30' E/TVD 3900.77/SEC.406.94/N-384.81/W-135.14/MW 69/
VIS 38/

8/10 4040 SD SH D (100) DRLG/TRIP TO CHG TOOLS TO 8-3/4"/DRLG
8-3/4" HOLE FRM 4040-4028, SURV LINE BROKE, TRIP TO RETRIEVE SURV &
LINE/DRLG 8-3/4" HOLE FRM 4028-4040/SURV @ 4028 4°30'N 2°30' W/
TVD 3988.46/SEC.413.99/N-392.10/W-135.27/MW 68/VIS 40/

8/11 4432 SD SH D (392) REPR SWIVEL/DRLG 8-3/4" HOLE FRM 4040-4432/REPR
SWIVEL 2 HRS/SURV @ 4390 3°15'N 17°30' E/TVD 4349.88/SEC.433.32/
N-412.11/W-135.46/MW 69/VIS 37/

8/12 4432 PREPNOG RIG/REPR SWIVEL/TRIP FOR NEW BIT/REPR ROTARY CLUTCH/
REPR HOOK ON BLOCKS/MW 68/VIS 35/

8/13 4669 SD SH D (237) DRLG/COMPLETE THE RIG REPR/DRLG 8-3/4" HOLE FRM
4432-4669/SURV @ 4578' 1°45', N09°E/TVD 4537.71/SEC.440.46/N-
419.95/W-133.88/MW 68/VIS 42/

8/14 4822 SD SH D (158) REAMING/DRLG 8-3/4" HOLE FRM 4669-4700/REPR RIG
FOR 2½ HRS/DRLG FRM 4700-4822/TRIP FOR BIT & BHA/REAM FRM 4690-4822/
SURV @ 4822, 0°30', N-39°E/TVD 4781.66/SEC.444.70/N-424.55/W-133.17/
MW 68/VIS 37/

8/15 4965 SD SH D (183) ATTEMPT TO FREE STUCK PIPE/DRLG 8-3/4"
HOLE FRM 4822-4965/LOST RTNS @ 4965/PD TO 4790; PIPE STUCK/WRK
STUCK DP & PMP TOT OF 1700 BELS MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTEMPT TO FILL HOLE; COULD NOT FILL/
MIRU DIA-LOG/RAN FREE POINT/FREE POINT SHOWD PIPE STUCK @ 703 &
826/Pipe FREE @ 638 INSIDE 13-3/8" SURF CSG/STG SHOT TOOL JT @ 638/
COULD NOT BACK OFF/RESHOT @ 638/BK OFF DP @ 638/PULLED 130,000# DN
DP FRM 638-577/POH w DP/BTM JT COVERD w CMT/MU FISHING TOOLS & RIH
w OVERSHOT, BMPR SUB, JARS, DC'S/TAG FILL @ 538 w TOP OF FISH @
638/CO FILL TO TOP OF FISH @ 638 w NO RTNS/ATTEMPT TO GET OVR FISH/
PUSHD FISH DN HOLE/CK TO SEE FISHING TOOLS FREE, OK/TOP OF FISH @
726; BTM @ 4878/MW 68/VIS 70/

8/17 4965 SD SH FISHING DP/ATTEMPT TO WASH DN OVR 4" DP w 7-5/8"
OVERSHOT TO 842 w NO RTNS/POH & LD FISHING TOOLS/RIH w 12½" BIT DC's
& BMPR SUB/STPD @ 539/POH & MU 9-5/8" OVERSHOT, BMPR SUB, JARS, DC's
& ACCELERATOR/RIH & WRK THRU TIGHT SPOT @ 539-542/CO TO 870 w NO
RTNS/PREP TO CALIPER 13-3/8" CSG; POSSIBLY COLLAPSED OR PARTD/MW 70/
VIS 85/

8/18 4965 POH w IB/RIG UP DIA LOG & RUN CSG INSPI LOG/CSD PARTED @ 544/
RIH w 1 CONE 12½" BIT, UNABL TO GET INTO CSG, RUN DN BESIDE 13-3/8
TO 677'/WAIT ON I.B./RUN 11½' IB TO 544, SET DN 10,000#/POH w IB/
DIVISION OF OIL & GAS
History of Well

NWLB# 8-5
Sec.13,T13,R4S,SBB&M

Page: 3

1981

8/19 4965 PREPNG TO PMP TEMP BLOCK "60" PILL/RIH OPN ENDED TO 544'/MIX & PMP 300 BBL'S OF LCM, 200 BBL'S w 27# PER BBL OF LCM, 100 BBL'S w 15-17# PER BBL OF LCM, NO RTNS/RIH w 101½" IB w 12½ STAB ABOV IT, TO 544/IB SHOWS CSG IS 5" OUT IN HOLE/RIH OPN ENDED TO 544, PREP TO MIX TEMP BLOCK "60"/

8/20 4965 PREPNG TO P&A/MX & PMP 60 BBL'S OF TEMP BLOCK 61 @ 518/POH WAIT 2 HRS, ATTEMPT TO FILL HOLE, HOLE WD NOT FILL/RIH TO 518, PMP 30 BBL'S OF TEMP BLOCK 61, POH/RIH w 4-3/4" SWEDGE, 1 JT CROOKED 4" DP, 8-3/4" STAB ON 5 - 6" D.C./ATTEMPT TO GET INTO SHIFTED CSG/UNABL TO DO SO/RUN 10-1/4" IB TO 544, POH IB SHOWS CSG 4 - 5" INSIDE/LOAD ALL TOOLS & PREP TO P&A/

8/21 4965 TD WOC/w OPN ENDED DP @ 564, HALIB PMP 100 SX "G" CMT w .25% THIX SET "A", .25% THIX SET "B", 25# PER SX GIL, 3½# PER SX FLOCELE w 2% CaCl₂/WOC 4 HRS, RIH TO 564 NO PLUG/PMP 4, 50 SX PLUGS, 1 EVERY 2 HRS/WOC"FOR 4 HRS/RIH 541, PMP 50 CF FLO-CHECK, 100 SX CMT PLUG/POH & WOC/

8/22 4965 TD, PSA ON 8-21-81/ TAG CMT PLUG @ 301, WITNESS & APPRVD BY D.O.G./SPOT CMT FRM 181-SURF/FULL BOP, CUT OFF WELL HD & CSG 5' BELOW GRND LEVEL/RIG DN RIG PREP TO MOVE TO NWLB# 8-7/
L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach  Calif.
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T 48 S, R. 13 W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on 8-21-81 by G. W. Stark, Engineer, representative of the supervisor, was present from 0810 to 0940. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56', 13-3/8" cem 662', parted @ 544', Junk below 648', TD 4965'. Plugged w/cem 548'-301' & 185'-8'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of abandonment.

DETECTION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

GWS: dh

cc: Update
EDP

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor

R. A. YBARRA
Cementing/Plugging Memo

Operator: Sun Oil Company
Well No.: NWLBUL 8-5
API No.: 037-20295
Sec./T./R.: 13/45/13W, 58 B&M
Field: Long Beach, County: Los Angeles
On 8-21-81, Mr. G.W. Stark, representative of the supervisor was present from 0810 to 0840. There were also present D. Rodgers DF

Casing record of well: 20" cemented 13 3/4" cement 662, parted @ 544 feet, inches below 648', TD 4965', plugged w/ cement 548' to 301' 185'8'.

The operations were performed for the purpose of (X)

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @ is approved.

Hole size: ______ " fr. ______ ' to ______ ', ______ " to ______ ' & ______ " to ______ '.

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>--------</td>
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</tr>
</tbody>
</table>

Casing/tubing recovered: ______ " shot/cut at ______ ', ______ ', ______ ' pulled fr. ______ '; ______ " shot/cut at ______ ', ______ ', ______ ' pulled fr. ______ '.

Junk (in hole):

Hole fluid (bailed to) at ______ '. Witnessed by

<table>
<thead>
<tr>
<th>Mudding</th>
<th>Date</th>
<th>Bbls.</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engr.</th>
</tr>
</thead>
</table>
| Existing Hole mud used to fill space 301'-185'.

weight 72#cf 0.50 C.S. lost circulation material Added.

<table>
<thead>
<tr>
<th>Cement Plugs</th>
<th>Placing</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Sx./cf</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>8/21/81</td>
<td>500 scf</td>
<td>DP @ 548</td>
<td>8:20/81</td>
</tr>
<tr>
<td>8/21/81</td>
<td>100 scf</td>
<td>DP @ 185</td>
<td>0910</td>
</tr>
</tbody>
</table>

OGD10 (2-75-GSR1-6M)
Deficiencies Corrected
None.

Deficiencies to be Corrected
None.

Contractor: Atlantic Oil Company
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 31, 1981

Your proposal to abandon well NWLB 8-5, A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M., Long Beach field, Northwest Extension area, pool, Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. All portions of the hole not plugged with cement shall be filled with clay base mud fluid having a minimum density of 72 lb/ cu ft and a minimum gel-shear strength of 25 lb/ 100 sq ft.
2. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the placing, location and hardness of the cement plug from 648' to 440'.
   b. To witness the placing of the cement surface plug.
   c. To inspect and approve the clean-up of the well site before approval of abandonment will be issued.

H0:dh

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By R. A. YBARBA, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
Notice of Intention to Abandon Well
This notice must be given at least five days before work is to begin.

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU #8-5, API No. 037-22295, Sec. 13, T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County, commencing work on August 20, 1981.

The present condition of the well is:

1. Total depth: 4965' (8 3/4" Hole)
2. Complete casing record, including plugs and perforations:
   13 3/8", 48#, H-40, ST&C csg shoe @ 662'; cmt'd w/903 CF CL 'G' cmt w/2% CaCl2, 13 3/8" csg parted @ 540'; 4" DP Fish from 638' to 4790'

3. Last produced Never Produced
   (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)
   or
4. Last injected Never Injected
   (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

The proposed work is as follows:

(1) RIH w/4' D P open-ended to 540'
(2) Spot 300 sx of CL 'G' cmt w/0.25% Thix-set 'A', 0.25% Thix-set 'B', 25#/sx Gilsonite, 1/2#sx Flocelle, & 2% CaCl2
(3) Tag TOC @ 440' or higher
(4) Spot column of 68PCF fresh water-gel mud to 100' from surface
(5) Spot additional cement plug from 100' to surface
(6) Cut off 13 3/8" casing
(7) RDMO
(8) Restore surface to original conditions

Additional data for dry hole (show depths)
Well never logged or tested - stuck drill pipe
5. Oil or gas shows
   N/A

6. Stratigraphic markers:
   N/A

7. Formation and age at total depth: N/A

8. Base of fresh water sands: N/A

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 25322 West Rye Canyon Road
Valencia California 91355
Telephone Number: (805) 257-6200

Sun Production Company

Type of Organization: Corporation

By: [Signature] Date: 8-20-81

 OG108 (12-73-GSR1-15M)
L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
September 14, 1981

Your operations at well NWLB 8-5, API No. 037-22295, Sec. 13, T.4S, R.13W, S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-1-81 by W. E. Brannon, Engineer, representative of the supervisor, was present from 0600 to 1100. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662'. TD 665'.

The operations were performed for the purpose of Testing the blowout prevention equipment and installation.

DECISION: APPROVED.

NOTE:

DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
1. Pressure gauge was on kill line.
2. Pump unable to hold pressure above 500#.
3. Adjustable choke had slow leak.
4. Remote control box was not hooked up.
5. First test failed.

CONTRACTOR: Atlantic Oil Company

WEB: dh
cc: Update
Dispatcher Clerk

M. G. MEFFERD
State Oil and Gas supervisor

By
Deputy Supervisor

R. A. YBARRA
DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: Sun Oil Company
Well: NWBLU 8-5
Field: Long Beach
County: Los Angeles

VISITS: Date Engineer Time Operator's Rep. Title
1st 8-1-81 M.E. Brown 1600 to 1900 D. Rodgers DF
2nd 8-1-81

Casing record of well: 20" Cem 5K; 13 5/8" Cem 662' TD 166'

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and installation are approved.

Proposed Well Ops: drill
MSPH: psi
Hole size: 24" fr. 0' to 20', 17 5/8" to 665', 6" to __________

CASING RECORD (BOPE ANCHOR STRING ONLY)
Size Weight(s) Grade (s) Shoe at CP at Cement Details Top of Cement Casing Annulus
13 5/8" 48# H-516 662

BOP STACK
API Symb Ram Siz. Mfr. Model or Type Size Press. Date Last Overhaul Gal. to Close Rec. Time Min. Calc. GPM Output psi Drop to Close Secs. to Close Test Date Test Press
A 12 Hydr R 12 3000
B 4 Choke R 12 3000
C 6 Cc R 12 3000

TEST DATA

ACTUATING SYSTEM
Accum. Unit(s) Wkg. Press. 1500 psi
Total Rated Pump Output: gpm
Distance From Well Bore 75 ft.

CONTROL STATIONS
1 Hydr 80 gal. 750 psi
2 gal. psi

EMERG. BACKUP SYST. Press. Wkg. Fl.
N2 Cyl No. 1: Type: 1 2700 gal
22400 gal
32400 gal
4 gal
5 gal
6 gal

HOLE FLUID MONITORING EQUIPMENT
Calibrated Mud Pit Aud. Vis. A
Pit Level Indicator x
Pump Stroke Counter x
Pit Level Recorder
Flow Sensor
Mud Totalizer
Calibrated Trip Tank
Other:

REMARKS:

AUXILIARY EQUIPMENT
X Fill-Up Line
X Kill Line 2" 3000 x 1200
X Control Valve(s) 1" 3000 x 1200
X Check Valve(s) 1" 3000 x 1200
X Auxil. Pump Connec.
X Choke Line 2" 3000 x 1200
X Control Valve(s) 1" 3000 x 1200
X Pressure Gauge
X Adjustable Choke(s) 2" 3000
X Bleed Line 2" 3000
X Upper Kelly Cock
X Lower Kelly Cock
X Standpipe Valve
X Standpipe Pressure Ga.
X Pipe Safety Valve
X Internal Preventer

Hole Fluid Type Weight Storage-Pits
Clay base mud 9.5# 270.5 bbl
DEFICIENCIES—TO BE CORRECTED  NONE

DEFICIENCIES—CORRECTED
1. Pressure guage was on kill line
2. Pump unable to hold pressure above 500#
3. Adjustable choke had slow leak
4. Remote control box was not hooked up.
5. First test failed

CONTRACTOR Atlantic Oil Co
REPORT OF CORRECTION OR CANCELLATION

L. B. Carroll, Jr., Agent  
SUN OIL COMPANY  
25322 W. Rye Canyon Road  
Valencia, CA 91355

Long Beach, California  
June 25, 1981

In accordance with your notice of June 8, 1981

the following change pertaining to your well NWLBU 8-5 (037-22295)

Long Beach field, Los Angeles County,
Sec. 13, T. 4S, R. 13W, S.B. B. & M., is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. ______________, dated ______________, has been corrected as follows:

☐ Your notice to ______________ (Drill, abandon, etc.) dated ______________ and our report No. P ______________, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☐ Other: Bottom Hole Location: 415' North and 115' West from surface location.

HO:eb

cc: Update Center EDP
Blanket Bond  
State Oil and Gas Supervisor

By  
Deputy Supervisor

for: R. A. Ybarra
A notice to you dated November 25, 1980, stating the intention to drill NW LONG BEACH UNIT #8-5, API No. 037-22295, (Drill, rework, abandon) (Well name and number) Sec. 13, T. 4S, R. 13W, B. & M., LONG BEACH Field, Los Angeles County, should be amended because of changed conditions. The present condition of the well is as follows: The well has not been drilled as yet.

Total depth

Complete casing record including plugs and perforations:

We now propose BHL: 415' North & 115' West from surface location.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. Rye Canyon Road Valencia California 91355 (Street) (City) (State) (Zip)

Telephone Number 805/257-6200

Sun Oil Company (Delaware)

Type of Organization Corporation (Name of Operator) (Corporation, Partnership, Individual, etc.)

By L. B. Carroll, Jr. 6/8/81 (Name) (Date)

Signature L. B. Carroll, Jr.
REPORT OF CORRECTION OR CANCELLATION

Long Beach, California

December 1, 1980

Mr. L. B. Carroll, Jr., Agent
SUN OIL COMPANY
23928 Lyons Avenue
Newhall, CA 91321

In accordance with your (corrected copy) Notice of Intention to Drill

the following change pertaining to your well No. NWLBU 8-5 (037-22295)
Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field,
Los Angeles County, District No., is being made in our records:

☐ The corrected location is 535' North & 763' West @ Right Angle from intersection
  C/L San Antonio Drive & Del Mar Ave.

☐ The corrected elevation is

☐ Report No. , dated , has been corrected as follows:

☐ Your notice to , dated , (Drill, abandon, etc.)

and our report No. P , issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☐ Other: Proposed coordinates from surface location @ TD 393' S & 439' E

HO/bd

cc: Update Center - EDP
Sun Oil Co.
Blanket Bond

State Oil and Gas Supervisor

By [Signature]

[Signature]

[Signature]
In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well **NW LONG BEACH UNIT #8-5**, API No. (Assigned by Division), Sec. 13, T.4S., R.13W., SB B. & M., Long Beach Field, Los Angeles County.

Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

---

Do mineral and surface leases coincide? Yes [ ] No [X] If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 535 feet North and 763 feet West at right angles to sides line from the intersection of centerlines of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes [ ] No [X]

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

**415 383** feet South and **439 115** feet East

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing that is 10 feet above ground.

**PROPOSED CASING PROGRAM**

<table>
<thead>
<tr>
<th>SIZE OF CASING</th>
<th>WEIGHT</th>
<th>GRADE AND TYPE</th>
<th>TOP</th>
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</thead>
<tbody>
<tr>
<td>10-3/8&quot;</td>
<td>48#</td>
<td>H-40</td>
<td>Surface</td>
<td>650'</td>
<td>650'</td>
<td>Surface</td>
</tr>
<tr>
<td>9-5/8&quot;</td>
<td>36#</td>
<td>K-55; S-80</td>
<td>Surface</td>
<td>5950'</td>
<td>5950'</td>
<td>1500'</td>
</tr>
</tbody>
</table>

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion: Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD Estimated total depth 5876' TVD (Name, depth, and expected pressure) Pres. ≈ 800 PSI

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator: SUN OIL COMPANY (DELAWARE)  
Type of Organization: CORPORATION

Address: 23928 LYONS AVENUE  
City: NEWHALL, CALIFORNIA  
Zip Code: 91321

Telephone Number: Name of Person Filing Notice  
L. B. CARROLL  
Signature: L. B. Carroll  
Date: 11-25-80

DISTRICT ENGINEER

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-IOM)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: City of Long Beach
Contact Person: G. H. Felgemaker
Address: 333 West Ocean Blvd.
Long Beach, California 90802
Phone: (213) 590-6894

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes □ No □
Remarks: ________________________________________________________________
_______________________________________________________________

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.
(2) 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

 Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well
*CORRECTED COPY

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. (Assigned by Division), Sec.13, T4S, R.13W, SB B. & M., Long Beach Field, Los Angeles County.
Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

Do mineral and surface leases coincide? Yes No. X If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 535 feet North and 763 feet West
at right angles to said line from the
intersection of centerlines of San Antonio Drive & Del Mar Avenue
Is this a critical well according to the definition on the reverse side of this form? Yes No
If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:
393 feet South and 439 feet East

Elevation of ground above sea level 45.5 feet.
All depth measurements taken from top of Kelly Bushing that is 10 feet above ground.

PROPOSED CASING PROGRAM

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(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion: Lower Alamitos @ 4311'TVD; Brown @ 4726'TVD Estimated total depth 5876'TVD

Name of Operator: SUN OIL COMPANY (DELAWARE)
Type of Organization (Corporation, Partnership, Individual, etc.): CORPORATION
Address: 23928 LYONS AVENUE
City: NEWHALL, CALIFORNIA
Name of Person Filing Notice: L. B. CARROLL
Signature: L. B. CARROLL
Telephone Number: 805/259-2440
Date: 11/25/60

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: City of Long Beach
Contact Person: G. H. Felgemaker
Address: 333 West Ocean Blvd.
          Long Beach, California 90802
Phone: (213) 590-6894

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks: ____________________________________________________________

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

1. 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.
2. 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
REPORT ON PROPOSED OPERATIONS

Mr. L. B. Carroll, Jr., Agent
SUN OIL CO.
23928 Lyons Ave.
Newhall, CA 91321

Long Beach, California
Nov. 3, 1980

Your proposal to drill well NWLBU 8-5
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S.B. B & M.
Long Beach field, Old area, -- pool,
Los Angeles County, dated 10/23/80, received 10/24/80 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class III B, 3M requirements, or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Sufficient cement shall be used to fill back of the 9-5/8" casing to a depth of 1500' or cemented through cementing ports at approx. 1700' with sufficient cement to fill to a depth of 1500'.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 13-3/8" casing.
   b. A test of the effectiveness of the 9-5/8" shutoff above the lower Alamitos zone.

cc Update Center - EDP
Sun Oil Co.

Blanket Bond

Fred Allen/St. Manuel 8/20/81
13½" parted @ 662'; Top of 4" field @ 658'
Ok to play to surf, will send mtr.

M. C. MEFFERD, State Oil and Gas Supervisor

By
R. A. YBARRA
Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. 13722295, Sec. 13, T.4S, R.13W, SB B. & M., Long Beach Field, Los Angeles County.

Legal description of mineral-right lease, consisting of 149 acres, is as follows:

- See Attached -

Do mineral and surface leases coincide? Yes ☑ No X. If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 535534 feet North along section/property line and 763767 feet West at right angles from the

intersection of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes ☐ No ☑

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

Correction dated 11-25-80

Elevation of ground above sea level 46 feet.

All depth measurements taken from top of Kelly Bushing that is 10 feet above ground.

PROPOSED CASING PROGRAM

<table>
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<td>5900'</td>
<td>5900'</td>
<td>1500'</td>
</tr>
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</table>

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4315' TVD, Brown @ 4730' TVD. Estimated total depth 5860' TVD.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator: SUN OIL COMPANY (DELAWARE) Corporation

Address: 23928 Lyons Avenue

Telephone Number: 805/259-2440 Name of Person Filing Notice: L. B. CARROLL, JR.

City: Newhall, California Zip Code: 91321

Signature: L. B. CARROLL (by me) Date: 10/23/80

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: CITY OF LONG BEACH
Contact Person: G. H. FELGEMAKER
Address: 333 WEST OCEAN BLVD.
LONG BEACH, CALIFORNIA 90802
Phone: (213) 590-6894

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes □ No □
Remarks: ____________________________________________________________
__________________________________________________________

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

(1) 300 feet of the following:
    (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
    (B) Any airport runway.

(2) 100 feet of the following:
    (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
    (B) Any navigable body of water or watercourse perennially covered by water;
    (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
    (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.
1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT OF WELL ABANDONMENT

Long Beach, California
October 7, 1981

L. E. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Your report of abandonment of well WPWBU 8-5
(Name and number)
A.P.I. No. 037-22295 Section 13 T. 4S R. 13W S. E. B. & M.
Long Beach field, Los Angeles County.
dated 9-2-81 received 9-4-81 has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

HO: dh

cc: Update
Los Angeles County Planning Comm.
Fire Prevention Bureau
L. A. County Assessor
Dept. of Bldg. & Safety
Fire Dept.
Conservation Committee
Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By Herman Delong
Deputy Supervisor

For R. A. Ybarra
DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: Sun Oil Company
Well No.: 35-BEB
API No.: 037-22295
Sec.: 13
County: Long Beach
Field: Long Beach

RECORDS RECEIVED          DATE
---                            -------
Well Summary (Form OGL00)    9-7-81 (2)
History (Form OGL03)         9-7-81 (2)
Core Record (Form OGL01)     
Directional Survey           
Sidewall Samples            
Other                        
Date final records received 
Electric logs:               

STATUS
---
Producing - Oil             Water Disposal
Idle - Oil                  Water Flood
Abandoned - Oil             Steam Flood
Drilling - Idle             Fire Flood
Abandoned - Dry Hole        Air Injection
Producing - Gas             Gas Injection
Idle - Gas                  CO2 Injection
Abandoned - Gas             LPG Injection
Gas-Open to Oil Zone        Observation
Water Flood Source
DATE: 8-22-81
RECOMPLETED
REMARKS

ENGINEER'S CHECK LIST
1. Summary, History, & Core record (dupl.)
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "M" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121 10-14-81
4. Form OGL59 (Final Letter) 10-14-81
5. Form OGD150 (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 10-14-81

RECORDS NOT APPROVED
Reason: need survey

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)
## WELL SUMMARY REPORT

### Operator
SUN OIL COMPANY (Delaware)

### Well
NWLBU #8-5

### Field
Long Beach

### County
Los Angeles

### Location
(Give surface location from property or section corner, street center line and/or California coordinates)
534.81' N & 762.8' W frm intersection of C/L of San Antonio Dr. & Del Mar Ave.

### Elevation of ground above sea level
45.5

### Commenced drilling (date)
7/30/81

### Completed (P&A)
8/20/81

### Commenced producing (date)
N/A

### Flowing
No

### Pumping
No

### Gas Lift
No

### Present effective depth
Junk

### GEOLOGICAL MARKERS
None

### DEPTH
N/A

### Formation and age at total depth
Brown

### Initial Production
N/A

### Clean Oil
N/A

### Gravity Clean Oil
N/A

### Percent Water
N/A

### Gas
N/A

### Tubing Pressure
N/A

### Casing Pressure
N/A

### CASING RECORD (Present Hole)

<table>
<thead>
<tr>
<th>Size of Casing (API)</th>
<th>Top of Casing</th>
<th>Depth of Shoe</th>
<th>Weight of Casing</th>
<th>Grade and Type of Casing</th>
<th>New or Second Hand</th>
<th>Size of Hole Drilled</th>
<th>Number of Sacks or Cubic Feet of Cement</th>
<th>Depth of Cementing (if through perforations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 3/8&quot; Surface</td>
<td>662'</td>
<td>48#</td>
<td>K-55</td>
<td>New</td>
<td>17 1/2&quot;</td>
<td>903 Sacks Cl &quot;G&quot; cmt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PERFORATED CASING
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

None

### Was the well directionally drilled?
Yes

### Electrical log depths
N/A

### Other surveys
N/A

---

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: L.B. Carroll, Jr.
Title: District Engineer
Address: P.O. Box 55060
City: Valencia
Zip Code: 91355
Telephone Number: 805-257-6200
Signature: L.B. Carroll, Jr.
Date: 9/3/81

Submit in duplicate
History of Oil or Gas Well

Operator: SUN OIL COMPANY (DELAWARE) Field or County: Long Beach
Well: North Wilmington Long Beach Unit 8-5, Sec 13, T4S, R13W, SB, B & M.
A.P.I. No.: 037-22295 Name: L. E. CARROLL, JR. Title: Agent
Date: 9/2/81

Signature: [Signature]

P. O. Box 55060, Valencia, California 91355 (Address)
(805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

1981

7/30 5826 TVD/"V" SANDS/IR/ATLANTIC OIL/LA CA/ WI 1.00/
SURF LOC: 534.81' N & 762.8' W FRM INTERSECTION OF C/L OF SAN
ANTONIO RD & DEL MAR AVE; BHL: 415' N & 115' W FRM SURF LOC/
475 SD SH D (420) DRLG/MIRU ATLANTIC OIL CO RIG #3/SPUD @ 7 AM/
DRLG 17½" HOLE FRM 55-65'/SHUT DN 2½ HR WAITING ON DP ELEVATORS/
INST SOUND PROOFING ARMD MUD PMPs/DRLG 17½" HOLE FRM 65-475'/
MW 68/VIS 55/

7/31 665 SD SH D (190) WOC/DRLG 17½" HOLE FRM 475-665/PREP HOLE TO RUN
CSG/RAN 18 JTS (669) 13-3/8" 48#, H40, ST-C w GUIDE SHOE @ 662,
FLOAT CLR @ 622/HALIB PMP 903 CF CL "G" CMT w 2% CaCl₂/DISP w 573
CAF DRLG MUD/DID NOT BMP PLUG/CIP @ 1.55 AM/225 CF CMT-RTNS TO SURF/
WOC 4 HRS/SURV @ 665 ½'/MW 70/VIS 47/

8/3 8-1/665 SD SH RIH w 12¼" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD
ON 13-3/8" CSG HD/INST & BST BOE TO 1000 PSI, OK/MU BHA & RIH/
MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/RIH w 12¼" BIT & TAG CMT @
343/TST CSG & BOE TO 1000 PSI, OK/WAIT ON DOG 1 HR/CO CMT FRM 343-
622/TST CSG & BOE, OK/DRLG FLOAT, CMT & SHOE TO 662/DRLG 12½" HOLE
FRM 662-1239/MW 70/VIS 44/8-3/1768 SD SH D (529) DRLG/DRLG & DYN A DRL
12½" HOLE FRM 1239-1768/SURV @ 1692 9°15' H40°30'W/TVD 1690.50/SEC.
23.26/N-21.10/E-10.94/MW 69/VIS 42/

8/4 2062 SD SH D (294) DRLG/DRLG & DYN A DRL 12½" HOLE FRM 1768-2062/
SURV @ 2031 10°30' N37 W/TVD 2023.60/SEC.81.77/N-71.50/W-48.16/
MW 70/VIS 40/

8/5 2498 SD SH D (436) TRIP FOR DYN A DRL/DRLG 12½" HOLE FRM 2062-2498/
SURV @ 2488 13°45' N32 W/TVD 2469.26/SEC.176.82/N-154.17/W-105.73/
MW 68/VIS 37/

8/6 2760 SD SH D (262) DRLG/DRLG & DYN A DRL FRM 2498-2760/SURV @ 2669' 12°30' N 08°30' W/TVD 2645.77/SEC.216.84/N-192.52/W-176.42/MW 68/
VIS 39/

8/7 3337 SD SH D (577) TRIP/DRLG 12½" HOLE FRM 2760-3337/TRIP FOR BIT/
DRL PIPE VERY TIHG'T/SURV @ 3307/10°30'N 05°30'W/TVD 3272.09/SEC.
336.52/N-313.02/W-130.54/MW 68/VIS 39/
DIVISION OF OIL & GAS
History of Well

NWLBU #8-5
Sec.13,T13,R4S,SBB&M

Page: 2

1981

8/8  3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL
TOOL JTS/DRLG 12¾" HOLE FRM 337-3524/SURV @ 3518' 6°30'/N 0°30' W/
TVD 3480.77/SEC.366.91/N-343.87/W-133.02/MW 69/VIS 39/

8/9  3940 SD SH D (416) DRLG/DRLG 12¾" HOLE FRM 3524-3940/SURV
@ 3940 5°/N 0°30' E/TVD 3900.77/SEC.406.94/N-384.81/W-135.14/MW 69/
VIS 38/

8/10 4040 SD SH D (100) DRLG/TRIP TO CHG TOOLS TO 8-3/4"/DRLG
8-3/4" HOLE FRM 3940-4028, SURV LINE BROKE, TRIP TO RETRIEVE SURV &
LINE/DRLG 8-3/4" HOLE FRM 4028-4040/SURV @ 4028 4°30'/N 2°30' W/
TVD 3988.46/SEC.413.99/N-392.10/W-135.27/MW 68/VIS 40/

8/11 4432 SD SH D (392) REPR SWIVEL/DRLG 8-3/4" HOLE FRM 4040-4432/REPR
SWIVEL 2 HRS/SURV @ 4390 3°/N 17°30' E/TVD 4349.88/SEC.433.32/
N-412.11/W-135.46/MW 69/VIS 37/

8/12 4432 PREPEN RIG/REPR SWIVEL/TRIP FOR NEW BIT/REPR ROTARY CLUTCH/
REPR HOOK ON BLOCKS/MW 68/VIS 35/

8/13 4669 SD SH D (237) DRLG/COMPLETE THE RIG REPR/DRLG 8-3/4" HOLE FRM
4432-4669/SURV @ 4578' 1°45', N09°E/TVD 4537.71/SEC.440.46/N-
419.95/W-133.88/MW 68/VIS 42/

8/14 4822 SD SH D (158) REAMING/DRLG 8-3/4" HOLE FRM 4669-4700/REPR RIG
FOR 2½ HRS/DRLG FRM 4700-4822/TRIP FOR BIT & BHA/REAM FRM 4690-4822/
SURV @ 4822, 0°30', N-39°E/TVD 4781.66/SEC.444.70/N-424.55/W-133.17/
MW 68/VIS 37/

8/15 4965 SD SH D (183) ATTEMPT TO FREE STUCK PIPE/DRLG 8-3/4"
HOLE FRM 4822-4965/LOST RTNS @ 4965/FU TO 4790; PIPE STUCK/WRK
STUCK DP & PMP TOT OF 1700 BELS MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTEMPT TO FILL HOLE; COULD NOT FILL/
MRU DIA-LOG/RAN FREE POINT/FREE POINT SHOWD PIPE STUCK @ 703 &
826/PIPE FREE @ 638 INSIDE 13-3/8" SURF CSG/STG SHOT TOOL JT @ 638/
COULD NOT BACK OFF/RESHOT @ 638/BK OFF DP @ 638/PULLED 130,000#/ DN
DP FRM 638-577/POH w DP/BTM JT COVERD w CMT/MU FISHING TOOLS & RIH
OVERSHOT, BMPR SUB, JARS, DC's/TAG FILL @ 538 w TOP OF FISH @
638/CO FILL TO TOP OF FISH @ 638 w NO RTNS/ATTEMPT TO GET OVR FISH/
PUSHD FISH DN HOLE/CK TO SEE FISHING TOOLS FREE, OK/TOP OF FISH @
726; BTM @ 4878/MW 68/VIS 70/

8/17 4965 SD SH FISHING DP/ATTEMPT TO WASH DN OVR 4" DP w 7-5/8"
OVERSHOT TO 842 w NO RTNS/POH & LD FISHING TOOLS/RIH w 12¾" BIT DC's
& BMPR SUB/STPD @ 539/POH & MU 9-5/8" OVERSHOT, BMPR SUB, JARS, DC's
& ACCELERATOR/RIH & WRK THRU TIGHT SPOT @ 539-542/CO TO 870 w NO
RTNS/PREP TO CALIPER 13-3/8" CSG; POSSIBLY COLLAPSED OR PARTD/MW 70/
VIS 85/

8/18 4965 POH w IB/RIG UP DIA LOG & RUN CSG INSPI LOG/CORG PARTED @ 544/
RIH w 1 CONE 12¾" BIT, UNABL TO GET INTO CSG, RUN DN BESIDE 13-3/8
TO 677'/WAIT ON I.B./RUN 11½" IB TO 544, SET DN 10,000#/POH w IB/
DIVISION OF OIL & GAS
History of Well

NWLBU #8-5
Sec.13,T13,R4S,SBB&M

1981

8/19 4965 PREPNG TO PMP TEMP BLOCK "60" PILL/RIH OPN ENDED TO 544'/
MIX & PMP 300 BBL OF LCM, 200 BBLs w 27# PER BBL OF LCM, 100 BBLs
w 15-17# PER BBL OF LCM, NO RTNS/RIH w 10½" IB w 12½ STAB ABOV IT,
TO 544/IB SHOWS CSG IS 5'/+ OUT IN HOLE/RIH OPN ENDED TO 544, PREP TO
MIX TEMP BLOCK "60"/

8/20 4965 PREPNG TO P&A/MX & PMP 60 BBL OF TEMP BLOCK 61 @ 518/POH
WAIT 2 HRS, ATTMT TO FILL HOLE, HOLE WD NOT FILL/RIH TO 518,
PMP 30 BBLs OF TEMP BLOCK 61, POH/RIH w 4-3/4" SWEDGE, 1 JT
CROOKED 4" DP, 8-3/4" STAB ON 5 - 6" D.C./ATTEMPT TO GET INTO
SHIFTED CSG/UNABL TO DO SO/RUN 10-1/4" IB TO 544, POH IB SHOWS
CSG 4 - 5" INSIDE/LD ALL TOOLS & PREP TO P&A/

8/21 4965 TD WOC/w OPN ENDED DP @ 564, HALIB PMP 100 SX "G" CMT
w .25% THIX SET "A", .25% THIX SET "B", 25# PER SX GIL, ½# PER SX
FLOCELE w 2% CaCl₂/WOC 4 HRS, RIH TO 564 NO PLUG/PMP 4, 50 SX PLUGS,
1 EVERY 2 HRS/WOC FOR 4 HRS/RIH 541, PMP 50 CF FLO-CHECK, 100 SX
CMT PLUG/POH & WOC/

8/22 4965 TD, PSA ON 8-21-81/TAG CMT PLUG @ 301, WITNESS & APPRVD BY
D.O.G./SPOT CMT FRM 181-SURF/FULL BOP,CUT OFF WELL HD & CSG 5' BELOW
GRND LEVEL/RIG DN RIG PREP TO MOVE TO NWLBU #8-7/
L. B. Carroll, Jr., Agent  
SUN OIL COMPANY  
P. O. Box 55060  
Valencia, CA 91355  

Long Beach  Calif.  
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T48S, R. 13W S.E. B. & M. Long Beach Field, in Los Angeles County, were witnessed on 8-21-81 by G. W. Stark, Engineer, representative of the supervisor, was present from 0810 to 0940. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662', parted @ 544', Junk below 648'. TD 4965'. Plugged w/cem 548'-301' & 185'-8'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of abandonment.

DECISION: APPROVED.

NOTE:  DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

GWS: dh

cc: Update  
EDP

M. G. MEFFERD  
State Oil and Gas Supervisor

By  
Deputy Supervisor

R. A. YBARRA

OG109(12-80-15M)
DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator Sum Oil Company
Well No. NWLB21 8-5
API No. 037-22295
Sec. 13, T. 45, R. 13W, S8 B&M
Field Long Beach, County Los Angeles. On 8-21-81,
Mr. GW Stark, representative of the supervisor was present from 0810 to 0940.
There were also present D. Rodgers DF

Casing record of well: 20" cemented 13 3/8" cemented 66 2/3, parted at 544', Jumps below 648', TD 4965, plugged with cement 548.30"1' 285' 85'.

The operations were performed for the purpose of ( )

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @__________ is approved.

Hole size: _____ " fr. ________' to ________, ________" to ________, & ________" to ________.

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Casing/tubing recovered: _______" shot/cut at _______, ______, ______ pulled fr. _______

Junk (in hole):

Hole fluid (bailed to) at _______. Witnessed by

<table>
<thead>
<tr>
<th>Mudding</th>
<th>Date</th>
<th>Bbls.</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engr.</th>
</tr>
</thead>
</table>
| Existing Hole mud used to fill space 301'-185'.
| weight 72#cf | 350 | 50 | US Circulation material Added.

Cement Plugs | Placing | Placing Witnessed | Top Witnessed
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Sx./cf</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>8/21/81 500 sx</td>
<td>DP @ 548</td>
<td>8/30/81</td>
<td>Reported by Rodgers</td>
</tr>
<tr>
<td>8/21/81 100 sx</td>
<td>DP @ 185</td>
<td>0910</td>
<td>GW Stark</td>
</tr>
</tbody>
</table>

OGD10 (2-75-GSR1-6M)
Deficiencies Corrected
none.

Deficiencies to be Corrected
none.

Contractor: Atlantic Oil Company
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 31, 1981

Your proposal to abandon well NWLB 8-5, A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M., Long Beach field, Northwest Extension area, pool, Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. All portions of the hole not plugged with cement shall be filled with clay base mud fluid having a minimum density of 72 lb/ cu ft and a minimum gel-shear strength of 25 lb/ 100 sq ft.

2. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the placing, location and hardness of the cement plug from 648' to 440'.
   b. To witness the placing of the cement surface plug.
   c. To inspect and approve the clean-up of the well site before approval of abandonment will be issued.

H0:dh

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
Notice of Intention to Abandon Well
This notice must be given at least five days before work is to begin.

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLB# 8-5, API No. 037-22295, Sec. 13, T. 45S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County, commencing work on August 20, 1981.

The present condition of the well is:

1. Total depth: 4965' (8 3/4" Hole)
2. Complete casing record, including plugs and perforations:
   13 3/8", 48#, H-40, ST&C csg shoe @ 662'; cmt'd w/903 CF CL 'G' cmt w/2% CaCl₂ 13 3/8" csg parted @ 540'; 4" DP Fish from 638' to 4790'
3. Last produced: Never Produced
   (Date) (Oil, B/D) (Gas, Mcl/D) (Water, B/D)
   or
4. Last injected: Never Injected
   (Date) (Water, B/D) (Gas, Mcl/D) (Surface pressure)

5. Well never logged or tested - stuck drill pipe
6. Stratigraphic markers:
   N/A
7. Formation and age at total depth: N/A
8. Base of fresh water sands: N/A

The proposed work is as follows:

1. RIH w/4" D P open-ended to 540'
2. Spot 300 sx of CL 'G' cmt w/0.25% Thix-set 'A', 0.25% Thix-set 'B', 25#/sx Ginosite, ½#sx Flocele, & 2% CaCl₂
3. Tag TOC @ 440' or higher
4. Spot column of 68PCF fresh water-gel mud to 100' from surface
5. Spot additional cement plug from 100' to surface
6. Cut off 13 3/8" casing
7. RDMO
8. Restore surface to original conditions

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 25322 West Rye Canyon Road
Valencia, California 91355
Telephone Number: (805) 257-6200

Sun Production Company
By: [Signature]
(8-20-81)
Type of Organization: Corporation

OG108 (12-73-GSR1-15M)
L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach  Calif.
September 14, 1981

Your operations at well NWLBU 8-5, Sec. 13, T.4S, R.13W, were witnessed on 8-1-81 by W. E. Brannon, Engineer, representative of the supervisor, was present from 0600 to 1100. There were also present D. Rodgers, Drilling Foreman. Present condition of well: 20" cem 56'; 13-3/8" cem 662'. TD 665'.

The operations were performed for the purpose of Testing the blowout prevention equipment and installation.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
1. Pressure guage was on kill line.
2. Pump unable to hold pressure above 500#.
3. Adjustable choke had slow leak.
4. Remote control box was not hooked up.
5. First test failed.

CONTRACTOR: Atlantic Oil Company

WEB: dh

cc: Update
Dispatcher Clerk

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor

R. A. YBARRA
OPERATION: Testing (inspecting) the blowout prevention equipment and installation.

DECISION: The blowout prevention equipment and installation are approved.

Proposed Well Ops: drill

Hole size: 24" fr. 0' to 20', 17 1/2" to 665' 6" to __________

Casing record of well: 20" Cem 5L; 13 3/8" Cem 662' TD 665'

Casing Anchor String Only

Size Weight(s) Grade(s) Shoe at CP at
13 3/8" 48# H-56 662

Cement Details
Top of Cement
5433 0

TEST DATA

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 1500 psi
Total Rated Pump Output 150 psi
Distance From Well Bore 75 ft.

1 Hyd. 80 gal. 750 psi
2 gal. psi

CONTROL STATIONS

Manif. at accum. unit
Remote at Drlr's stn.

EMERG. BACKUP SYST. Wkg. Fl.
N2 Cyl No. Tpe:
22700 gal.
3200 gal.
4 gal.
5 gal.
6 gal.

OTHER:

AUXILIARY EQUIPMENT


X Fill-Up Line
X Kill Line 2" 3000 x 1200
X Control Valve(s) 1 3000 x 1200
X Check Valve(s) 1 3000 x 1200
X Auxil. Pump Connec.
X Choke Line 2" 3000 x 1200
X Control Valve(s) 1 3000 x 1200
X Pressure Gauge
X Adjustable Choke(s) 2" 3000
X Bleed Line 2" x
X Upper Kelly Cock
X Lower Kelly Cock
X Standpipe Valve
X Standpipe Pressure Ga.
X Pipe Safety Valve 4 3000 x 1200
X Internal Preventer

HOLE FLUID MONITORING EQUIPMENT

Calibrated Mud Pit Aud. Vis. A
Pit Level Indicator x
Pump Stroke Counter x
Pit Level Recorder
Flow Sensor
Mud Totalizer
Calibrated Trip Tank

REMARKS:

Hole Fluid Type Weight Storage-Pits
Clay base mud 9.5# 270 gal
DEFICIENCIES—TO BE CORRECTED  NONE

DEFICIENCIES—CORRECTED
1- Pressure gauge was on kill line
2- Pump unable to hold pressure above 500#
3- Adjustable choke had slow leak
4- Remote control box was not hooked up.
5- First test failed

CONTRACTOR Atlantic Oil Co
REPORT OF CORRECTION OR CANCELLATION

Long Beach, California
June 25, 1981

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
25322 W. Rye Canyon Road
Valencia, CA 91355

In accordance with your notice of June 8, 1981

the following change pertaining to your well NWLB 8-5 (037-22295)

Long Beach field, Los Angeles County,
Sec. 13, T. 4S, R. 13W, S.B. B. & M. is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. _______ dated _______ has been corrected as follows:

☐ Your notice to _______ dated _______ (Drill, abandon, etc.)

and our report No. P _______ issued in answer thereto, are hereby cancelled
inasmuch as the work will not be done. If you have a drilling bond on file covering
this notice it will be returned. No request for such return is necessary.

☐ Other: Bottom Hole Location: 415' North and 115' West from
surface location.

HO:eb

cc: Update Center
EDP
Blanket Bond

State Oil and Gas Supervisor

By
Deputy Supervisor

for: R. A. Ybarra

OG 165 (1-77-GSR1-3M)
DIVISION OF OIL AND GAS

LONG BEACH Calif.

A notice to you dated November 25, 1980, stating the intention to Drill NW LONG BEACH UNIT #8-5, API No. 037-22295, (Drill, rework, abandon) (Well name and number)
Sec. 13, T. 4S, R. 13W, B. & M., LONG BEACH Field, Los Angeles County, should be amended because of changed conditions.

The present condition of the well is as follows: The well has not been drilled as yet.

Total depth

Complete casing record including plugs and perforations:

We now propose BHL: 415' North & 115' West from surface location.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. Rye Canyon Road
Valencia California 91355
Telephone Number 805/257-6200

Sun Oil Company (Delaware)
Type of Organization Corporation
By L. B. Carroll, Jr. 6/8/81
Signature L. B. Carroll, Jr.

OG123 (7-76-GSR1-9M)
REPORT OF CORRECTION OR CANCELLATION

Mr. L. B. Carroll, Jr., Agent
SUN OIL COMPANY
23928 Lyons Avenue
Newhall, CA 91321

Long Beach, California
December 1, 1980

In accordance with your (corrected copy) Notice of Intention to Drill

the following change pertaining to your well No. NWLBU 8-5 (037-22295),
Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field,
Los Angeles County, District No., is being made in our records:

☑ The corrected location is 535' North & 763' West @ Right Angle from intersection
C/L San Antonio Drive & Del Mar Ave.

☐ The corrected elevation is

☐ Report No., dated , has been

corrected as follows:

☐ Your notice to , (Drill, abandon, etc.)

and our report No. P , issued in answer thereto, are hereby cancelled
inasmuch as the work will not be done. If you have a drilling bond on file covering
this notice it will be returned. No request for such return is necessary.

☑ Other: Proposed coordinates from surface location @ TD 393' S & 439' E

State Oil and Gas Supervisor

Blanket Bond

cc: Update Center - EDP
Sun Oil Co.

OGD165 (3-75-32451-3M)

By: J. A. Ybarra, Deputy Supervisor
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. (Assigned by Division), Sec. 13, T.4S., R.13W., SB. B. & M., Long Beach Field, Los Angeles County. Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

Do mineral and surface leases coincide? Yes __ No __ X __ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 535 feet North and 763 feet West

at right angles to side line from the intersection of centerlines of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes __ No __ X __

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

415 feet South and 439 feet East

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing that is 10 feet above ground.

PROPOSED CASING PROGRAM

<table>
<thead>
<tr>
<th>SIZE OF CASING</th>
<th>WEIGHT</th>
<th>GRADE AND TYPE</th>
<th>TOP</th>
<th>BOTTOM</th>
<th>CEMENTING DEPTHS</th>
<th>CALCULATED FILL BEHIND CASING</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-3/8&quot;</td>
<td>48#</td>
<td>H-40</td>
<td>Surface</td>
<td>650'</td>
<td>650'</td>
<td>Surface</td>
</tr>
<tr>
<td>9-5/8&quot;</td>
<td>36#</td>
<td>K-55; S-80</td>
<td>Surface</td>
<td>5950'</td>
<td>5950'</td>
<td>1500'</td>
</tr>
</tbody>
</table>

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion: Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD

Estimated total depth 5876' TVD

(Name, depth, and expected pressure) Pres. ≈ 800 PSI

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator
SUN OIL COMPANY (DELAWARE) CORPORATION

Address
23928 LYONS AVENUE

City
NEWHALL, CALIFORNIA

Zip Code
91321

Telephone Number
805/259-2440

Name of Person Filing Notice
L. B. CARROLL

Signature

Date

DISTRICT ENGINEER

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: City of Long Beach
Contact Person: G. H. Felgemaker
Address: 333 West Ocean Blvd.
Long Beach, California 90802
Phone: (213) 590-6894

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes □ No □
Remarks: ________________________________
______________________________
______________________________

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.
(2) 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well **NW LONG BEACH UNIT #8-5**, API No. **(Assigned by Division)**
Sec. 13, T4S, R13W, SB B. & M., Long Beach Field, Los Angeles County.
Legal description of mineral-right lease, consisting of **149** acres, is as follows: **(Attach map or plat to scale)**

Do mineral and surface leases coincide? Yes ___ No. X ___ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well **535 feet North** and **763 feet West**

at right angles to trail line from the intersection of centerlines of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes □ No X □

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

**393 feet South and 439 feet East**

Elevation of ground above sea level **45.5 feet**.

All depth measurements taken from top of **Kelly Bushing** that is **10 feet** above ground.

**PROPOSED CASING PROGRAM**

<table>
<thead>
<tr>
<th>SIZE OF CASING</th>
<th>WEIGHT</th>
<th>GRADE AND TYPE</th>
<th>TOP</th>
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<th>CEMENTING DEPTHS</th>
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<tr>
<td>10-3/8&quot;</td>
<td>48#</td>
<td>H-40</td>
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<td>650'</td>
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<tr>
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<td>36#</td>
<td>K-55; S-80</td>
<td>Surface</td>
<td>5950'</td>
<td>5950'</td>
<td>1500'</td>
</tr>
</tbody>
</table>

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion **Lower Alamitos @ 4311' TVD; Brown @ 4726' TVD**

Estimated total depth **5876' TVD**

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator
SUN OIL COMPANY (DELWARE)  Type of Organization (Corporation, Partnership, Individual, etc.)  CORPORATION

Address
23928 LYONS AVENUE  City  NEWHALL, CALIFORNIA  Zip Code  91321

Telephone Number  Name of Person Filing Notice
805/259-2440  L. B. CARROLL

257 4TH DISTRICT ENGINEER

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, California 90802

Phone: (213) 590-6894

---

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes ☐ No ☐

Remarks:

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CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

1. 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

2. 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
REPORT ON PROPOSED OPERATIONS

Mr. L. E. Carroll, Jr., Agent
SUN OIL CO.
23928 Lyons Ave.
Newhall, CA 91321

Long Beach, California
Nov. 3, 1980

Your proposal to drill well NWLB 8-5,
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S.B., B. & M.,
Long Beach field, Old area, -- pool,
Los Angeles County, dated 10/23/80, received 10/24/80, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class III B, 3M requirements, or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Sufficient cement shall be used to fill back of the 9-5/8" casing to a depth of 1500' or cemented through cementing ports at approx. 1700' with sufficient cement to fill to a depth of 1500'.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 13-3/8" casing.
   b. A test of the effectiveness of the 9-5/8" shutoff above the lower Alamitos zone.

cc Update Center - EDP
Sun Oil Co.

Blanket Bond

M. C. MEFFERD, State Oil and Gas Supervisor
By ____________________________
R. A. YBARRA

A copy of this report and the proposal must be posted at the well site prior to commencing operations.
DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. 137-22295, Assigned by Division Sec., T. 4S, R. 13W, SB. B. & M., Long Beach Field, Los Angeles County.

Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

- See Attached -

Do mineral and surface leases coincide? Yes No X If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 535 534 feet North along section property line and 763 767 feet West (Direction) (Cross out one)

at right angles from the intersection of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes No X

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: 393 324 415 South East 439 449 115 feet West (Direction) (Correction dated 11-25-80)

Elevation of ground above sea level 46 5 feet.

All depth measurements taken from top of Kelly Bushing that is 10 feet above ground. (Derrick Floor, Rotary Table, or Kelly Bushing)

PROPOSED CASING PROGRAM

<table>
<thead>
<tr>
<th>SIZE OF CASING INCHES API</th>
<th>WEIGHT</th>
<th>GRADE AND TYPE</th>
<th>TOP</th>
<th>BOTTOM</th>
<th>CEMENTING DEPTHS</th>
<th>CALCULATED FILL BEHIND CASING</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot;</td>
<td>48#</td>
<td>K-55</td>
<td>Surface</td>
<td>650'</td>
<td>650' Surface</td>
<td></td>
</tr>
<tr>
<td>9-5/8&quot;</td>
<td>36#</td>
<td>K-55 &amp; S-80</td>
<td>Surface</td>
<td>5900'</td>
<td>5900' 1500'</td>
<td></td>
</tr>
</tbody>
</table>

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion: Lower Alamitos @ 4315' TVD, Brown @ 4730' TVD. Estimated total depth 5860' TVD.

(Name, depth, and expected pressure) Press 800 PSI.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator: SUN OIL COMPANY (DELAWARE) Type of Organization: Corporation

Address: 23928 Lyons Avenue City: Newhall, California Zip Code: 91321

Telephone Number: 805/259-2440 Name of Person Filing Notice: L. B. CARROLL, JR.

Signature: By: Date: 10/23/80

Producer: This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (2-79-DWRR-10M)

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: CITY OF LONG BEACH
Contact Person: G. H. FELGEMAKER
Address: 333 WEST OCEAN BLVD.
LONG BEACH, CALIFORNIA 90802
Phone: (213) 590-6894

FOR DIVISION USE ONLY

District review of environmental document (if applicable)?  Yes □ No □
Remarks: 

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

1. 300 feet of the following:
   A. Any building intended for human occupancy that is not necessary to the operation of the well; or
   B. Any airport runway.

2. 100 feet of the following:
   A. Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   B. Any navigable body of water or watercourse perennially covered by water;
   C. Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   D. Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. A written request shall contain justification for such an exception.
### Decl. Corr. 14 Deg. 30 Min. East

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<thead>
<tr>
<th>Measure</th>
<th>Depth</th>
<th>Drift Angle</th>
<th>Drift Bearing</th>
<th>Vertical Depth</th>
<th>Vertical Sub-Sea</th>
<th>Total Coordinates</th>
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<td>DEPTH</td>
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<td>4332</td>
<td>0045</td>
<td>N54 00W</td>
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<td>4518</td>
<td>0030</td>
<td>S26 00E</td>
<td>4467.5</td>
<td>-4411.5</td>
<td>471.1 N</td>
<td>95.3 W</td>
</tr>
</tbody>
</table>

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD
Mr Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049

Your report of abandonment of well “Nwlbu” 9-2, A.P.I. No. 037-13525, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 4/21/2014, received 5/6/2014, has been examined in conjunction with records filed in this office. We have determined that the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and filing of well records. The plugging and abandonment of the well is approved.

The determination of this well plugging and abandonment is based on the following information, consistent with California Public Resources Code (PRC), and the California Code of Regulations (CCR):

1. Surface plugging completed on 1/7/2014.
2. Site inspection made and approved on 1/15/2014.

Kenneth A. Harris Jr.  
State Oil and Gas Supervisor

By

For Daniel J. Dudak, District Deputy

EPM:epm

cc: Long Beach Dept. of Gas & Oil

OG159
## CHECK LIST – RECORDS RECEIVED AND WELL STATUS

### COMPANY
- **Westates Petroleum Corp.:**
  - API#: 037-22512
  - County: Los Angeles
- **Well:** "NWLB 8-7"
  - Sec. 13, T. 4S, R. 13W, S. B. B. & M.
  - Field: Long Beach

### RECORDS RECEIVED

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Status</th>
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<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>1/8/2014 (2)</td>
<td>Producing</td>
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<tr>
<td>History (Form OG103)</td>
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<td>Abandoned</td>
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<tr>
<td>Core Record (Form OG101)</td>
<td></td>
<td>Reabandoned</td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
<td></td>
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<tr>
<td>Sidewall Samples</td>
<td></td>
<td></td>
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<tr>
<td>Date final records received.</td>
<td></td>
<td></td>
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<tr>
<td>Electric Logs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
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</tr>
</tbody>
</table>

### EFFECTIVE DATE: 12/24/13

### REMARKS: Abandoned

### WELL TYPE

- **Oil**
- **Gas**
- **Water Source**
- **Observation**
- **Exploratory**
- **Dry Hole**

### ENGINEERS CHECK LIST

- Summary, History & Core Record (Dupl.)
- Electric Log
- Operator's Name
- Signature
- Well Designation
- Location
- Elevation
- Notices
- "T" Reports
- Casing Record
- Plugs
- Directional Survey
- Production/Injection (FAP Codes: 4/12 - 03 - )
- E Well on Prod., enter EDP
- Surface Inspection Required
- Surface inspection Waived (Island)
- Well site restoration deferred (common cellar)
- Final Letter Required
- Other:

### CLERICAL CHECK LIST

- Location change
- Elevation change
- Form OGD121
- Form OGD150b (Release of Bond)
- Duplicate logs to archives
- Notice of Records Due
- EDP: 5-2-14
- Final Letter (OG159)
- Update Center: 5-2-14

### FIELD CHECK LIST

Date Surface Inspection Completed: 12/19/2013

### RECORDS NOT APPROVED

(Reason:)

### RECORDS APPROVED

(Signature:)

RELEASE BOND

Date Eligible

(Use date last needed records received.)

MAP AND MAP BOOK

OGD2 5/16/01 CYPRESS
REPORT ON OPERATIONS

Mr Mark Pender
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Cypress, California
January 29, 2014

Your operations at well "Nwibu" 8-7, A.P.I. No. 037-22512, Sec. 13, T. 04S, R. 13W, SB B&M., Long Beach field, in Los Angeles County, were witnessed on 12/24/2013, by Cary Wicker, a representative of the supervisor.

The operations were performed for the purpose of re-abandonment.

DECISION: APPROVED

NOTE: The required Class II3M blowout prevention equipment was inspected and approved on 11/20/2013.

DEFICIENCIES NOTED AND CORRECTED: None

BI/kj

c: Update
AllenCo

Tim Kustic
State Oil and Gas Supervisor

By

Daniel J. Dudák, District Deputy

OG109 (Rev. 10/2011)
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator: C.R.G. Properties, LTD
Well No.: "Nwibu" 8-7
API No.: 037-22512
Sec. 13
T. 04 S
R. 13 W
SB B&M Field: Long Beach
County: Los Angeles
On: 12-24-2013
Mr. / Ms.: Cary Wicker
representative of the supervisor, was present from 0900 to 1215.

There were also present: Mick Beyer (Allenco)

Casing record of well: 13 3/8" cem 1122' 9 5/8" cem 4715', CP 100', 210', and 2440'; 7" ld 4626'-5847'. TD 5850'. Plugged w/ cem 5425' - 3522', 3058' - 2852', 2440' - 2136', 214' - 6'.

The operations were performed for the purpose of: 3 (Re-abandon)

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @ are approved.

Hole size: 17 1/2' fr. 50' to 1122', 12 1/4' to 4715' & 11' to 5850'

Casing

<table>
<thead>
<tr>
<th>Size</th>
<th>Wt.</th>
<th>Top</th>
<th>Bottom</th>
<th>Date</th>
<th>MO-Depth</th>
<th>Volume</th>
<th>Annulus</th>
<th>Casing</th>
<th>Squeezed</th>
<th>Final \ Pressure</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 5/8&quot;</td>
<td>36#</td>
<td>0'</td>
<td>4715'</td>
<td>12/3/2013</td>
<td>tbg@2440'</td>
<td>180 cf</td>
<td>2218±</td>
<td>2136'</td>
<td>71 cf</td>
<td>1600 psi</td>
<td>2440'-2450'</td>
</tr>
<tr>
<td>9 5/8&quot;</td>
<td>36#</td>
<td>0'</td>
<td>4715'</td>
<td>12/6/2013</td>
<td>tbg@214'</td>
<td>234 cf</td>
<td>6'</td>
<td>6</td>
<td>143 cf</td>
<td>600 psi</td>
<td>100' - 110', 210'</td>
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</table>

Casing/tubing recovered: Shot/cut at Pulled fr.

Junk (in hole):
Hole fluid (bailed to) at Witnessed by

"mud interval displaced upward 70'± by subsequent cement plug"

Mudding (bailed to):

<table>
<thead>
<tr>
<th>Mudding</th>
<th>Date</th>
<th>bbls</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engineer</th>
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<tbody>
<tr>
<td>72 / 25 #</td>
<td>12/2/2013</td>
<td>32</td>
<td>3580*</td>
<td>3069*</td>
<td>2450'</td>
<td>P. Kaufman</td>
</tr>
<tr>
<td>72/27</td>
<td>12/3/2013</td>
<td>31</td>
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<td></td>
<td></td>
<td>R. Morian</td>
</tr>
<tr>
<td>72/35</td>
<td>12/4/2013</td>
<td>146</td>
<td>2136'</td>
<td></td>
<td></td>
<td>T. Tyler</td>
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Note: 12 I3M - ZA 11/20/13 C/O @ 5425'; 11-26-2014; M. Chavez (w/ B. Irick approval).

Cement Plugs

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<thead>
<tr>
<th>Date</th>
<th>Sx/cf</th>
<th>MO &amp; Depth</th>
<th>Time</th>
<th>Placing Witnessed</th>
<th>Depth</th>
<th>W/Sample</th>
<th>Date &amp; Time</th>
<th>Engineer</th>
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<tr>
<td>11-27-2013</td>
<td>346 CF</td>
<td>Tbg@5425'</td>
<td>1545</td>
<td>M. Chavez</td>
<td>3680'</td>
<td>2000#</td>
<td>12/2/13 0715</td>
<td>P. Kaufman</td>
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<tr>
<td>12/2/2013 **</td>
<td>25 cf</td>
<td>tbg @ 3580'</td>
<td>1100</td>
<td>P. Kaufman</td>
<td>3522'</td>
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<td>12/2/2013</td>
<td>78 cf</td>
<td>tbg @ 3585'</td>
<td>1115</td>
<td>P. Kaufman</td>
<td>2852'</td>
<td>2000#</td>
<td>12/3/13 0745</td>
<td>R. Morian</td>
</tr>
<tr>
<td>12/3/2013</td>
<td>180 cf</td>
<td>Tbg @ 2440'</td>
<td>1200</td>
<td>R. Morlan</td>
<td>2136'</td>
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<tr>
<td>12/6/2013</td>
<td>234 cf</td>
<td>tbg @ 214'</td>
<td>1345</td>
<td>P. Kaufman</td>
<td>6'</td>
<td>visual</td>
<td>12/24/2013 1030</td>
<td>C. Wicker</td>
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</table>

** press test 9" csg 12/2/13 0820-0835, 690-660 psi
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD
Well "NWLB" 8-7
A.P.I. No. 937-22512
Field Long Beach
Sec. 13
T. 04S
R. 13w
County Los Angeles
Name Mick Beyer
Title Operations Manager
Address 2109 Gundry Ave. Signal Hill, Ca. 90755
Signature

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

11-20-13 M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amihussin w/DOGGR - Secured Well

11-21-13 R.I.H. W/5 ½" Scraper on 2 7/8" bbg. tagged down at 4110' - Circ. with water w/returns of oily water and gas – Witnessed by Z. Amihussin w/ DOGGR – P.O.H. - Secured well

11-22-13 R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H. – Secured

11-25-13 to 11-26-13 R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.


12-03-13 R.I.H. Tagged cement at 2850' – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450' to 2440' – P.O.H. - R.I.H.W/Tbg. Tail at 1914' mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - secured well


12-05-13 TO 12-06-13 Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100’ – R.I.H. W/tbg. Tail at 210' mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H. - installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.

12-24-13 Dug down around well and cut casing ' below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D. Plate - Backfilled well location - Job complete.

SUBMIT IN DUPLICATE

DOGGR
Received

JAN - 8 2014

OG103 (6/97/GSR/SM)
Printed on recycled paper.
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD
Field Long Beach
Well "NWILBU" 8-7
A.P.I. No. 037-22512
Date 12-15-13
Address 2109 Gundry Ave. Signal Hill, Ca. 90755

County Los Angeles
Sec. 13
T. 04S
R. 13w
sbB &M.
Name Mick Beyer
Title Operations Manager
(Person submitting report)
(Principal, Secretary, or Agent)

Signature

Telephone Number 562 986-6100

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

11-20-13 M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amilhussin w/DOGGR - Secured Well

11-21-13 R.I.H. W/5 ½" Scraper on 2 7/8" bbg. tagged down at 4110' - Circ. with water w/returns of oily water and gas – Witnessed by Z. Amilhussin w/ DOGGR - P.O.H. - Secured Well

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12-03-13 R.I.H. Tagged cement at 2850’ – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450’ to 2440’ – P.O.H. - R.I.H. w/ Tbg. Tail at 1914’ mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft (47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Mortan w/ DOGGR - Secured well


12-05-13 TO 12-06-13 Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95’ to surface - Shot perforation from 110’ to 100’ – R.I.H. W/Tbg. Tail at 210’ mixed and pumped 140 cu/ft. (123 sxs) class G cement – cement to surface – P.O.H. - installed wellhead flange and mixed and pumped 95 cu/ft (83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/ DOGGR - R.D.M.O.

12-24-13 Dug down around well and cut casing ’ below surface – C. Wicker w/ DOGGR witnessed surface tag and welding of I.D. Plate – Backfilled well location - Job complete.

DIRECTOR’S OFFICE
JAN-8 2014

SUBMIT IN DUPLICATE

OG103 (6/97/GSR/SM)
Printed on recycled paper.
For cementing in well NWLBU 8-7 per the program contained in the Corrected Permit of July 22, 2013:

The bottom plug was to be above the 7" liner. Top of liner @ 4626'. Bottom plug was to be from 3831'-4626' within a 9 5/8" 36# casing.

4626'-3831' = 795' linear
9 5/8" 36# casing conversion factor: 0.4340 cf/lf
795lf x 0.4340cf/lf = 345cf

346cf was pumped on 11/27/2013.
25cf was pumped on top of 3580' tag on 12/02/2013.

HOWEVER

Tubing tail was at 5423'.
5423'-4626' (TOL) = 797' in 7" casing
7" 26# casing conversion factor: 0.2148 cf/lf
797lf x 0.2148 cf/lf = 171cf in 7" casing

346cf-171cf = 175cf in 9 5/8" casing
9 5/8" 36# casing conversion factor: 2.3038 lf/cf
175cf x 2.3038 lf/cf = 403lf
4626'-403' = 4223'

4223' SHOULD have been the tag after pumping of 346cf.
4223' - 3580' (actual tag) = 643'
643lf x 0.4340cf/lf = 279cf (where is this from?)

OLD PLUG FROM 4242'-4423' IN 9 5/8" CASING
4242'-4242' = 181'
181lf x 0.4340 cf/lf = 78cf (78.5cf) volume of plug

4 1/8" drill bit used to drill through plug.
4 1/8" hole conversion: 0.0928cf/lf or 10.7752 lf/cf
181lf x 0.0928 cf/lf = 17cf (16.8cf) volume of hole drilled through plug
78cf-17cf = 61cf cement left in hole from plug.

279cf-61cf = 218cf (fill/cement ?) unaccounted for in casing.
BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: C.R.G. Properties, LTD
Well: "Nwibu" 8-7
Field: Long Beach
County: L.A.

VISITS:
1st: 11/20/13 Z. Amilhussein (1630 to 1700)
2nd: (to )

Contractor: Allenco
Rig #: 2
Contractor's Rep. & Title: I. Sandoval, Rig Manager
Casing record of well:

OPERATION: Testing/inspecting the blowout prevention equipment and installation. Critical well? Y ☐ N ☐
DECISION: The blowout prevention equipment and its installation on the 9 " casing are approved.

Proposed Well Ops: 1.
MACP: psi

REQUIRED BOPE CLASS:

CASING RECORD OF BOPE ANCHOR STRING

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
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</table>

BOP STACK

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</thead>
<tbody>
<tr>
<td>Rd 2 &amp; 7/8</td>
<td>Townsend</td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
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<td>Rd 2 &amp; 7/8</td>
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</tbody>
</table>

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure psi
Total Rated Pump Output gpm
Fluid Level
Distance from Well Bore 25 ft. ok

<table>
<thead>
<tr>
<th>Accum. Manufacturer</th>
<th>Capacity</th>
<th>Precharge</th>
<th>Fill-up Line</th>
<th>Kill Line</th>
<th>Control Valve(s)</th>
<th>Check Valve(s)</th>
<th>Aux. Pump Cnct.</th>
<th>Choke Line</th>
<th>Control Valve(s)</th>
<th>Test Press.</th>
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<tbody>
<tr>
<td>1</td>
<td>gal.</td>
<td>psi</td>
<td>x</td>
<td>2</td>
<td>3M</td>
<td>2</td>
<td>3M</td>
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</tr>
<tr>
<td>2</td>
<td>gal.</td>
<td>psi</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

CONTROL STATIONS

Manifold at accumulator unit
Remote at Driller's station
Other: hand pump

EMERG. BACKUP SYSTEM

N2 Cylinders 1 L: 55 " 2,750psi 10 gal.
Other: 2 L= gal.
3 L= gal.
4 L= gal.
5 L= gal.
6 L= gal.

<table>
<thead>
<tr>
<th>TOTAL: 10</th>
<th>gal.</th>
<th>x</th>
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HOLE FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Alarm Type</th>
<th>Audible</th>
<th>Visual</th>
<th>Class</th>
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</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
<td></td>
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</tr>
<tr>
<td>Pit Level Indicator</td>
<td></td>
<td>B</td>
<td></td>
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<tr>
<td>Pump Stroke Counter</td>
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<td></td>
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<tr>
<td>Pit Level Recorder</td>
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<tr>
<td>Flow Sensor</td>
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<tr>
<td>Mud Totalizer</td>
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<tr>
<td>Calibrated Trip Tank</td>
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<tr>
<td>Other:</td>
<td></td>
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</table>

Hole Fluid Type
Weight
Storage Pits (Type & Size)

REMARKS AND DEFICIENCIES:
CONTRACTOR: Allenco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND TO BE CORRECTED:

DEFICIENCIES NOTED AND CORRECTED:

3 none
PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL
CORRECTED COPY

Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
148 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to (Re) Abandon well "Nwibbu" 8-7, A.P.I. No. 037-22512, Section 13, T. 04S, R. 13W, SB B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 7/10/2013, received 7/10/2013 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, as defined by this Division’s publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class IIIM, with hydraulic controls, during abandonment operations.
   b. A 3M lubricator for wire line operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tool sheet. A practice drill may be required at the time of the test/inspection.
3. The well is cleaned out to 4626'.
4. The well is plugged with cement from 4626' to 3831'.
5. The proposed cement plug from 2600' to 2180' shall extend from 2500' to at least 2200'.
6. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu.ft and a minimum gel shear strength of 25 lbs./100 sq. ft.
7. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the 9-5/8” casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
8. All casing must be removed from between 5' and 10' below ground level.
9. Well site restoration shall be completed within 60 days following the completion of plugging operations.
10. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
11. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
12. No program changes are made without prior Division approval.

(Continue on page 2)

No Bond Required Bond
cc: Update
     EDP
     AllenCo.
     DOGGR – Dist. 1 (Cypress)

Engineer: Ellen Moser
Office: (714) 816-6847

GN/gn

Tim Kustic
State Oil and Gas Supervisor

By: [Signature]
For: Daniel J. Dudak, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)
Page 1 of 2
13. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the clean-out depth at 4426'.
   c. Witness the placing, location and hardness of the cement plug from 4626' to 3831'.
   d. Witness the mudding operations.
   e. Witness the placing, location and hardness of the cement plug from 3120' to 2820'.
   f. Witness the placing, location and hardness of the cement plug from 2500' to 2200'.
   g. Witness the cement squeeze through the perforations at 200' or through a retainer or packer (if casing integrity is not demonstrated).
   h. Witness the placing, location and hardness of the cement plug from 210' to 0'.
   i. Inspect the restored well site.

NOTE:
1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H₂S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
   a. Base of the Freshwater Sand 2280'
   b. Top of the Upper Gas Zone 2500'
   c. Top of the Wilbur Zone 3120'
   d. Top of the Alamitos Zone 4038'
   e. Top of the Brown Zone 5724'
Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
PERMIT TO CONDUCT WELL OPERATIONS
CRITICAL WELL

Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to (Re) Abandon well "NWlbu" 8-7, A.P.I. No. 037-22512, Section 13, T 04S, R. 13W, SB B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 7/10/2013, received 7/10/2013 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, as defined by this Division’s publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class IIIM, with hydraulic controls, during abandonment operations.
   b. A 3M lubricator for wire line operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. A diligent effort shall be made to clean out to 4242'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft. and a minimum gel shear strength of 25 lbs./100 sq. ft.
5. Prior to shooting any perforations for braided head squeezes, a pressure test of the 9-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
6. The proposed cement plug from 3120' to 2920' shall extend from 3130' to at least 2930'.
7. All casing must be removed from between 5' and 10' below ground level.
8. Well site restoration shall be completed within 60 days following the completion of plugging operations.
9. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
10. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
11. No program changes are made without prior Division approval.

(Continue on page 2)

Tim Kusic
State Oil and Gas Supervisor

By [Signature]
For: Daniel J. Dudak, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.
b. Witness the clean-out depth at 4242'.

    c. Witness the placement, location and hardness of the cement plug from 3130' to 2930'.

    d. Witness the mudding operations.

    e. Witness the placement, location and hardness of the cement plug from 2600' to 2180'.

    f. Witness the cement squeeze through the perforations at 200' or through a retainer or packer (if casing integrity is not demonstrated).

    g. Witness the placement, location and hardness of the cement plug from 210' to 0'.

    h. Inspect the restored well site.

**NOTE:**

1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.

2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.

3. Hydrogen sulfide gas (H₂S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.

4. The operator shall isolate the following zones:

   a. **Base of the Freshwater Sand 2280'**

   b. **Top of the Upper Gas Zone 2500'**

   c. **Top of the Wilbur Zone 3120'**

   d. **Top of the Alamitos Zone 3830'**

   e. **Top of the Brown Zone 4380'**

   Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☐ / re-abandon ☐ well "Nwibu" 8-7 , API No. 037-22512 , Sec. 13 , T. 4s , R. 13w , S.B. B&M. Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

See Attachment

The total depth is: 5847 feet. The effective depth is: 4243 feet.

Present completion zone(s): see attachment. Present zone pressure: N/A psi.

Oil or gas shows: see attachment feet. Depth to base of fresh water: 2280 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes ☑ No ☐

The proposed work is as follows: (A complete program is preferred and may be attached.)
See Attachment.

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
C.R.G. Properties, Ltd

Address
2109 GUNDRY AVE.

City/State
SIGNAL HILL

Zip Code
90755

Name of Person Filing Notice
MICK BEYER

Telephone Number:
562 969-6100

Signature

Date
07-10-13

Individual to contact for technical questions:
MICK BEYER

Telephone Number:
310 505-9787

E-Mail Address:
Mbeyer@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division’s receipt of the notice, this notice will be considered cancelled.
CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), “Critical well” means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

(2) 100 feet of the following:
   (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

This form may be printed from the DOGGR website at www.conservation.ca.gov/DOG/
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

C.R.G. Properties, Ltd.  Well “Nwibu” 8-7 (037-22512), Sec.13, Twn. 4S, Rge. 13W, S.B. B&M, Long Beach Oil Field

According to Division records, the present condition of the well is as follows:
1. Location: See map Exhibit A - Attachment II
2. Accessibility:
3. Status:  idle deserted
4. Total Depth: 5847'  Effective Depth: 4243, Elevation of Kelly Bushing (KB) above sea level: 55.5'.
5. Casing: 13-3/8"cemented at 1122'; 9 5/8" casing cemented at 4715', cemented to 884' behind pipe; 7" casing landed from 4626' to 5847, perf @ int. 5724-5777',perf 4038'-4119 & perf int @ 4356-4412. TD 5847'. Plugged w/oem 5777'-5583'& 4423'-4242'.
6. Tubing:  Unknown  Rods:  Unknown
7. Base of Fresh Water (BFW): 2280'
8. Producing Zone(s):  Brown
9. Hole Fluid:  Unknown
10. Junk:  Unknown
11. Plugs:  5777'-5583' & 4423'-4242'.
12. Comments:  Top of Brown zone 4380', top of Alamitos zone 3930', top of Wilbur zone 3120', and top of Upper Gas zone 2500'.

The following operations are necessary to plug and abandon the well:

1. A Notice of Intention to Abandon (form OG 108) is to be filed with this Division at least 10 days prior to commencing work. Work is not to begin until a Permit to Conduct Well Operations (Form OG 111) has been issued. All well operations are to be witnessed by a representative of this Division as directed in the Permit to Conduct Well Operations.

2. The abandonment contractor will review job safety programs (JSP) with all crewmembers prior to work startup and/or if conditions change. Monitor well for any leaking gas. Position gas monitors and ventilation fans, if warranted before moving in any other equipment or personnel.

3. Adequate blowout prevention equipment, as defined in Division's publication No. M07, shall be installed and maintained in operating condition at all times. The minimum requirements are:
   a. A 3M rod Reagan or equivalent BOPE for pulling rods and pump operations.
   b. A Class II3M, with hydraulic controls, during abandonment operations.
   c. A 3M lubricator for wire line operations.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft and a minimum gel shear strength of 25 lbs./100 sq. ft. All cement plugs are to have a minimum compressive strength of 1000 psi and maximum liquid permeability of 0.1 md. All depths noted are from the KB.

5. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

7. Remove rod Reagan. Install and function test Class II3M BOPE (function test BOPE each day thereafter).

8. Pull out all production tubing.

9. Use appropriate combination tools to clean out to 4243'.

10. Run in scraper. Scrape the 7” casing.

11. Run in hole with tubing (if tag high, clean out fill to 4243).

12. The well shall be plugged with cement from 4243' to 3730'

13. The well shall be plugged with cement from 3120' to 2920.

14. The well shall be plugged with cement from 2500' to 2180.

15. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.

16. The 9-5/8” casing shall be perforated from 210 to 200’. Get an injection rate or a breakdown.

17. Sufficient cement shall be squeezed into the perforations to fill to surface.

18. The well shall be plugged with cement from 210' to surface.

19. All casing must be removed from between 5’ and 10’ below ground level.

20. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top of the outer casing.

21. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

22. Remaining buried pipelines that cannot be removed shall be purged with clean water. Abandon line by pumping approved cement slurry mixture, weld steel cap on both ends of the line and bury.

23. All equipment, casing, or junk that requires removal to implement restoration to lawful conditions shall be removed and properly disposed of in accordance with environmental laws and in accordance with instructions from the Division of Oil and Gas. All liquid wastes shall be removed and properly disposed.

24. A well History (Form OG 103) shall be filed in duplicate with the Division within 60 days of completing the work and must include a description of the removal or abandonment of the well flow line and any associated piping.
DEPARTMENT OF CONSERVATION
Legal Office
801 K Street
Sacramento, California
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 17, 2012
Operator: C.R.G. Properties, Ltd. (C0250)

BY
Tim Kustic
STATE OIL AND GAS SUPERVISOR

ORDER NO. 1032
Order to Plug and Abandon Wells & Restore Lease Conditions
REPORT OF CANCELLATION

Cypress, California
March 29, 2010

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

In accordance with the expiration of Permit to Conduct Well Operations the following change pertaining to your well C.R.G. Properties Ltd/"Nwlbu" 8-7, API No. 037-22512, Long Beach Field, Los Angeles County, Sec. 13, T. 4S, R. 13W, S.B. B. & M., is being made in our records:

Your notice to abandon dated 02/18/2009, and our report No. P 109-0096 issued in answer thereto, is hereby cancelled inasmuch as the work will not be done. If you have an individual bond on file covering this notice, it will be returned. No request for such return is necessary.

Elena M. Miller
State Oil and Gas Supervisor

By
Ellen P. Moser
Associate Engineer

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.
Your proposal to abandon well C.R.G. Properties, Ltd. "Nwlbu" 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Northwest Extension area, -- pool, Los Angeles County, dated 2/18/2009, received 2/19/2009 has been examined in conjunction with records filed in this office.

**THE PROPOSAL IS APPROVED PROVIDED:**

1. Blowout prevention equipment with hydraulic controls, equivalent to this Division's Class II3M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from 2600' to 2500', and 2330' to 2230'.
4. All uncemented casing annuli shall be cemented from 30' to 5'.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the clean-out depth
   c. Witness the location and hardness of the cement plug at 2835'.
   d. Witness the mudding of the well.
   e. Witness the placing, location and hardness of the cement plug from 2600' to 2500'.
   f. Witness the placing, location and hardness of the cement plug from 2330' to 2230'.
   g. Witness the placing, location and hardness of the cement plug from 100' to 5'.
   h. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

**NOTE:**

1. A crew drill may be required at the time of the blowout prevention equipment inspection.
2. The proposed surface plug shall not contain rock or gravel.
3. The base of freshwater sands is at 2270' ±
4. This division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

JCH:jch

cc: Update
    City of Signal Hill
    C.R.G. Properties, Ltd.

BLANKET BOND

Engineer:  John Huff
Phone:  714/816-6847

[Signature]
Hal Bopp
State Oil and Gas Supervisor

[Signature]
For William E. Brannon, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon / re-abandon well 8-7, API No. 037-22512

Sec. 13, T. 4S, R. 13W, SB B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See Attached Program

The total depth is: 5837 feet.
The effective depth is: 4243 feet.

Present completion zone(s): Upper Alarnitos

Present zone pressure: 800 psi.

Oil or gas shows:

Depth to base of fresh water: 2935 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): 3670 feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes ☑ No ☐

The proposed work is as follows: (A complete program is preferred and may be attached.)
See Attached Program

[Signature]
Cancelled 3-29-2010

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
CRG Properties

Address
6191 Point Loma

Name of Person Filing Notice
J.W. Scott

Telephone Number
(714) 290-9190

City/State
Huntington Beach, CA

Signature

E-Mail Address
JScott16@scocal.rr.com

Individual to contact for technical questions
J.W. Scott

Telephone Number
(714) 290-9190

Date
2/18/09

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.
CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), “Critical well” means a well within:

1. 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

2. 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
ABANDONMENT PROGRAM
Well NWLBUL (A)

A 8-7

1. MIRU. Install and test class III 3 M BOPE.
2. PU and RIH with 2 7/8" workstring and cleanout to 4243' (TD). POOH.
3. MU and RIH with cementers. Cement from TD to 2835' to 611 of class G cement. PU.
4. RIH and tag for top of cement.
5. Mud well from TOC to surface @ 219 bbls of 72 pcf cude.
6. RIH with tbq and cement 7" casing and 7" x 10 3/34" annulus from 100' to surface with 80 of class G cement. RDMO.
7. Cut recover csqs 8' below surface. Weld or plate on largest diameter csq.
8. Remove cellar. Cleanup well site.
LIL BOY 8-7 (037-22512)

Directional

E1 55.5'(KB)

Proposed

additional requirements

BFW - 960'
UPPER CASE 2500
UPPER WRAP 3000
ANTWIT - 4038
BROWN 5724

perfs @ int
5,223'-5,727'

perfs @ int
5,097'-5,850'

BF 4036'-4111'
4,356'-4,472' @ int

To 5850'

11'' hole

perfs 4039'-4090'
Top perf 4078'
perfs 4116'-4050'
1'' 765'
4626'

9-1/2'' reg casing w/ 12-7/8'' Casing w/ 10-5/8'' liner
left in shoe at 1200 ft. Casing in 9-1/2'' x 12-1/4'' annulus

SCH 3/2/2001
## REPORT OF PROPERTY AND WELL TRANSFER

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<tr>
<th>Well Name</th>
<th>API Number</th>
<th>Section Township Range</th>
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<tr>
<td>&quot;Nwibu&quot; 5-2</td>
<td>037-00397</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-3</td>
<td>037-09796</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-4</td>
<td>037-09797</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 6-3</td>
<td>037-06496</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 6-4</td>
<td>037-06415</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 8-7</td>
<td>037-22512</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-2</td>
<td>037-13525</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-3</td>
<td>037-09791</td>
<td>Sec. 13-4S-13W</td>
</tr>
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<td>&quot;Nwibu&quot; 9-4</td>
<td>037-00392</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-5</td>
<td>037-00142</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-6</td>
<td>037-00393</td>
<td>Sec. 13-4S-13W</td>
</tr>
</tbody>
</table>

### Description of the land upon which the well (s) is (are) located:

See above

### Date of transfer

**May 9, 2000**

**New owner**

C.R.G. Properties, Ltd.  C0250

**Type of organization**

Corp./Ltd.

**Address:**

15332 Antioch Street, Suite 338
Pacific Palisades, CA 90272

**Telephone**

(310) 808-9071

**Reported by:**

OG34A received 6/2/2000 signed by both parties

**Confirmed by:**

Same as above

**New operator new status**

PA

**Designation of Agent**

Mark Pender

**Old operator new status**

PA

### OPERATOR STATUS ABBREVIATIONS

- **PA** - Producing Active
- **NPA** - No potential, Active
- **PP** - Potential Inactive
- **NPI** - No potential, Inactive
- **Ab** - Abandoned or No More Wells

### FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Form or Record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Rept</td>
<td>N/A</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Form or Record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map and Book</td>
<td>N/A</td>
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<td>Notice cancellations</td>
<td>N/A</td>
<td>7/26/2000</td>
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<tr>
<td>Bond Status</td>
<td>[F]</td>
<td>7/26/2000</td>
</tr>
<tr>
<td>EDP</td>
<td>[F]</td>
<td>7/26/2000</td>
</tr>
<tr>
<td>Data Base</td>
<td>[F]</td>
<td>7/26/2000</td>
</tr>
</tbody>
</table>

### cc:

- Update; Envir Dsk; File
- Conservation Committee
- Harold W. Bertholf, Inc.
- LA County Assessor
- Sacramento EDP
- Cypress EDP

**Deputy Supervisor**

R. K. Baker

**Signature**

Floyd M. Leeson
Operations Engineer
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY CORP.
SEE OGD156 DATED 5-13-94
REPORT OF PROPERTY AND WELL TRANSFER

Field or county

<table>
<thead>
<tr>
<th>Long Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former owner: Sun Exploration &amp; Production Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name and location of well(s)</th>
<th>Former owner address</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWLBU 5-1 (037-09795)</td>
<td>NWLBU 8-1 (037-09792)</td>
</tr>
<tr>
<td>NWLBU 5-2 (037-00397)</td>
<td>NWLBU 8-2 (037-09793)</td>
</tr>
<tr>
<td>NWLBU 5-3 (037-09796)</td>
<td>NWLBU 8-3 (037-06496)</td>
</tr>
<tr>
<td>NWLBU 5-4 (037-09797)</td>
<td>NWLBU 8-4 (037-06415)</td>
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<tr>
<td>NWLBU 6-1 (037-09788)</td>
<td>NWLBU 8-7 (037-22512)</td>
</tr>
<tr>
<td>NWLBU 6-2 (037-09789)</td>
<td>NWLBU 9-2 (037-13525)</td>
</tr>
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</table>

Description of the land upon which the well(s) is (are) located

<table>
<thead>
<tr>
<th>Date of transfer, sale, assignment, conveyance, or exchange</th>
<th>New owner address</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1, 1983</td>
<td>4200 Easton Drive, Suite 16, Bakersfield, CA 94309</td>
</tr>
</tbody>
</table>

Reported by Letter from Sun Exploration & Production Co. dated 5-16-83.


New operator new status (status abbreviation) PA

Request designation of agent Joe D. Rose, same address.

Old operator new status (status abbreviation) PA

Remarks

Deputy Supervisor V. F. Gaede

Signature

OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>PA - Producing Active</th>
</tr>
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<tbody>
<tr>
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<td>PL - Potential Inactive</td>
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<tr>
<td>NPI - No Potential, Inactive</td>
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<tr>
<td>Ab - Abandoned or No More Wells</td>
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</table>

FORM AND RECORD CHECK LIST

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<th>Date</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
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<tbody>
<tr>
<td>Form OGD121</td>
<td>CP</td>
<td>7-1-83</td>
<td>Map and book</td>
<td>137</td>
<td>7/12/83</td>
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<tr>
<td>Form OGD140</td>
<td>NONE</td>
<td></td>
<td>Notice to be cancelled</td>
<td></td>
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<tr>
<td>New well cards</td>
<td>CP</td>
<td>7-1-83</td>
<td>Bond status</td>
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<td></td>
</tr>
<tr>
<td>Well records</td>
<td>CP</td>
<td>7-1-83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric logs</td>
<td>CP</td>
<td>7-1-83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Update Conservation Committee
L. A. Assessors
DIVISION OF OIL AND GAS

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: [Redacted] Well No. [Redacted]
API No. [Redacted] Sec. [Redacted], T. [Redacted], R. [Redacted], S. B. B&M.
County: [Redacted] Field: [Redacted]

RECORDS RECEIVED DATE
Well Summary (Form OGI00) 11/2/82 (2)
History (Form OGI03) 11/2/82 (2)
Core Record (Form OGI01) 3/19/83 (2)
Directional Survey 3/19/83 (2)
Sidewall Samples
Other

Date final records received
Electric logs:
- Alphametric (Clayton) 10/21/81 (2)
- Archer Plot (Clayton) 10/21/81 (2)
- Camp Neutron 5/19/83 (2)
- Gas-Open to Oil Zone 5/19/83 (2)
- Well Completion 5/19/83 (2)
- Gas Injection
- Water Flood Source

RECOMPLETED

REMARKS

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.) [X]
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Surface Inspection
13. Production
14. E Well on Prod., Dr., Sur. [X]

[Redacted] 5/19/83 (2)
[Redacted] 5/19/83 (2)

CLERICAL CHECK LIST

1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGI59 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)
8. Notice of Records due (F-OGD170)

No. P 182-109

Cont. Diameter 5/19/83 (2)

Held in P.O. Records 10/23/83

UPDATE CENTER 6/7/83

RECORDS NOT APPROVED
Reason: [Redacted]

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)
MAP AND MAP BOOK

OGD2 (12/80/DWR/5M)

LONG BEACH OFFICE - USE REVERSE SIDE
# WELL SUMMARY REPORT

**Operator**
SUN EXPLORATION AND PRODUCTION COMPANY

**Well**
NWLBU #8-7

**Field**
LONG BEACH

**County**
LOS ANGELES

**Sec. 13**

**T. 4S**

**R. 13W**

**B.&M. SB**

**Location**
(Give surface location from property or section corner, street center line and/or California coordinates)
487.44' N & 778.80' W OF SAN ANTONIO DRIVE & DEL MAR AVENUE

**Elevation of ground above sea level**
45.5

**Comenced drilling (date)**
8/25/81

**Completed drilling (date)**
5/14/82

**Commenced producing (date)**
N/A

**Depth measurements taken from top of:**
- Derrick Floor: X
- Rotary Table: □
- Kelly Bushing: □

**Which is**
10'- feet above ground

**GEOLOGICAL MARKERS**

<table>
<thead>
<tr>
<th>MARKER</th>
<th>DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPPER ALAMITOS I1</td>
<td>4038'</td>
</tr>
<tr>
<td>I2</td>
<td>4080'</td>
</tr>
<tr>
<td>LOWER ALAMITOS K1</td>
<td>4307'</td>
</tr>
<tr>
<td>BROWN ZONE V</td>
<td>5724'</td>
</tr>
</tbody>
</table>

**Form and age at total depth**
LOWER ALAMITOS

---

### CASING RECORD (Present Hole)

<table>
<thead>
<tr>
<th>Size of Casing (API)</th>
<th>Top of Casing</th>
<th>Depth of Shoe</th>
<th>Weight of Casing</th>
<th>Grade and Type of Casing</th>
<th>New or Second Hand</th>
<th>Size of Hole Drilled</th>
<th>Number of Sacks or Cubic Feet of Cement</th>
<th>Depth of Cementing (if through perforations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 3/8&quot; SURFACE</td>
<td>1122'</td>
<td>54.5#</td>
<td>K-55, BT&amp;C</td>
<td>NEW</td>
<td>17 1/2&quot;</td>
<td>1456 CF POZ MIX &quot;A&quot; &amp; 100 CF CL &quot;G&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 5/8&quot; SURFACE</td>
<td>4715'</td>
<td>36.0#</td>
<td>K-55, LT&amp;C</td>
<td>NEW</td>
<td>12 1/4&quot;</td>
<td>1076 CF CL &quot;G&quot; &amp; 200 CF CL &quot;G&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7&quot;</td>
<td>4626'</td>
<td>26.0#</td>
<td>K-55, BT&amp;C</td>
<td>NEW</td>
<td>8 3/4&quot;</td>
<td>468 CF POZ MIX &quot;A&quot; &amp; 100 CF CL &quot;G&quot;</td>
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</table>

**PERFORATED CASING**
Size, top, bottom, perforated intervals, size and spacing of perforation and method:
4- 1/2" HPF 4119'-4109'; 143 SHOTS W/4-1/2" HPF 4412'-4402'; 4401'-4383'; 4-1/2" H @ 4356'; PERF'D 4-1/2" HPF 4412'-4402'; 4401'-4383'; WSO 4-3/8" H @ 4031'; 4-43" HPF 5757'-5749', 5748'-5738', 5736.5'-5734.5', 5733'-5723.5'.

**Was the well directionally drilled?**
Yes [X] No

**Electrical log depths**
FDG-CNL-GR-CAL-TEN 4902'-3000'; DLL-GR-TEN 5850'-4713'; FDG-CNL-GR-CAL-TEN 5850'-4713';

**Other surveys**
GAMMA RAY 4500'-4000'; GAMMA RAY CMT BOND LOG 4200'-3348'; DIPMETER

---

**Name**
L. B. CARROLL, JR.

**Address**
P O BOX 55060

**City**
VALENCIA

**Telephone Number**
805/257-6200

**Signature**

---

**District Engineer**

**Date**
10/28/82

---

**Submit in duplicate**
SUBMIT IN DUPLICATE
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: Sun Exploration & Production Co.
Field or County: Long Beach
Well: Northwest Long Beach Unit #8-7
A.P.I. No.: 037-22512
Name: L.B. Carroll, Jr.
Date: October 28, 1982

PO Box 55060, Valencia, CA 91355 0560
(Phone): (805) 257-6200

Date

1981

8/25
5826 TVD/"V"/IR/ATLANTIC/LA CA/Wi 1.00/SURF LOC: 487.44' N & 778.80' W OF SANTONTO DR & DEL MAR AVE/BHL: 463 N, 100' W OF SURF LOC/370' SD SH D (320) MXNG LCM/MIRU ATLANTIC OIL RIG #3/SPUD @ 2 PM 8-24-81/DRLG 17 3/4" HOLE FRM 50-370, LOST COMPLETE RTNS/WRK TIGHT PIPE OUT OF HOLE/MW 68/VIS 45/240, PMP 8 YDS OF 3-1 MX CMT/DISP w 22 CF DRLG MUD/POH/WOC 12 HRS, TAG SOFT CMT @ 85/CO MED HRD CMT TO 105 w FULL RTNS/MW 66/VIS 38/8/26
370 DRLG OUT CMT/MX & PMP 100 BBLs OF 18# PER BBL LCM, NO RTNS/w DP @ 945 w OPN ENDED DP/PMP 100 BBLs OF 18# PER BBL LCM, REGAIN FULL CIRC/TRIP FOR BIT, HAD 15" FILL, NO FLUID LOSS/DRLG 17 3/4" HOLE FRM 965-1120/CIRC & WIPE HOLE TO RUN CSG/MW 71/VIS 57/8/27
965 SD SH D (595) LOST CIRC/DRLG CMT & CLND OUT TO 370 w FULL RTNS/DRLG 17 3/4" HOLE FRM 370-965 LOST COMPLETE RTNS/POH/MW 70/VIS 43/8/28
1120 SD SH D (155) PREPNG TO RUN 13-3/8" CSG/MX LCM PILL, RIH TO 945 w OPN ENDED DP/PMP 100 BBLs OF 18# PER BBL LCM, REGAIN FULL CIRC/TRIP FOR BIT, HAD 15" FILL, NO FLUID LOSS/DRLG 17 3/4" HOLE FRM 965-1120/CIRC & WIPE HOLE TO RUN CSG/MW 71/VIS 57/8/31
8-29/1122 SD SH INST CSG HD/CIRC & COND MUD/POH/RAN 28 JTS (1125) T3-3/8" 54.5% K-55 BT&C CSG w SHOE @ 1122, FLOAT CLR @ 1076/B.J. PMPD 150 CF SODIUM SILICATE FOLLOWED BY 1456 CF POZ "A" 1-1 PERLITE w 4% GEL & 2% CaCl, FOLOWD BY 100 CF CL "G" CMT w 2% CaCl, /DISP w 940 CF DRLG MUD/BMPD*PLUG w 1000 PSI, BLED TO 0/440 CF CMT RTNS/CIP AT 10:45 PM/WOC 4 HRS/LND CSG/MW 68/VIS 40/8-30/1122 SD SH RIH w 12% BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD ON T3-3/8" CSG HD/INST BOE/RIH w 12 3/4" BIT TO TST CSG & BOE/MW 68/VIS 35/8-31/1503 SD SH D (381) DD/TST CL III BOP & CK BY DOG/DRLG PLUGS, FLOAT CLR, CMT & SHOE @ 1122/DRLG 12P" HOLE FRM 1122-1503/SURV @ 1428, 2 45', NO1W/TVD 1427.97/SEC. 3.45/N-3.22,W-1.44/MW 68/VIS 36/9/1
2233 SD SH D (730) DRLG/DRLG 12 3/4" HOLE FRM 1503-2233/SURV @ 2173 13 15', N25'30"W/TVD 2159.14/SEC.137.22/N-129.80/W-49.32/MW 67/VIS 42/9/2
2425 SD SH D (192) FISHING D.C. SLIPS OUT OF BOP/3 HRS DN TIME REPAIRING CEMENT/HARDIDLE & DYNA DRLG 12 3/4" HOLE FRM 2233-2455/UNABL TO GET SURV/TRIP TO CHG ORIENTATION SUB/DROP D.C. SLIPS IN BOP/FISHING OUT SAME/SURV @ 2357, 12 30', N25'30"W/TVD 2338.47/SEC.176.81/N-166.17/W-68.65/MW 69/VIS 38/
1981

9/3 2714 SD SH D (289) DRLG/FISHED SLIPS OUT OF BOP/DRLG 12½"
    HOLE FRM 2425-2714/RIG OFF DAY WORK FOR 7½ HRS FISHING OUT SLIPS/
    SURV @ 2663, 13°, NO2E/TVD 2637.37/SEC.245.62/N-234.85/W-76.00/
    MW 69/VIS 36/

9/4 2950 SD SH D (236) RIH/DRLG 12½" HOLE FRM 2714-2950/WIPE 12½"
    HOLE TO 1100, HOLE TIGHT/CIRC COND MUD/TRIP FOR 8-3/4" BHA/SURV @
    2938, 12°15', N05°30'E/TVD 2905.72/SEC.303.61/N-294.96/W-72.61/MW 70/
    VIS 37/

9/5 3495 SD SH D (545) TRIP FOR DD/DRLG 8-3/4" HOLE FRM 2950-3495/
    TRIP FOR DD/SURV @ 3495, 10°45', N5°E/TVD 3451.05/SEC.412.36/N-408.54/
    W-63.83/MW 70/VIS 40/

9/6 3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM
    3495-3822/POH/SURV @ 3758, 6°15', N43°W/TVD 3709.13/SEC.460.58/N-
    453.93/W-79.69/MW 70/VIS 38/

9/7 3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM
    8-3/4" HOLE FRM 3640-3792/WRK ON PMP & POH LOOKING FOR WASHOUT/LEFT DBL
    PIN XO, MONEL, & 8-3/4" BIT IN HOLE/WO FISHING TOOLS 5 HRS/RIH w NEW
    DBL BOX XO & ATTMPT TO SCREW INTO FISH/MW 69/VIS 38/

9/8 3996 SD SH D (174) DRLG/POH, REC ALL FISH/RIH, REAM DYN A DRL
    RUN FRM 3733-3822/DRLG 9-7/8" HOLE FRM 3822-3996/SURV @ 3955, 2°15',
    N41W/TVD 3905.66/SEC.471.79/N-463.97/W-88.40/MW 68/VIS 38/

9/9 4170 SD SH D (174) REPAIRNG SWIVEL/DRLG 8-3/4" HOLE FRM 3996- 4095/REPAIR
    SWIVEL FOR 7 HRS/DRLG 8-3/4" HOLE FRM 4095-4170/REPAIR
    SWIVEL FOR 4 HRS/MW 68/VIS 45/SURV @ 4139, 1°15', N40W/TVD 4089.56/
    SEC.477.22/N-468.24/W-92.37/

9/10 4297 SD SH D (127) DRLG/REPAIR SWVL 1 HR/DRLG 8-3/4" HOLE
    FRM 4170-4235/TRIP FOR NEW BIT & TWO D.C./DRLG FRM 4235-4297/SURV @
    4235, 1°15', N69W/TVD 4185.59/SEC.478.76/N-496.46/W-94.08/MW 68/
    VIS 44/

9/11 4483 SD SH D (186) REPAIRNG PMP/DRLG 8-3/4" HOLE FRM 4297- 4379/REPAIR
    SWIVEL 3 HRS/DRLG 8-3/4" HOLE FRM 4379-4483/REPAIR MUD
    PMP FOR 7 HRS/SURV @ 4427, 0°15', N34°E/TVD 4377.52/SEC.480.69/
    N-471.08/W-95.71/MW 70/VIS 37/

9/12 4673 SD SH D (190) DRLG/REPAIR MUD PMP 1½ HRS/DRLG 8-3/4"
    HOLE FRM 4483-4548/TRIP FOR NEW BIT/DRLG 8-3/4" HOLE FRM 4548-4673/
    SURV @ 4610, 0° VERT/TVD 4560.52/SEC.480.14/N-470.68/W-94.94/MW 68/
    VIS 38/

9/13 4906 SD SH D (233) PREP TO LOG/DRLG 8-3/4" HOLE FRM 4673-
    4906/CIRC HOLE & COND MUD/WIPE HOLE FOR LOGS, NO FILL/POH FOR LOGS/
    SURV @ 4906 1°, S81°E/TVD 4856.49/SEC.478.56/N-469.82/W-91.45/MW 69/
    VIS 40/
1981

9/14 4906 TD OH 3234 SD SH OH (284) OH/SCHLUM RAN DLL-GR-TEN FRM
4906-1122/FDC-CNL-GR-CAL-TEN FRM 4902-3000/DIPMETER FRM 4903-3000/
TOOK SWG FRM 4607-4006, SHOT 57, REC 42/OPN 8-3/4" HOLE TO 12½" FRM
2950-3234/MW 69/VIS 40/

9/15 4906 TD OH 4095 SD SH OH (861) OH/OPN 8-3/4" HOLE TO 12½" FRM
3234-3451/CIRC & COND HOLE FOR LOG/POH/SCHLUM RAN DIPMETER/UNABL TO
GET LOG TOOL BELOW 3482/TRIP FOR DRLG ASSY/OPN 8-3/4" HOLE TO 12½"
FRM 3451-4095/MW 70/VIS 43/

9/16 4905 TD OH 4406 SD SH OH (311) OH/OPN 8-3/4" HOLE TO 12½"
FRM 4095-4406/MW 69/VIS 37/

9/17 4906 TD OH 4528 SD SH OH (122) OH/OPN 8-3/4" HOLE FRM 4406-
4499/POH & REPAIR BRAKES FOR 4½ HRS/OPN HOLE FRM 4499-4528/MW 69/VIS 39/

9/18 4906 TD OH 4685 SD SH OH (157) OH/OPN 8-3/4" HOLE TO 12½"
FRM 4528-4685/MW 69/VIS 40/

9/19 4906 TD OH 4725 SD SH OH (40) RUNNING 9-5/8" CSG/OPN 8-3/4"
HOLE TO 12½" FRM 4685-4725/COND HOLE FOR LOG/WO SCHLUM 3½ HRS/SCHLUM
RAN DIPMETER FRM 4725-3000/CIRC FOR CSG/RUNNING 9-5/8" CSG/MW 69/
VIS 40/

9/20 4906 TD PRES TSTG WELL HD/RAN TOT OF 108 JTS (4718) w 56 JTS
9-5/8" 36# S-80 ST&C ON BTM & 52 JTS 9-5/8" 36# K-55 LT&C ON TOP/DFC
@ 4670/DFS @ 4715/DOWELL PMPD 1076 CF CL 'G' CMT w 1-1 POZ, 0.5%
CFR-2, 2% GEL, 3% KCL FOLLOWED BY 200 CF CL 'G' CMT w 0.75% CFR-2 &
3% KCL/DISP w 2060 CF DRLG MUD/DID NOT BMP PLUG/BLED TO 0/40 CF CMT
RTNS TO SURF/GIP @ 2:23 PM/REM BOE/INST 9-5/8" PKNG/CUT OFF CSG &
WELD ON CSG HD/WAIT ON HD TO COOL/TSTG HD/

9/21 4906 WSO TSTG/TST WELL HD TO 5000 PSI OK/INST CL III BOP &
TST TO 1000 PSI OK/RIH, TAG PLUG @ 4540/TST PIPE RAMS & BAG, WITNESS
BY D.O.G. OK/DRLG PLUGS, CMT & FLOAT CLR TO 4705/CIRC CLN/TRIP FOR
WSO TOOL/SHOT 4 - ½" HOLES @ 4693, SET SLIPS & OPN TOOL @ 6:27 AM w
LIGHT BLOW/MW 69/VIS 35/

9/22 5090 SD SH D (184) DRLG/REL PKR, POH w WSO & REC 30' DRLG MUD/
IH 2200 PSI, FH 2190, IF 57, FF 57/TST OK & WITNESS BY D.O.G./PU BHA
RIH INST NEW RUBBERS ON EVERY JT OF DP/DRLG OUT SHOE & CLN OUT TO
4906/DRLG 8-3/8" HOLE FRM 4906-5090/SURV @ 5007, 1°30', 889°E/TVD
4957.81/SEC.477.81/N-469.31/W-89.27/MW 68/
1981
9/23  5200 SD SH D (110) DRLG/DRLG 8-3/4" HOLE FRM 5090-5164/
      TRIP FOR LOCKED BHA/REAM FRM 4830-5164/DRLG FRM 5164-5200/SURV @
      5200, 1°, S65°E/TVD 5150.44/SEC.475.87/N-468.23/W-85.74/MW 68/
      VIS 40/
9/24  5360 SD SH D (160) DRLG/DRLG 8-3/4" HOLE FRM 5200-5360/SURV
      @ 5290, 0°45', S05E/TVD 5242.42/SEC.474.58/N-467.13/W-84.93/MW 68/
      VIS 38/
9/25  5580 SD SH D (220) DRLG/LOST 50 BBL/L MUD @ 5360/PULL TO SHOE,
      MX 50 BBL/L ECM/RH TO 5360, SPOT ECM FILL/DRLG w FULL RTNS FRM
      5360-5580/SURV @ 5447, 1°15', S06E/TVD 5397.40/SEC.471.40/
      N-464.44/W-84.68/MW 68/VIS 38/
9/26  5784 SD SH D (204) DRLG/DRLG 8-3/4" HOLE FRM 5580-5600/TRIP
      FOR NEW BIT A PK SWIVEL/2½ HRS DN TIME/DRLG FRM 5600-5784/SURV @
      5754 3°8', S41E/TVD 5704.38/SEC.468.28/N-461.00/W-83.47/MW 69/VIS 41/
9/27  5850 SD SH D (66) LOGGING/DRLG 8-3/4" HOLE FRM 5784-5850/
      WIPE HOLE TO 9-5/8" CSG/CIRC FOR LOGS/RU SCHLUM & STRTD LOGNG/SURV
      @ 5850, 1°15', S70E/TVD 5800.35/SEC.467.22/N-460.00/W-82.26/MW 69/
      VIS 41/
9/28  5850 TD HO 4730 SD-SH OH (15) OH/SCHLUM RAN DLL-GR-TEN FRM
      5850-4713/FDC-CNL-GR-CAL-TEN FRM 5850-4713/DIPMETER FRM 5850-4713/TOOK
      57 SWC FRM 4727-5845, REC 35/RU SCHLUM/RH w 11" HO/OPN HOLE FRM 8-3/4"
      TO 11" FRM 4715-4730/MW 69/VIS 39/
9/29  5850 TD OH 4999 SD-SH OH (269) OH/OPN 8-3/4" HOLE TO 11" FRM 4730-4999/
      MW 68/VIS 42/
9/30  5850 TD OH 5450 SD-SH OH (460') REPAIRING SWIVEL/OPEN
      8-3/4" HOLE TO 11" FRM 4999 TO 5459/PULL TO SHOE TO REPAIR
      SWIVEL/4-1/2 HRS DOWNTIME/MW 68/VIS 38/
10/1  5850 TD OH 5725 SD SH OH (266) OH/REPLACE SWIVEL, 4½ HRS
      DN/OPN 8-3/4" HOLE TO 11" FRM 5459-5725/MW 67/VIS 40/
10/2  5850 TD, OH 5832 SD SH OH (107) OH/GAUGE 11" HOLE FRM
      4715-5725/OPN 8-3/4" HOLE TO 11" FRM 5725-3832/MW 67/VIS 41/
10/3  5850 PREPNG TO CMT 7" CSG/OPN 8-3/4" HOLE TO 11" FRM
      5832-5850/PULL TO SHOE, WAIT ½ HR, RIH TO 5850 (NO FILL)/POH/RAN
      30 JTS (1217) 7" 26# K-55 BT-C w SHOE @ 5847, FLOAT 5802/CIRC CSG
      1 HR WRKNG CSG 40'/MW 67/VIS 41/
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10/4 5850 TD 5847 PBTDT, CLNG OUT 7" LNR/PMP 468 CF POZ-MIX "A"
CMT 1-1 w .5% CFR-2, 2% GEL, 3% KCL FOLLOWD BY 100 CF CL "G" w
.75% CFR-2, 3% KCL/DISP w 640 CF MUD/BMP PLUG w 1400 PSI, BLEED TO
0/SET & REL FRM LNR/CIRC OUT 50 CF OF EXCESS CMT/POH, PU 8-3/4"
BIT w 9-5/8" 36# CSNG SCRPR/RIH, CO TO 4626 TOP OF LNR HANGER/
TRIP FOR 6-1/8" BIT, 4 - 4-3/4" DC ON 3½" DP TO CO LNR/MW 67/VIS
40/

10/5 5850 TD, 5847 PBTDT PREPNG TO PULL BOP/CO TO 5801/TST CSG
TO 1000 PSI FOR 15 MIN, OK/DRL PLUG, FLOAT CLR, CMT TO 5837, 10'
ABOV SHOE/CHG OVR TO 5% KCL WTR/LD 4½" DP & TOOLS/PREP TO PULL
BOP/

10/6 5837 PBTDT REL RIG @ 1:30 PM 10-5-81/PULL BOP/INST TBG HD/
REL RIG/DROP FRM REPORT PENDING COMPLETION/

10/10 5837 PBTDT/RIG UP SCHLUM & RAN CBL FRM 5815-4000/RIG DN
SCHLUM & MOVE OUT/

10/16 5837 PBTDT/MIRU ALLIED PROD RIG/INST BOP/PU BELL NIP ON BTM OF
9-5/8" 36# FB/RIH TO 3211/SET FB/RU & SWAB FLUID LEVL DN TO
700'/OPENING BYPASS EVERY OTHER RUN TO EQUALIZE FLUID IN
ANNULUS/SIFN/

10/17 5837 PBTDT/CONT SWABNG FLUID FRM 700-2920/CLOSE IN WELL/

10/18 5837 PBTDT/RU MCCULLOUGH & SHOT 4 - 1/3" JHPF FRM 5777-
5764, HAD 25' FLUID RISE AFTR 1 HR/POH w FB/RAN SNKRS BAR TAG BTM @
5837 (BTM)/RAN 500 KILL STG/SIFN/

10/19 5837 PBTDT/PULL KILL STG/MAKE UP GAS ANCHOR & RIH ON 180 JTS OF
2-7/8" TBG w TAIL @ 5766/RAN 2½x1½x12'x15' PMP ON 123 3/4" RODS &
66 7/8" RODS/SIFN/

10/20 5837 PBTDT/SPACD OUT BH PMP/FILLED TBG STG w LSE PROD WTR/CLND
LOCATN/RDMO/PUT WELL ON PROD/IN TST 17 HRS/0 BO, 124 BW/TBG 32#,
CSG 0#/12.5 SPMx72" LOS/FL 4341, OP 1392/

10/21 7 HRS/0 BO, 25 BW/TBG 32#/CSG 0#/12.5 SPMx72" LOS/FL
5733 @ PMP/NOTE! BH PMP SANDED UP, STUCK IN OPN POSSITION @
2:00 PM 10-21-81/SHUT PU DN/SHOT FL @ 5:00 AM 10-22-81, FL @
5733, NO FLUID ENTRY/

10/22 WELLTECK MIRU/FND BH PMP STUCK, UNABL TO WRK LOOSE/REL ON & OFF TOOL
POH w RODS/INSTLDB OE/REL BKR 7" 26# ANCHOR-CATCHER, LOWERRD TBG TO
5837 (TD)/PULLING OUT HOLE w TBG WET/SIFN/
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10/23 CONTD PULLING TBG OUT OF HOLE, PULLING WET/FLUID ABOV PMP SHOE WAS MUDDY WTR w NO SD/FLUID SAMPLE FRM PMP & MUD ANCHOR TSTD 40% SOLIDS & CLORIDES OF 3600 PPM+, OR EQUAL TO 5% KCL WTR, LEFT IN HOLE, NO FORMATION WTR IN EVIDENCE/SENT BH PMP TO SHOP, PMP PLGR STUCK IN PMP BARREL w BUILD UP OF A CARBON TYPE MATERIAL ON PLGR WHICH COULD BE REMOVED w KNIFE/RIH w 2-1/8" BAILER, BAILD UNSET & CONTAMINATD CMT FRM 5826-5841 (7" SHOE @ 5847)/RIH w 9-5/8 36# BKR FB ON 101 JTS 2-7/8" TBG TO 3211/PMPD 171 BBL OF 5% KCL WTR DN TBG, SHOT FL TOP OF KCL WTR @ 2892/SET FB/SIFN/

10/24 RU SCHLUM, INSTLD LUBRICATR/RAN 2-1/8" DOMED SCALLOP THRU TBG GUN w 6.5 CM CHG, 0.32" EH, 0° PHASE, DECENTRALIZD, 13' 52 SHOTS, RIH, 1ST RUN CLR LOCATR SHORTD OUT/2ND & 3RD RUNS, FAULTY CLR LOCATR/REMOV LUBRICATR/REL SCHLUM/SHUT WELL IN TILL AM 10/26/81/

10/26 RU SCHLUM & FULL LUBRICATOR/MU 2-1/8" OD DOMED SCALLOP THRU TBG GUN (6.5 GRM CHG, 0.32" EH); 0° PHASE; DECENTRALIZED; 13'-53 SHOTS w CLR LOCATR, RIH, LOCATD CLRS @ 5723, 5764 & 5810 (NOTE FL INSIDE TBG @ 2888) SHOT HOLES FRM 5764½ TO 5777½/WAITD 15 MIN & FND FL INSIDE TBG @ 2370 (518 FLUID RISE)/REL SCHLUM/REL FB PKR & POH w TBG/MEAS IN HOLE w TBG & BKR "B-2" 7" 26# ANCHOR CATCHER, REMOVD BOE & SET ANCHOR w TOP @ 5317.92, LANDED TBG w ST @ 5703.14/RAN 2½"x1-3/4"x25' 3 - TUBE PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w 16 BBLS WTR/PUT WELL ON PROD INTO BKR TANK/RDMO/NOTE: SHOT FL BEFORE PRODUCNG WELL @ 2770/NO TEST, FND PU DN THIS AM 10-27-81, MURPHY HI-LO FLOWLINE PRESSURE SWITCH, SHUT WELL DN/

10/27 14 HRS/0 BO, 165 BW/TBG 42# CSG 0#/12½ SPmX72" LOS/FL 5671, @ PMP/SHUT WELL IN 1 HR/FL 5589, OP 82'/POP WELL PMPD OFF IN 30 MIN/SHUT IN 9 HRS/FL 5589, OP 82'/POP, WELL PMPD OFF IN 30 MIN/SWI, POUNDING FLUID/FL 5671 @ PMP/

10/28 WELLTECK MIRU/SHOT FL @ 5637 (34' OVR PMP)/UNSEATD 3 TUBE PMP, EQUALIZED FLUID, SHOT FL @ 4847 (824' OVR PMP)/POH/INSTLD BOE/REL BKR ANCHOR CATCHER, LOWERD TBG, TAGGED BTM @ 5737 (NO FILL)/LD DN EXCESS TBG/SFT TBG ANCHOR CATCHER w TBG ST @ 5766.68', PMP SHOE @ 5734.33/ RAN OILWELL 1 -3½"x1-3/4"x25' 3 TUBE PMP & RODS/FILLED TBG w 21 BBLS PROD LSE WTR/POP @ 7:40 PM 10-28-81, IN TEST/SHOT FL PRIOR TO PRODUCNG FL 4809' (924' OVR PMP)/9 HRS/0 BO, 28 BW/TBG 25#, CSG 0#/11 SPmX72" LOS/FL 5733, @ PMP/SHUT WELL IN @ 5:00 AM 10-29-81/
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10/29 24 HR SI BUILD UP TST/TBO#/CSG 5#/FL 5637, OP 96/
10/30 3/4 HR/1.2 BO, .3 BW/TBG 18#/CSG 0#/11 SPMx72" LOS/
    FL 5650, OP 83' /
10/31 3/4 HR/1.8 BO, .2 BW/TBG 16#/CSG 0#/11 SPMx72" LOS/
    FL 5662, OP 71'/
11/1 3/4 HR/1.8 BO, .2 BW/TBG 15#/CSG 0#/11 SPMx72" LOS/
    FL 5656, OP 77'/
11/2 3/4 HR/.96 BO, .04 BW/TBG 15#/CSG 0/11 SPMx72# LOS/FL 5662, OP 71/
11/3 NO REPORT/WELL SHUT IN FOR STATIC BUILD UP TEST/
11/4 NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TEST/
11/5 NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TST/
11/6 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/7 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/8 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/9 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/10 CP 52/FL 5298, OP 435/
11/11 CP 60#/FL 5263, OP 470/
11/12 SICP 68#/STATIC FL 5212/OP 521/
11/13 SICP 73#/STATIC FL 5176, OP 557/
11/14 NO REPORT/
11/15 SICP 82#/WTATIC FL 5086', OP 647'/
11/16 SICP 92#/STATIC FL 5032, OP 701/
11/17 WELL TECK MIRU/INSTLD ROD REGAN/POH w 66 - 6/8" & 125 -
3/4" x 30' Sucker Rods & 3 - TUBE PMP/UNLANDED TBG, REL BKR TBG
ANCHOR, INSTLD BOE/POH w 180 JTS 2-7/8" TBG/MU 1/4" SNKR BAR, RIH
ON SD LINE TO 5837, NO FILL/MU 2-3/8" x 1-3/4"x16'x28'x32' "THE"
PMP BARREL BELOW 7" - 26# BKR FB PKR ON 160 JTS 2-7/8" TBG, RIH TO
4560/SIFN/
11/18 CONTD IN HOLE w 7" 26# FB PKR & 2-7/8" TBG, SET FB @
5697, w BTM OF "THE" PMP BARREL @ 5737/RU DOWELL/FILLED ANNULUS
w 340 BBLs OF 65/5% KCL WTR/PRESS ANNULUS TO 500 PSL/PMPD 1000
GALS "MSR" ACID w 40# FLAX 4 DIVERTING AGENT & 92 GALS 15% HCL
ACID w MUTUAL SOLVENT DN TBG/SQZD TOT 378 GALS ACID AWAY IN 4 HRS
w MAX PRESS OF 2000#, BLEEDING BK TO 1000 PSL IN 3 MIN, FORMATION
TIGHT/Opend UNLOADR REV CIRC ACID OUT OF TBG w 35 BBLs OF 5% KCL
WTR/SIFN/
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11/19
REL FB/REV CIRC w 5% KCL, RECOVERD 10 BBLs CRUDE OIL FRM ANNULS/LOWERD TBG FRM 5737-5835, REV CIRC 1 HR NO ACID IN RTNS/PU TO 5737/SHUT WELL IN TILL AM 11/20/81/

11/20
LOWERD TBG TO 5780 (3' BELOW PERFS)/DISPL TBG w 45 BBLs OF KCL WTR, RECOVERD 20 BBLs CRUDE OIL FRM ANNULS/RU DOWELL, PMPD 100 GALS 12% HCL-3% HF ACID w INHIBITORS & SURFACTANT ADDED, FOLOWD w 1344 GALS 5% KCL WTR, SPOTTED ACID ACROSS PERFS (5764-5777½')/PU SET FB @ 5675 w BTM OF "THE" PMP BARREL @ 5716/TSTD ANNULUS TO 800 PSI, OK/OPEN UNLOADR, PMPD DN TBG w 150 GALS 12-3 MUD ACID, FOLOWD w 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTR, FOLOWD w 190 GALS 15% HCL ACID w 10% MUTUAL SOLVENT, CLOSD UNLOADR/PRESSURD ANNULUS TO 800 PSI/ SQZD ACID AWAY w 810 GALS 15% HCL ACID, FOLOWD w 1450 GALS KCL WTR, PRESSURE & RATE STAYD CONSTANT THROUT SQZ 2750 PSI @ ½ BBL PER MIN/ACID IN PLACE @ 3:00 PM, SHUT IN PRESS 2750#/BLED DN TO 500#/ IN 15 MIN, 0#/ IN 30 MIN, NO FLEED BK/MU & RAN STDG VALVE & PMP PLGR & RODS/STROKD PMP w RIG FOR 1½ HRS, RECOVERD 6 BBLs KCL WTR (APPARENT LOW FLUID ENTRY) LET SET 1 HR, STROKD AGAIN FOR 1 HR, RECOVERD 5 BBLs KCL WTR, PMPD OFF/PULLD STDG VALVE, PLGR & 150' OF ROD UP HOLE/DISPL 12 BBLs KCL WTR DN TBG @ 1000 PSI/SIFN/

11/21
SEATD STDG VALVE, FILLED TBG w 1½ BBLs 5% KCL WTR, STROKD PMP w RIG/WELL PMPD OFF AFTR 1½ BBLs RTNS/LET SET FOR 15 MIN, PMPD ½ BBL/PULLED STDG VALVE, PH w RODS & PMP PLGR/RELSD FB & LOWERD TBG TO 5830/FILLED HOLE w 8 BBLs 5% KCL WTR, REV CIRC, GOT PH OF 3 AFTR 30 BBLs, PH OF 7 AFTR 75 BBLs RTNS/PULLED TBG w TAIL TO 5500/SHUT WELL IN TILL AM 11-23-81/

11/23
LOWERD TBG FRM 5500-5837, NO FILL/POH w TBG, LD "THE" PMP BARREL/MU 2½" API T/L PMP SHOE ON 3½" OD MUD ANCHOR, RIH ON 11 JTS 2-7/8" TBB, ON BKR 7" ANCHOR CATCHER, ON 169 JTS 2-7/8" TBB/REMOV D BOE/SET ANCHOR @ 5383.84 & LANDED TBG w TBG ST @ 5766.68/RAN 2½"x1-3/4"x25 3-TUBE PMP ON 125 - 3/4 & 66 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, HUNG WEL ON/RDMO/WELL SHUT IN/ DROP FRM REPORT/
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12/1 CPS MIRU/POH w RODS & 3 TUBE PMP/REL BKR TENSION PKR/INSTL E DRILL/SIFN/

12/2 POH w 180 JTS 2-7/8" TBG/MU BROWN 7" 26#, 4 CUP w 1' SPACING BETWN CUPS, RIH ON 2-7/8" TBG TO 4500/RU BJ HUGHES/LONG BEACH CITY INSPECTOR SHUT RIG DN DUE TO HIGH NOISE LEVEL IN AREA/MADE WELL SECURE/SIFN/

12/3 WITH 7" 26# BROWN 4 CUP PKR @ 4500 (IN 9-5/8 CSG) BJ HUGHES FILLED HOLE w 162 BBLS OF 5% KCL WTR/LOWEER PKR TO 5700, BLANKD TOOL IN 7" CSG @ 3500 PSI/ LOWEER TOOL TO 5777, PMPD 2 BPM IN PERFS @ 1000 PSI @ 5776' 2 BBLS PER MIN @ 1000#, 5775' 2 BPM @ 500#, 5774' 2 BPM @ 500#, 5773' 2 BPM @ 500#, 5772' 2 BPM @ 500#, 5771 2 BPM @ 400#, 5770' 2 BPM @ 500#, 5769 - 2 BPM @ 600#, 5768' 2 BPM @ 600#, 5767' - 2 BPM @ 800#, 5766' - 1 BPM @ 1000#, 5765' - 2 BPM @ 1200#, 5764' - 2 BPM @ 1300 PSI/POH/RU DRESSER ATLAS, PERFORATED THE FOLLOWING INTERVLS w 4" O.D. CSG GUNS, 4 - .43" HOLES/FT, 22 - ½ GRAM JUMBO JET CHG, 15.07" PENETRATION, FRM 5757-5749, 5748-5738, 5736.5'-5734.5'-5733-5723.5'/ REL DRESSER ATLAS/RIH w 2-7/8" TBG, REMOVED BOE, SET BKR ANCHOR-CATCHER w 2500# TENSION, PMP SHOE @ 5737/SIFN/

12/4 20 HRS/0 BO, 224 BW/TBG 32#/CSG 0#/11 SPmx72" LOS/FL 3398, OP 2335/WELL OWES 130 BBLS OF KCL LOAD WTR/

12/5 24 HRS/0 BO, 153.5 BW, 1.5 BBLS MUD/TBG 30#/CSG 0#/11 SPmx72" LOS/FL 5478, OP 255/WELL PD BK ALL LOAD WTR PLUS 35 BBLS FRM WEL/

12/6 3.5 HRS/.2 BO, 10.3 BW/TBG 20#, CSG 0#/11 SPmx72" LOS/FL 5624, OP 109/WELL NOT PRODUCING/SHUT DN FOR STATIC BUILD UP, 13½ HRS, FL 5323, OP 510/

12/7 22 HRS/0 BO, 33 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPmx72" LOS/FL 5695, OP 39/LOW FLUID ENTRY/

12/8 6.5 HRS/0 BO, 5 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPmx72" LOS/WELL PMPD OFF @ 3:30 PM/SHUT DN PU/FLUID LEVEL AFT R 15 HRS WAS 5365, OP 368/ APPROX 11 BBLS ENTRY/

12/9 3 HRS/0 BO, 13 BW/TBG 9#/CSG 0 (VENTED TO BKR TANK)/11 SPmx72" LOS/FL 5644, OP 89/WELL QUIT PMPNG (PMPD OFF)/SHUT WELL IN @ 10:30 AM 12-9-81 FOR FL BUILD UP TST/7:30 AM 12-10-81/21 HRS FL 5282, OP 451/CSG 14#/ 12/10 SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 24#/FL 4935, OP 798/

12/11 SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 32#/FL 4650, OP 1083/

12/12 SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 38#/FL 4490, OP 1243/DROP FRM REPORT UNTIL TST IS COMPLETE/

1/15 FLUID LEVEL BUILD UP TST COMPLETE/RESUME OPERATIONS TO ACIDZ PERFORAT INTERVLS 5724-5736 & 5738-5756 TO REMOV SUSPECTD CLAY SWELLING & EMLUSION BLOCKAGE IN FORMAT/CPS MIRU/INSTL SD PROOFNG SCRN AROUND RIG & EQUIP/STAKED OUT RODS FILLED TBG w LSE WTR, TBG OK/POH w 65 - 7/8, 123 - 3/4"x30' SUCKER RODS & PMP/RELSD BKR TENSION ANCHOR-CATCHER/INSTL E BOP/POH w 167 JTS 2-7/8" TBG & CATCHER/SIFN
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1/16 POH w KILL STG/MU BKR 7" 26# CSG SCRPR ON 2-7/8" TBG, HYDROTESTNG TBG IN HOLE @ 5000 PSI (NO LEAKS) TO 5780, NO RESTRICTNS/POH/MU BKR 7" 26# MOD "C" BRIDGE PLUG ON BKR 7" 26# FULLBore PKR, ON 2-7/8" TBG, RIH TO 4500/CLOSD WELL IN TILL AM 1-18-82/

1/17 CONTD RIH w BKR BP & FB PKR/SET BP @ 5760/PU w FB @ 5755, FILLED HOLE w 277 BBLs PRODUCED WTR/RU BJ HUGHES, PMP 33 BBLs OF 2% AM-CL WTR ON TBG/PULLED FB UP & SET @ 5650/TSTD SURF LINES TO 4000 PSI/PMPD PRODUCED WTR IN ANNULS, PRESSURE UP TO 1000 PSI/OBTAINED BRK DN w 20 FT 3 OF AM-CL WTR @ 1 BBL PER MIN @ 2700 PSI/OPND UNLOADER & PMPD 600 GALS 15% HCL ACID w 2 GALS INHIBITOR & IRON CHELANT, PLUS 300 GALS OF 12% WTR, 3% HF ACID w ADDITIVES DN TBG/CLOSD UNLOADER, PRESS ANNULS TO 800 PSI/SQWD w 600 GALS OF 12% HCL 3% HF ACID @ 1 BBL PER MIN @ 2500 PSI, AFTR PMPNG 1500 GALS PRESSURE DRPD FRM 2500# TO 1750 PSI @ 2.5 BBL PER MIN RATE REMAINING CONSTANT THRU OUT JOB/CONTD SQNZNG AWAY w REMAINING 300 GALS OF 12-3 ACID FOLOWD w 600 GALS OF 15% HCL ACID & 1200 GALS OF DIESEL w 1% J-10 SURFACTANT/DISPL TBG w 25 BBLs 2% AM-CL WTR/REL FB, LOWERD TBG & RETRIEVED BP/POH w TBG & TOOLS/RIH w 179 JTS TBG/SIFN/

1/19 COMPLETD RIH w 2-7/8" TBG/REMOVD BOE/SET BKR ANCHOR-CATCHER @ 5350 w 12,000# TENSION, PMP SHOE @ 5703 & BTM OF MUD ANCHOR @ 5734.8/RAN 21"x13"x 12'x13' RHA PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, FILLED TBG w WTR/REMOVD SOUND SCREEN/RDMO/POR/IN TST 15 HRS/0 BO, 102 BW/TBG 42#/CSG #/11 SPMx72" LOS/FL 2677, OP 3008/ph OF 7/WELL OWES 260 BBLs OF LOAD WTR & ACID/

1/20 24 HRS/0 BO, 160 BW/TBG 40/CSG 39/11 SPMx72" LOS/FL 4431, OP 1254/ ph OF 7/ WELL OWES 100 BBLs OF LOAD WTR & ACID/

1/21 9¾ HRS/0 BO, 56 BW/TBG 40/CSG 66/11 SPMx74" LOS/FL 5685, OP @ PMP SHUT WEL DN @ 4:30 PM, PMPD OFF/WELL OWES 44 BBLs OF LOAD WTR & ACID/

1/22 POP @ 9:30 AM/TBG 65#/CSG 80#/FL 4928, OP 757/PRODUCED UNTIL PMP OFF/5¾ HRS/14 BBLs OF DIESEL w TRACE OF OIL, 16 BBLs WTR w MUD TYPE SEDIMENT/11 SPMx72" LOS/FL 5685, OP @ PMP SHUT IN UNTIL 7 AM 1-23-82/7:00 AM 1-23-82/ CSG 58#/FL 5054, OP 631/WELL OWES 14 BBLs OF LOAD WTR & ACID/

1/23 POP @ 9:30 AM/TBG 65#/CSG 58#/FL 5054/OP 631/PRODUCED UNTIL PMP-OFF 6 HRS/ 0 BO, 29 BW/TBG 63/CSG 63/11 SPMx72" LOS/FL 5685, OP @ PMP SHUT IN TILL AM 1-24-82/WELL HAS PD BK 14 BBLs OF LOAD WTR & ACID, PLUS 15 BBLs FRM WELL/7:00 AM 1-24-82/CSG 90#/FL 5126, OP 559/

1/24 POP @ 7 AM/TBG 65/CSG 90/FL 5126, OP 559/PRODUCED UNTIL PMP-OFF/5 HRS/1 BO, 24 BW/TBG 65/CSG 90/11 SPMx72" LOS/FL 5685, OP @ PMP SHUT IN TILL AM/8:00 AM 1-25082 CSG 80/FL 5001, OP 684/

1/25 4½ HRS/0 BO, 31 BW/TBG 68/CSS 15/11 SPMx72" LOS/FL 5685 @ PMP/7:00 AM 1-26-82/STATIC BUILD UP/18½ HRS/CSG 15/FL 5103, OP 583/

1/26 4 HRS/0 BO, 20 BW/TBG 58/CSG 16/11 SPMx72" LOS/FL 5685 @ PMP/7:00 AM 1-27-82/STATIC BUILD UP/20 HRS/CSG 16/FL 5023, OP 662/ DROP FRM REPORT/ AWAIT APPROVAL ON RECOMPLETION PROGRAM/
RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APROVD TO PLUG EXISTING PERFORATIONS & RECOMPLETE WELL IN THE "K" SAND/WELLTECK MIRU/POH w RODS & PMP/rel tbg anchor-CATCHER, INSTLD BOE, POH w 2-7/8" TBG, PMP SHOE & MUD ANCHOR/RIH w 2-7/8" TBG, OPN ENDED TO 5777/RU HALIB, FILLED HOLE w 300 BBLs LSE WTR/(RECOVER 8 BBLs OIL) HALIB MDX & PMPD 50 FT³ CL "G" CMT w 2% CaCl₂, ACROSS PERFS @ 5777-5724, DISPLACED w 178 FT³ LSE WTR/POH TO 4450, LEAVING EST TOC @ 5544/PLACING CMT PLUG FRM 5777, WITNESSED BY D.O.G. REP, MR. G. W. STACK/SIFEN/

RIH, TAGD TOC PLUG @ 5583/POH/MEAS & PU LYNES 9-5/8" SHOOT & TST TOOL w 2"x4" JET PERF GUN, CONTAINING 4 - ½" CHARGES, RIH ON 4-3/4" D.C. ON 132 JTS OF 2-7/8" TBG TO 4356/ROTATD TBG TO ACTIVATE GUN, PU & SET PKR @ 4296, OPENED TOOL, HAD FAINT BLOW FOR 10 MIN, DEAD FOR REST OF 1 HR TST/POH w TBG & TOOLS, HAD 120' OF FLUID IN TBG/INSPECTION SHOWD THAT GUN HAD NOT FIRED/TORE DN TOOLS & SENT TO SHOP/RIH w KILL STG/(NOTE: D.O.G. REP, G.W. STARK WITNESSED TOP OF CMT PLUG @ 5583)/SIFEN/

RIH w LYNES 9-5/8" SHOOT & TST TOOK, w 2'x4" GUN LOADED w 4 - ½" SHOTS, ON 4 - 4-3/4" DC's ON 132 JTS 2-7/8" TBG/SHOT 4 HOLES @ 4356/PU & SET PKR @ 4296 w TAIL @ 4324/HAD SLIGHT BLOW FOR 14 MIN, DEAD FOR REMAINDER OF 1 HR TST/REL PKR, POH, RECOVERD 120' OF WTR IN TBG/READ CHARTS, L.H. - 1850#, FH 1851#, 1.F. 43#, F.F. 55#/RU DRESSER ATLAS, RAN GAMMA RAY COR LOG FRM 4500-4000/PERFD 4412-4402, 4401-4391, 4391-4383, 4368-4376, TOT OF 143 SHOTS w 4" JUMBO JET 11 HOLLOW STEEL CARRIER GUNS w 4 - ½" HFP w 24.2 GRAMS CHARGES/REL DRESSER ATLAS/NOTE: UNABL TO DETECT ANY FLUID RISE AFTR SHOOTING/RIH w 156' OF 2-7/8" TBG TAIL BELOW BKR 9-5/8" 36# FB PKR ON 75 JTS 2-7/8" TBG TO 2548/SIFEN/

BLED WELL DN, HAD SLIGHT VAC ON CSG/CONTD IN HOLE w FB/RU HALIB, FILLED HOLE w 30 BBLs OF LSE WTR/SET FB @ 4205, ATMPTD TO TST ANNULUS @ 700#, WD NOT TST/PU & SET FB @ 4011, PMPD AWAY DN ANNULUS @ 14 FT³ MIN @ 350 PSI/RESET FB @ FOLLOWNG DEPTHS w SAME RESULTS 2005, 992/SET FB @ 105, PMPD AWAY @ 14 FT³ MIN @ 350 PSI w RTNS FRM TBG/SET FB @ 100', TSTD ANNULUS TO 1000# OK/LOWER FB TO 112, PMPD AWAY @ 14 FT³ MIN @ 350 PSI w NO COMMUNICATN THRU TBG/POH w FB/RAN KILL STG/SIFEN/

MU BKR 9-5/8" 36# BP ON BKR 9-5/8" 36# FULLBORE PKR ON 2-7/8" TBG, RIH TO 4300/SET BP/PB TO 2003, SET FB & TST 9-5/8" CSG @ 500 PSI OK/RECOVER BP, PU HOLE TO 110, SET FB, TSTD 9-5/8" TO 500 PSI OK/SET BP @ 135, PU SET FB @ 80', PMPD AWAY @ 12 FT³ MIN @ 300 PSI/REL FB/POH/DMPD 5 SX SIL SD, WAITD ½ HR, RIH & TAGD TOP OF SD @ 1211 SET FB @ 80'/OPEN VALVE ON 13-3/8" ACHIEV'D CIRC IMMEDIATELY, MDX & PMPD 60 FT³ AP1 CL "G", CMT w 2% CaCl₂, GOT CMT TO SURF, CLOS'D 13-3/8" VALVE & PMPD 113 FT³ OF CMT AWAY @ 14 FT³ OF CMT AWAY @ 14 FT³ MIN @ 350 PSI/SHUT PMP DN, TBG WENT ON A VAC/PMPD REMAINDR OF 200 SX, 57 FT³ @ SAME RATE & PRESS/CLEARD TOOLS & CSG w 20 FT³ OF FRSH WTR/SHUT WELL IN TILL AM 2-8-82/
1981

REL FB/LOWED FB TAGGED TOC @ 95'/POH/MU 8-3/4" BIT ON 9-5/8, 36# ROTOVERT
SCRPR ON 2 - 4-3/4" O.D. DCs, DRDL OUT CMT FRM 95-121 (TOP SD PLUG)/POH/
MU 9-5/8 36# FB, RIH TO 80, SET FB, PUT 500# ON BK SIDE, PMPD DN TGB,
ESTABLISHD BRK DN OF 1/2 BBL PER MIN @ 500 PSI, OPEN VALVE BETWN 13-3/8" &
9-5/8" ANNULAR SPACE, NO COMMUNICATNS/RELSD FB/POH/RAN 2-7/8 TGB OPN ENDED
TO 105, PMPD 25 FT³ CL "G" CMT w 2% CaCl₂, DISPL w 1.5 FT³ FRSH WTR/POH/
CLOSD BLIND RAMS & VALVE ON 13-3/8"/STRTBD BRADENHEAD SQZ @ 5 PM/SQZD AWAY 6
FT³ @ 6:30 PM, DID NOT EXCEED 500 PSI/SIFN/

2/9
BLED WELL DN, HAD 200 PSI ON ANNULS/RIH w 8-3/4" BIT ON 9-5/8" 36# ROTO
VERT SCRPR ON 1 - 4-3/4 DC/DRDL OUT CMT FRM 57-106, CMT STGRS TO 111'/PRESS
TSTD 9-5/8" CSG TO 500 PSI, HELD FOR 15 MIN OK/POH LAYNG DN DC SCRPR & BIT/
MU BRIDGE PLUG RETRIEVNG HD, RIH ON 2-7/8" TGB, CIRC OUT SD FRM 121-135,
RETRIEVNG 9-5/8" 36# BP/POH/LOADD OUT POWER SWIVEL & TOOLS/RIH w 158' of 2-7/8
TGB TAIL ON 9-5/8" 36# FB PKR ON 2-7/8" TGB TO 200'/SIFN/

2/10
CONTD RIH w 2-7/8 TGB TAIL @ 4411, PMPD & SPOTD 1200 GALS 15% HCL ACID w
ADDITIVES ACROSS PERFDS FRM 4411-4368/PUB, SET FB @ 4204 & TGB TAIL @ 4364,
PRESS ANNULS ABOV PKR w 500 PSI/HALIB PMPD REMAINING 600 GALS OF 15% HCL
ACID AWAY INTO PERFDS w MAX RATE OF 56 GALS MIN @ 2500 PSI/FOLOWD w 1800
GALS OF 12% HCL, 3% HF ACID & REQUIRED ADDITIVES, w MIN PMPG RATE OF 56
GALS MIN @ 2000 PSI @ STRT, TO MAX PMP RATE OF 95 GALS MIN @ 1600 PSI/FOLOWD
ACID w 25 BBLS 2% AM CL WTR, DISPL TGB w 25 BBLS LSP PROD WTR @ 95 GAL MIN
RATE @ 1600 PSI @ FINISH/REL FB/POH LAYNG DN 48 JTS OF 2-7/8 TGB & FB/MU &
RAN 3½" OD MUD ANCHOR, 2½" AP1 T/L PMP SHOE, 4 JTS 2-7/8 TGB, 2-7/8×9-5/8"
36# PAGE "R" TGB ANCHOR, 1 JT 2-7/8 TGB, PAGE "R" TGB DRAIN ON 25 JTS
2-7/8 TGB/SIFN/

2/11
CONTD RIH w 106 JTS 2-7/8" TGB/LANDED TGB w ST @ 4393.29, PMP SHOE @
4360.66/REMOVD BOC/PU OILWELL 2½"×1½"×10′×13′ ACID PMP ON 107 - 3/4×30 & 36
7/8×30′ SUCKER RODS/SEATED & SPAC'D OUT PMP/FILLED TGB w LSP PROD WTR/RDMO/
WELL OWES 498 BBLS LOAD WTR & ACID/PUT WELL ON PRODUCTION INTO BKR TK @
4:30 PM/IN TST 14 HRS/0 BO, 133 BW/TGB 50/CSS 0′/11 SPM×72" LOS/FL 1536,
OP 2813/PH 2/WELL OWES 365 BBLS LOAD WTR & ACID /

2/12
24 HRS/0 BO, 187 BW/TGB 50/CSS 3/11 SPM×72" LOS/FL 3656, OP 693/PH 5/WELL
OWES 178 BBLS OF LOAD WTR & ACID /

2/13
11½ HRS/0 BO, 59 BW/TGB 35/CSS 18/11 SPM×72" LOS/FL 4349 @ PMP/WELL OWES
119 BBLS OF LOAD WTR & ACID/SHUT WELL DN 6:30 PM 2-13-82/PMPD OFF /

2/14
WELL SHUT IN FOR STATIC FLUID BUILD UP /

2/15
WELL SH FOR 36.5 HRS, STATIC BUILD UP/FL 3698, OP 651, PRIOR TO STRT UP
@ 7:20 AM 2-15-82/PMPD 4 HRS/0 BO, 41 BW/11 SPM×72" LOS/FL 4349 @ PMP/SHUT
WELL IN @ 11:20 AM 2-15-82/

2/16
WELL SH FOR 20½ HRS, FLUID BUILD UP/FL 4123, OP 226, (226' RISE)/POP @
8:00 AM/1 HR 45 MIN/0 BO, 11 BW/CSS 16/FL 4349 @ PMP/SHUT WELL DN/PMPD OFF/
1981

2/17 WELL SI FOR 22 HRS, FLUID BUILD UP (125') FL 4224, OP 125/CSP 16/POP @ 8:00 AM 1 HR 15 MIN/O BO, 7 BW/CSP 16/FL 4349 @ PMP/SHUT WELL DN @ 9:15 AM, PMPD OFF/DROP FRM REPORT/

2-24 RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APPROVED/TO PLUG EXISTING PERFORATIONS IN THE "K" SD & RECOMPLETE IN THE "I" SD/CPS MIRU/PULLED 36-7/8" & 107 - 3/4x30' SUCKER RODS & PMP/INSTL BOP/POH w 136 JTS 2-7/8" TGB (4328)/RIH w SINKER BAR ON SD LINE TO 5500 (83' FILL)/CMT PLUG @ 5583/RIH w 136 JTS OF 2-7/8" TGB, OPN ENDED TO 4328/SIFN/

2-25 LOWERD TGB TO 4423/RU CIRC PMP, FILLED HOLE w 325 BBLs OF PROD WTR/ RU HALIB MXD & PMPD 75 FT' GLASS "G" CMT w 2% CaCl₂, DISPL w 24 BBLs PROD WTR/CMT IN PLACE @ 11:20 AM/PU TO 4225, REV CIRC w 50 BBLs OF PROD WTR/ MR. W. SANTIAGO w D.O.G. WITNESSED PLACEMENT OF PLUG/POH w 10 STDs/SIFN/

2-26 LOWERD TGB & LOCATD TOP OF CMT PLUG @ 4243/WITNESSED & APPROVED BY D.O.G./POH w TGB/MU JOHNSTON SHOOT & TST TOOLS ON 2-7/8" TGB, SHOT 4 - 3/8" HOLES @ 4031/MADE 1 HR WSO TST w PKR SET @ 3959 & TAIL TO 3988, HAD MED TO LIGHT BLOW FOR 25 MIN, DEAD REMAINDER OF TST/PULLED TGB & TST TOOLS, HAD 64' FLUID RISE IN TGB, INITIAL HYDRO 1733, INITIAL FLOW 40.5, FINAL FLOW - 46, FINAL HYDRO 1704/WSO WITNESSED & APPROVED BY D.O.G. REP WILLIAM E. BRANNON/RU DRESSER ATLAS/RIH w CENTRALIZED 4" OD JUMBO JET II HOLLOW STEEL CARRIER GUNS w 22.5 GRAM CHARGE, PERFD 9-5/8" CSG w 4 - 1" HPF, @ 4119-4109, 4108-4091, 4069-4059, 4058-4038, TOT OF 234 HOLES, HAD 10 MIS FIRES ON BMT OF 1st GUN RUN/REL DRESSER ATLAS/RIH w 600' KILL STG TGB/SIFN/

2-27 POH w KILL STG/RAN SNKR BAR TO 4243, NO FILL/RIH w 9-5/8" 36# BKR FB PKR w 160' OF 2-7/8" TAIL ON 2-7/8" TGB, TAIL @ 4049, FILLED HOLE w 40 BBLs LSE WTR/SET PKR @ 3888, TSTD ANNULSU TO 500 PSI, OK/REL FB & LOWERD TGB, TGB TAIL TO 4118/HALIB SPOTTED 1000 GALS OF 15% HCL PAD ACID ACROSS PERFS
4118-4036/PU & SET FB @ 3878 TAIL @ 4038, PRESS ANNULSU w 500#/HALIB SQD ABOY 300 GALS 12% HCL - 3% HF ACID @ 13 FT³ PER MIN @ 1250 PSI, PMPD 125# BENZOIC FLAKES, FOLW w 500 GALS 12-3 ACID @ 13 FT³ PER MIN @ 1500# PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 17 FT³ PER MIN @ 1500 PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT³ PER MIN @ 1250 PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT³ PER MIN @ 1200 PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID, @ 24 FT³ PER MIN @ 1200 PSI, OVERFLSHD ACID w 1001 GALS OF 2% AM/CL WTR @ 24 FT³ PER MIN @ 1100 PSI/POH w GAS ANCHOR, PMP SHOE ON 40 STDs OF 2-7/8" TGB/SIFN/(NOTE: WELL OWES TOT OF 509 BBLs OF LOAD WTR & ACID)/

2-28 CONTD RIH w 2-7/8 PROD STG TGB (125 JTS TOT)/REMOVED BOE & LANDED TGB @ 4033, w SHOE @ 4001', & PAGE 2-7/8X9-5/8-36# ANCHOR @ 3873/RAN OILWELL 23"x11'x10'x13' RHA ACID PMP ON 98 - 3/4"x30' & 33 - 7/8"x30' Sucker RODS/ SEATED & SPACD PMP FILLED TGB w LSE WTR/POP THRU PORTABLE TSTR INTO BKR TK/ RDMO/IN TEST 17 HRS/O BO, 166 BW/TGB 12#/CSP 0#/11 SPMx72" LOS/FL 607, OP 3393/WELL OWES 343 BBLs OF LOAD WTR & ACID pH 4/

3-1 24 HRS/0 BO, 226 BW/TGB 12#/CSP 33#/11 SPMx72" LOS/FL 722, OP 3278/WELL OWES 117 BBLs OF LOAD WTR & ACID pH 5/
DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLB #8-7
Sec.13,T4S,R13W

1982

3-2 24 HRS/Ø BO, 195 BW/MBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL
   HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/
3-3 24 HRS/Ø BO, 233 BW/MBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/
3-2 24 HRS/Ø BO, 195 BW/MBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL
   HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/
3-3 24 HRS/Ø BO, 233 BW/MBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/
3-4 24 HRS/Ø BO, 195 BW/MBG 12/CSG 16/11 SPMx72" LOS/FL 755, OP 3246/pH 5/
3-5 24 HRS/Ø BO, 208 BW/MBG 12/CSG 16/11 SPMx72" LOS/FL 736, OP 3265/pH 5.5/
3-6 24 HRS/Ø BO, 212 BW/MBG 19/CSG 16/11 SPMx72" LOS/pH 5.5/
3-7 24 HRS/Ø BO, 208 BW/MBG 19/CSG 16/11 SPMx72" LOS/FL 736, OP 3265/pH 5.5/
3-8 24 HRS/Ø BO, 239 BW/MBG 38/CSG 16/11 SPMx72" LOS/FL 723, OP 3278/
   pH 7/
3-9 24 HRS/Ø BO, 234 BW/MBG 30/CSG 16/11 SPMx72" LOS/FL 745, OP 3256/pH 7/
3-10 24 HRS/Ø BO, 200 BW/MBG 19/CSG 16/11 SPMx72" LOS/FL 735, OP 3265/pH 7/
3-11 WELLTECK MIRU/POH w RODS & PMP/UNLANDED MBG/INSTLD BOP/POH w MBG/MU
   BKR 9-5/8" 36# FULLBORE PKR, RIH TO 4025, FILLED HOLE w 60 BBLS OF LSE PROD
   WTR (RECVRD APPRX 25 BBLS CRD OIL FRM ANNULS)/SET FB @ 4035, HAD COMMUNIC-
   ATION PUMPING DN ANNULS & DN MBG/RESET FB @ 4028.68", HAD COMM/RESET FB @
   4026.68 PESS UP ANNULS @ 500 PSI HELD OK/RIH TO 4121, SET FB, PMPD DN MBG,
   PRESS TO 700 PSI, HELD OK/PU TSTNG 1' @ A TIME @ 4116' HAD COMM/REL FB PUH TO
   3468/
3-12 MEASURED PULLING OUT OF HOLE, TBG TALLEYS OK/RIH w KILL STG/SHUT
   WELL IN TILL AM 3-15-82/WAIT ON PROGRAM & APPROVAL/
3-15 BLEW WELL DN/POH w KILL STG/TAGGED FILL @ 4233, CLND FINES TO 4237
   (COULDN'T GET DPR)/PBD 4243, PU TO 4232 TO SPOT SD/RU HALIB, PLUGGED BOTH PMPS
   ON TRUCK w SD, REPLACEMENT TRK BROKE DN ON FREWAY, PMP TRK ARRIVED @ 3 PM/SPOTD
   90 FT³ SILICA SD IN FOUR STGS FRM 4237-4030 (EST) TOP OF SD/PU TO 3022/SIFN/
1982

3-16 BLED WELL DN/LOWER TBG, TAG SD @ 4040/POH, RAN SCHLUM DMP BAILER, TAG SD @ 4034/BHT 140°/POH, MX ½ SX HYDROMITE SET FOR 160°/RIH SET TOOL OFF @ 4034/POH, HYDROMITE SAT UP IN BAILER/RIH w 9-5/8" FB TO 3760/FILLED HOLE w 26 BBLs LSE WTR/SET FB, PRES TO 500 PSI ON CSG/EST BRK DN OF 2 BPM @ 550 PSI/ PMP 25 SX THIXOTROPIC CMT FOLLOWD BY 75 SX CL "G" CMT w 2% CaCl₂ & 6/10 OF 1% HALAD 9, DISP w 154 CF LSE WTR, PRES TO 1400 PSI/WAIT 20 MIN, DISP 22 CF @ 1675 PSI/EST TOP OF CMT @ 3883/CLOSE WELL IN w 1500 PSI ON TBG/PMP 51 CF CMT OUT HOLES/

3-17 BLED WELL DN/(HAD 150 PSI, SHUT IN PRESS ON TBG)/REL FB PKR/POH/MU 4 - 4-3/4" OD DRL CLRS ON 8-3/4" BIT, RIH ON 118 JTS OF 2-7/8" TBG, TAGD TOC @ 3885/RIGGED UP POWER SWIVEL, DRLD OUT CMT TO 4020 LEAVNG 11' CMT ABOV WSO HOLES @ 4031/POH, LAYD DN 21 JTS 2-7/8" TBG/BIT @ 3694/SIFN/

3-18 BLED WELL DN/REMOV BD/LANDED TBG w BIT @ 3707/RIH w RODS/LD DN 7 - 3/4", 6 - 7/8"x30' SUCKER RODS/CLND LOCATN/RDMO/WOC BEFORE CLN OUT & LOGGING/ DROP FRM REPORT/

3-22 WELLTECH MIRU/BLED WELL DN/POH w RODS/UNLANDED TBG/INSTLD BOE/PICKED UP 11 JTS 2-7/8" TBG, RIH/DRDL OUT CMT FRM 4020-4025/BEGAN TSTNG TO 700 PSI EVERY 1' TO 4033, TSTS ALL ÒK/DRDL THRU CMT @ 4040/CLND OUT SD TO 4110/POH TO 3523/SIFN/

3-23 BLED WELL DN/(VAC ON TBG) LOWERD 8-3/4" BIT TO 4110/FILLED HOLE w 7 BBLs LSE WTR, CONTD CLEANING OUT SD FRM 4110-4237/POH/RAN 8-3/4 BIT ON 9-5/8" 36# BRK CSG SCRPR TO 4235, CIRC OUT FINE CMT TO 4237/POH/RIGGED UP SCHLUM RAN GAMMA RAY - CMT BOND LOG FRM 4200-3348/SIFN/

3-24 BLED WELL DN/LD DN 4-3/4" DC/MU 9-5/8" 36# BRK CIRC WASH TOOL w 2' CUP SPACING, RIH ON 2-7/8" TBG TO 4007, TSTD TOOL, BLANKD OFF @ 1000 PSI/ CONTD IN HOLE w TOOL TO 4121-4119, BLANKD OFF @ 1000 PSI/PU TO 4118-4116 & TSTD PERFS EVERY 2' w AVG MAX BRK DN OF 500 PSI @ 15 FT³ PER MIN RATE & AVG FINAL PRESS OF 500 PSI @ 15 FT³ PER MIN RATE, THROUGHOUT PERFD INTERVAL/FOLOWNG INTERVALS BLANKD OFF @ 1000 PSI, 4094-4092, 4086-4074, 4050-4048, 4046-4078/ POH, LD DN TOOL/RIH w KILL STG/SIFN/

3-25 BLED WELL DN/POH w KILL STG/RAN PROD TBG STG w PAGE TBG ANCHOR @ 3829, API T/L PMP SHOE @ 3957 & BTM OF MUD ANCHOR @ 3989.59/REMOV BD/LANDED TBG/RIH w OILWELL 3 TUBE 2½"x1-3/4"x25' PMP ON 97 - 3/4 & 32 - 7/8"x30' "EL" SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w LSE PROD WTR/POP INTO BRK RK/RDMO/WELL OWES 154 BBLs WTR/IN TST 19 HRS/O B0, 207 Bw/1TBG 5#/CSG 0#/11 SPMx 72" LOS/FL 2636, OP 1322/(FLOWLINE CUT CONTAINED 1% MUD)/WELL PAID BK LOAD WTR, PLUS 53 BBLs FRM WELL)/
1982

3-26
10 HRS/O BO, 90 BW/TBG 5#/CSG 17#/11 SPMx72" LOS/WELL PMPD OFF @ 5:00 PM 3-26-82/SHUT WELL IN/FL 3956 @ PMP/FL @ 7:00 AM, 3-27-82 3602', OP 354'/

3-27
5 HRS/O BO, 28 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/

3-28
2 HRS/O BO, 14 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/

3-29
1½ HRS/O BO, 8 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN 3-30-82/FLUID RISE 20 HRS, 114'/DROP FRM REPORT/WELL TO BE SHUT IN 7 DAYS FOR BUILD UP/

5-3
14 HRS/98 BO, 60 BW/TBG 7#/CSG 19#/11 SPMx72" LOS/FL 3957 @ PMP/
NOTE: WELL HAS BEEN SHUT-IN FOR BUILD UP SINCE 3-29-82/FLUID LEVEL PRIOR TO PUTTING ON PROD, 1723', OP 2234'/

5-4
NO ACTIVITY/DROP FRM REPORT/

5-14
WELL SHUT-IN PENDING EVALUATION FOR STIMULATION PROGRAM/DROP FRM REPORT/

9-7
WELL TA'D 5-14-82/FINAL REPORT/
L. R. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P.O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
April 20, 1982

Your operations at well NWLBU 8-7, API No. 037-22512
Sec. 15, T4S, R13W, S.B. B & M. Long Beach Field, in Los Angeles County,
were witnessed on 2/26/82 by W. E. Brannon, Engineer, representative of
the supervisor, was present from 1400 to 1600. There were also present J. Icardone

Present condition of well: 20" cem 50', 13-3/8" cem 1122', 9-5/8" cem 4715', perf 4031' &
4356' & 4693' WSO, perf 4368-4412'; 7" cem 4626-5847', perf @ int. 5724-5777',
TD 5847 Plugged w/cem 5777-5583' & 4423-4242'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4031' with
a formation tester.

DECISION: APPROVED

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

WEB: csw

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By

Deputy Supervisor

T. I. Harnotn
Operator: Sun Exploration & Production Co

Well designation: NWLBU 8-7

Field: Long Beach, County Los Angeles

Was tested for water shutoff on 2-26-62. (Name) W.M. Brown, representative of the supervisor, was present from 1400 to 1600. Also present were T. Icardone.

Casing record of well: 20" 1st: 55.1" 13 3/4" 1st: 1122" 9 5/8" 1st: 4115, perf 4081, 4556

The operations were performed for the purpose of D-1 - 9 5/8" - 4081

☐ The 9 5/8" shutoff at 4081 is approved.
☐ The seal between the __________ and __________ casings is approved.
☐ The operations are approved as indicating that all of the injection fluid is confined to the formations below __________ at this time.

Hole size: __________ fr. __________ to __________; __________ to __________; & __________ to __________

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<td>Volume Annulus Casing Away</td>
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Depth or interval tested: 4 - 1/2" holes (2), 4081.
The hole was open to 4243' for test.

FORMATION TEST:

Packer(s): 3459 & Tail 3568, Bean size 3 1/4" Cushion NONE

IHP 123 1/2    IPF 41    FFP 40    PHP 1704

Blow medium blow for 10 min. light blow for 20 min. Then dead remainder of test.

Open for test: ONE Hr. __________ min. Fluid entry 10 feet oil & water

BAILING TEST:
The hole fluid was bailed to __________', at __________ on __________.
The hole fluid was found at __________', at __________ on __________.

PRODUCTION TEST:

Gauge/meter reading __________ on __________ 19, at __________ pump depth __________' Engr.

Gauge/meter reading __________ on __________ 19, at __________ Engr.

Fluid level __________' surveyed on __________ 19, reviewed (witnessed) by __________.

Total fluid produced, Bbls. __________. Net oil __________ Water __________.

Rate: __________ B/D oil, __________ B/D water, __________ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at __________ B/D & __________ psi on __________ 19.

fluid confined below __________' (Packer depth __________')
DEFICIENCIES—TO BE CORRECTED  

NONE

DEFICIENCIES—CORRECTED  

NONE

CONTRACTOR  

California Production Service, Inc.
Votre operation at well NWLBUS 8-7, API No. 037-22512, Sec. 13, T4S, R13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-25-82 by E. Santiago, Engineer, representative of the supervisor, was present from 1030 to 1130. There were also present L. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715'. perf 4356' WSO & 4693' WSO; 7" cem 4626' - 5847', perf @ int 5724' - 5777' & 4368' - 4412'. TD 5847'. Plugged w/cem 5777' - 5583' & 4423' - 4242'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of plugging back to abandon lower zone.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

ES:da
cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor
By [Signature]
DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator: Sun Oil Exploration & Production Co.
Well No.: NWLB 8-7
API No.: 087-22512
Field: Long Beach, County: L.A.
On: 2/25/22
Mr. E. Santiago, representative of the supervisor was present from 10:30 to 11:30.
There were also present: Joe Incardone.

Casing record of well: 20" Cem 50', 133/8" Cem 1122', 9 5/8" Cem 4715, perf 4356, wizo 4623' wizo; 7" Cem 4626'-5841', perf @ int. 5791'-5775' 4 388'-4412'. TD 5817
Plugged up w/cem 5577'-5583', & 4422'-4242'.

The operations were performed for the purpose of (N) Plugging back Abandoner-Blower Zone.

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @_________ is approved.

Hole size: ______" fr. ______' to ______', ______" to ______' & ______" to ______'

<table>
<thead>
<tr>
<th>Casing Size</th>
<th>Wt.</th>
<th>Top Date</th>
<th>Bottom Date</th>
<th>MO-Depth</th>
<th>Volume</th>
<th>Annulus</th>
<th>Casing Squeezed Away</th>
<th>Final Press. Perfs.</th>
</tr>
</thead>
</table>

Casing/tubing recovered: ______" shot/cut at ______', ______', ______' pulled fr. ______';
________" shot/cut at ______', ______', ______' pulled fr. ______'.

Junk (in hole):

Hole fluid (bailed to) at ______'. Witnessed by

<table>
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<tr>
<th>Mudding</th>
<th>Date</th>
<th>Bbls.</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
<th>Engr.</th>
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</table>

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<tr>
<th>Cement Plugs</th>
<th>Placing</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
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</thead>
<tbody>
<tr>
<td>Date</td>
<td>Sx./sf</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>2/28/22</td>
<td>60 sf</td>
<td>Tub @ 5777'</td>
<td>19.30</td>
</tr>
<tr>
<td>2/28/22</td>
<td>65 x</td>
<td>Tub @ 4422'</td>
<td>10.30</td>
</tr>
</tbody>
</table>
DEFICIENCIES—TO BE CORRECTED

NONE

DEFICIENCIES—CORRECTED

NONE

CONTRACTOR  CALIFORNIA PRODUCTION SERVICE, INC.
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
March 3, 1982

Your proposal to rework well NWLBU 8-7,
A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M.,
Long Beach field, Northwest Extension area, Brown pool,
Los Angeles County, dated 2-22-82, received 2-23-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To test the effectiveness of the 9-5/8" shut-off at 4030'.
   c. To witness the location and hardness of the cement plug at 4250'.

RM:da

cc: Update
Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDIN, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.
Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLBU 6-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth: 5947' PBTD 5583'

2. Complete casing record, including plugs and perforations:
   - 13 3/8", 54.5# CSG 0-1122'
   - 9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
   - 7", 26# CSG 4626-5847' (1.607 GALLONS/FT)
   - TD 5847'; PBT 5583'
   - PERFS: 4-1/2" JHPF FROM 4368-4376' & 4383-4412'
     WSO @ 4356'
   - 2 7/8", 6.5# TBG 0-4393' (.2431 GALLONS/FT)

3. Present producing zone name: Brown "k" Zone in which well is to be recompleted: Brown "I"

4. Present zone pressure: 1150 PSI New zone pressure: 1150 PSI

5. Last produced:
   - 2/16/82 (Oil, B/D)
   - 0 (Water, B/D)
   - 11 (Gas, Mcf/D)
   - 0 (Surface pressure, psig.)

6. Last injected:
   - (Date)
   - (Water, B/D)
   - (Gas, Mcf)

The proposed work is as follows:

1. MIU
2. SPOT CMT PLUG FROM 4423-4250': DOG TO WITNESS AND APPROVE
3. SHOOT WSO @ 4031. DOG TO WITNESS.
4. SQUEEZE CMT W/450 SX IF REQD. RE SHOOT WSO @ 4030.
5. PERFORATE FROM 4118-4041', 4087-4080', AND 4068-4038' W/4-1/2" JHPF
6. ACIDIZE W/1000 GALL 15% HCL AND 3000 GALL 12% HCL 3% HF ACID
7. RETURN WELL TO PRODUCTION.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 25322 W RYE CANYON ROAD
          VALLENCIA, CALIFORNIA 91355-5060
          Telephone Number: 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
      SUN PRODUCTION DIVISION

Type of Organization: CORPORATION
      (Corporation, Partnership, Individual, etc.)

Name of Operator: (Name) Carroll
      (Date) 2/22/82
L. R. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-4-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1250 to 1330. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4775', perf 4356', WSO & 4693' WSO; 7" cem 4626' - 5847', perf @ int 5724' - 5777'. TD 5847'. Plugged w/cem 5777' - 5583'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4356' with a formation tester.

DECISION: APPROVED.

NOTE:
DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS: db
cc: Update
Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor
By [Signature]
Deputy Supervisor
Operator: Sun Oil Company  
Well designation: NwBlx 8-7  
Sec. 13, T. 45, R. 13W, Sec 6 M.  
Field: Long Beach, County: Los Angeles  
Was tested for water shutoff on 2-4-82. (Name) G. W. Stack, representative of the supervisor, was present from 12:50 to 1:30. Also present were J. Incardone, PF.  
Casing record of well: 20' cement 50; 132' cement 122; 93' cement 4715, perf 4356, 4850  
& 4693; WSO; 7' cement 4626-5841, perf @ int. 5724-5771. T. D. 5847. Plugged w/cement 5777-5523.  
The operations were performed for the purpose of (D) - 1. 4356'  
- The 958" shutoff at 4356' is approved.  
- The seal between the ____ " and ____ " casings is approved.  
- The operations are approved as indicating that all of the injection fluid is confined to the formations below ____ " at this time.  

Hole size: _______ " fr. _______ " to _______ "; _______ " to _______ " & _______ " to _______ "  

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</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Date</td>
<td>MO-Depth</td>
<td>Volume</td>
<td>Annulus Casing</td>
</tr>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Date</td>
<td>MO-Depth</td>
<td>Volume</td>
<td></td>
</tr>
</tbody>
</table>

Depth or interval tested 4 - 4.5 holes 84 356'  
The hole was open to _______ " for test.  

FORMATION TEST:  
Packer(s) 4278 & _______ Tail 4326 Bean size 3/4 " Cushion 0.  
IHP 1850  
IPF 43  
FFP 55  
FHP 1851  
Blowdown light decreasing to dead in 14 min.  
Open for test 1 Hr. 0 min. Fluid entry 70' hole fluid.  

BAILING TEST:  
The hole fluid was bailed to _______", at _______ on _______ 19.  
The hole fluid was found at _______", at _______ on _______ 19.  

PRODUCTION TEST:  
Gauge/meter reading _______ on _______ 19, at _______ pump depth _______ " Engr.  
Gauge/meter reading _______ on _______ 19, at _______ Engr.  
Fluid level _______ " surveyed on _______ 19, reviewed (witnessed) by _______  
Total fluid produced, Bbls. _______ Net oil _______ Water _______  
Rate: _______ B/D oil, _______ B/D water, _______ % water cut  

INJECTION SURVEY:  
RA/Spinner/Temperature survey run at _______ B/D & _______ psi on _______ 19,  
fluid confined below _______ " (Packer depth _______).
Deficiencies Corrected
none

Deficiencies to be Corrected
none

Contractor: Well Tech, Inc.
L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512
Sec.13, T.4S, R.13W. S.B.B.& M. Long Beach Field, in Los Angeles County,
were witnessed on 2-3-82. G. W. Stark, Engineer, representative of
the supervisor, was present from 1800 to 1830. There were also present D. Wang,
Drilling Foreman.
Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715'.
perf 4693' WSO; 7" cem 4626'–5847', perf @ intervals 5724'–5777'.
TD 5847'.

The operations were performed for the purpose of Inspecting the blowout prevention
equipment and installation.

DECISION: APPROVED.

NOTE:

DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor
DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

Visits: Date Engineer Time Operator's Rep. Title
1st: 2-3-82 G. W. Stark 19:00 to 19:30 D. Wang DF
2nd

Casing record of well: 26" Cam 00' to 37' Cam 920' to 27' Cam 462' to 58' perf 4625' to 5847' perf @ intervals 5722' to 5777' to 5847'

Operation: Testing (inspecting) the blowout prevention equipment and installation.
Decision: The blowout prevention equipment and installation are approved.

Proposed Well Ops: Perform zonal MPSP: psi
Hole size: / fr. to / fr. to / fr. to

Casing Record (BOPE Anchor String Only)

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at CP at</th>
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</table>

Cement Details

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<tr>
<th>BOP Stack</th>
<th>size</th>
<th>grade</th>
<th>shoe at cp</th>
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Test Data

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<tr>
<th>API Symb.</th>
<th>Ram</th>
<th>Mfr.</th>
<th>Model or Type</th>
<th>Size In.</th>
<th>Press. Rtg.</th>
<th>Date Last Overhaul</th>
<th>Gal. to Close</th>
<th>Rec. Time Min.</th>
<th>Calc. GPM Output</th>
<th>psi Drop to Close</th>
<th>Secs. to Close</th>
<th>Test Date</th>
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</thead>
</table>

Actuating System

Accum. Unit(s) Wkg. Press. psi
Total Rated Pump Output gpm
Distance From Well Bore ft.

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<tr>
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<tbody>
<tr>
<td></td>
<td>gal.</td>
<td>psi</td>
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</table>

Control Stations

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<tbody>
<tr>
<td></td>
<td>gal.</td>
<td>psi</td>
<td></td>
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</tbody>
</table>

N2 Cyl No: Tpe. 1 gal
Other:

EMERG. BACKUP SYST. Press. Wkg. Fl.

Hole Fluid

<table>
<thead>
<tr>
<th>Monotoring Equipment</th>
<th>Alarm</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>Aud.</td>
<td>B</td>
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<tr>
<td>Pit Level Indicator</td>
<td>Vis.</td>
<td>A</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td></td>
<td></td>
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<tr>
<td>Pit Level Recorder</td>
<td></td>
<td>C</td>
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<tr>
<td>Flow Sensor</td>
<td></td>
<td></td>
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<tr>
<td>Mud Totalizer</td>
<td></td>
<td></td>
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<tr>
<td>Calibrated Trip Tank</td>
<td></td>
<td></td>
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<tr>
<td>Other:</td>
<td></td>
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</table>

Hole Fluid Type

<table>
<thead>
<tr>
<th>Hole Fluid Type</th>
<th>Weight</th>
<th>Storage-Pits</th>
</tr>
</thead>
</table>

Remarks:

OGD 9 (10/80/3M)
DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

None

CONTRACTOR  Well Tech, Inc.
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
February 17, 1982

Your proposal to rework well NWLB 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-3-82, received 2-4-82, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To witness the location and hardness of the cement plug at 5620'.

RM: da
cc: Update
Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDIN, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY

<table>
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<tr>
<th>BOND</th>
<th>OGD114</th>
<th>OGD121</th>
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DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. **NWLB UNIT #8-7**, API No. **037-22512**,

Sec. 13, T. 4S, R. 13W, SB B. & M., **LONG BEACH** Field, **LOS ANGELES** County.

The present condition of the well is as follows:

1. Total depth. **5837'** PBTD **5837'**

2. Complete casing record, including plugs and perforations:
   
   13 3/8", 54.5# CSG 0-1122'  
   9 5/8", 36# CSG 0-4715' (3.247 Gallons/FT)  
   7", 26# CSG 4626-5847' (1.607 Gallons/FT)  
   T.D. 5847'; PBTD 5837'  
   PERFS: 8- .33" JHPF FROM 5764' - 5777'  
   4- 1/2" JHPF FROM 5724' - 5736' AND 5738' - 5756'

3. Present producing zone name: **BROWN - "V"** Zone in which well is to be recompleted **BROWN - "K"**

4. Present zone pressure. **1200 PSI** New zone pressure **1200 PSI**

5. Last produced **1/26/82**  
   (Date)  
   (Oil, B/D)  
   0  
   (Water, B/D)  
   20  
   (Gas, Mcf/D)  
   0  
   (Surface pressure, psig.)

6. Last injected  
   (Date)  
   (Oil, B/D)  
   0  
   (Water, B/D)  
   20  
   (Gas, Mcf)  
   0  
   (Surface pressure, psig.)

The proposed work is as follows:

1. **MIRU**  
2. **SPOT CMT PLUG FROM 5777' - 5620'. DOG TO WITNESS PLACEMENT AND LOCATION OF PLUG.**  
3. **PERFORATE WELL FROM 4383' - 4411' AND FROM 4368' - 4376' W/4 1/2" JHPF.**  
4. **ACIDIZE AS FOLLOWS: 1800 GALLONS 15% HCR, 1800 GALLONS 12% HCl-3% HF, 25 BBL 2% AM-CL WATER.**  
5. **RIH W/RODS, TBG, AND ACID PUMP. RTP.**

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address **25322 W RYE CANYON ROAD**  
**VALENCIA** **CALIFORNIA** **91355-0560**

Telephone Number **805/257-6200**

**SUN EXPLORATION AND PRODUCTION COMPANY**

**SUN PRODUCTION DIVISION**

**CORPORATION**

OG107 (07-75-CSR1-15M)

Name of Owner: **Carr**  
**2/3/82**  
(Date)  

Type of Organization: **CORPORATION**

(Corporation, Partnership, Individual, etc.)
L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
October 21, 1981

Your operations at well NULBU 8-7, API No. 037-22512
Sec. 13, T4S, R13W, S.B. B. & M. Long Beach Field, in Los Angeles County,
were witnessed on 9-21-81. R. Manuel, Engineer, representative of
the supervisor, was present from 1145 to 1215. There were also present Don Rodgers,
Drilling Foreman.

Present condition of well: 20" cem 50' ; 13-3/8" cem 1122' ; 9-5/8" cem 4715' , perf
4693' WSO, TD 4906' (Drilling).

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4693' with
a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

RM: dh
cc: Update

/Th/D. Daniels (Sun) 2-2-82

7" cem 4626'-5847', perf's @ int 5124'-5777'
OK to plug from 5777' to 5620'. Will send
report on proposed operations immediately.

M. G. MEFFERD
State Oil and Gas Supervisor

By R. A. YBARRA
Deputy Supervisor
Operator: Sun Oil Company
Well designation: NW 8-7
Sec. 13, T. 4S, R. 13W, SB B&M.
Field: Long Beach, County: L.A., was tested for water shutoff on 9-21-81. (Name) R. Manuel, representative of the supervisor, was present from 11:45 to 12:15. Also present were Don Rodgers - D.E.
Casing record of well: 20' cem 50'; 15' cem 1122'; 7 5/8' cem 4715', perf 4693' w/b.
TD 4706' (drilling).

The operations were performed for the purpose of (D-1) 9 5/8' @ 4693'.

☐ The 9 5/8' shutoff at 4693' is approved.
☐ The seal between the ___________'' and ___________'' casings is approved.
☐ The operations are approved as indicating that all of the injection fluid is confined to the formations below ___________'' at this time.

Hole size: 12 1/4'' fr. 1122' to 4725'; 8 7/8'' to 4706'; 6'' to ___________''

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<tbody>
<tr>
<td>9 5/8' 36</td>
<td>4 4715'</td>
<td>9-21-81</td>
<td>Surf 4487'</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

Depth or interval tested 4 - 3/4'' holes @ 4693'.
The hole was open to 4706' for test.

FORMATION TEST:
Packer(s) 4641 & Tail 4669 Bean size 3/4'' Cushion φ
IHP 2200; IPF 57; FFP 57; FHP 2190
Blow light throughout Test
Open for test 4 1/2 Hr. 8 min. Fluid entry 30' mud

BAILING TEST:
The hole fluid was bailed to ___________'' at ___________'' on 19.
The hole fluid was found at ___________'' at ___________'' on 19. (time)

PRODUCTION TEST:
Gauge/meter reading ___________'' on ___________'' at ___________'' pump depth ___________'' Engr.
Gauge/meter reading ___________'' on ___________'' at ___________'' Engr.
Fluid level ___________'' surveyed on ___________'' reviewed (witnessed) by ___________''
Total fluid produced, Bbls. ___________'' Net oil ___________'' Water ___________''
Rate: ___________'' B/D oil, ___________'' B/D water, ___________'' water cut

INJECTION SURVEY:
RA/Spinner/Temperature survey run at ___________' B/D & ___________ psi on ___________'' fluid confined below ___________'' (Packer depth ___________'')
DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

None

CONTRACTOR

Atlantic Oil Co.
<table>
<thead>
<tr>
<th>MEAS.</th>
<th>DRIFT DEPTH</th>
<th>DRIFT ANGLE</th>
<th>VERTICAL DEPTH</th>
<th>VERTICAL SUB-SEA</th>
<th>TOTAL COORDINATES</th>
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<tbody>
<tr>
<td>125</td>
<td>0015</td>
<td>N64 00E</td>
<td>125.0</td>
<td>-69.0</td>
<td>1 N</td>
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<tr>
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<td>2404</td>
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<td>DRIFT ANGLE</td>
<td>VERTICAL DEPTH</td>
<td>VERTICAL SUB-SEA</td>
<td>TOTAL COORDINATES</td>
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<td>3863</td>
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<td>4467.5</td>
<td>-4411.5</td>
<td>471.1 N</td>
<td>95.3 W</td>
</tr>
</tbody>
</table>

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD
4518' M.D.
471.1' NORTH
95.3' WEST

DECL. 14°30'

CLOSURE 480.6, N10°26' W

-3955'
-3495'
-3022'
-2571'
-1989'
1549'

1" = 100'

N.W.L. B.U. WELL No. 8-7
L. B. Carroll, Jr., Agent  
SUN OIL COMPANY  
P. O. Box 55060  
Valencia, CA 91355

Long Beach  
Calif.

October 21, 1981

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S R. 13W, S.E. B & M. Long Beach Field, in Los Angeles County, were witnessed on 8-30-81. W. E. Brannon, Engineer, representative of the supervisor, was present from 0300 to 0700. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 50', 13-3/8" cem 1122', TD 1122' (Drilling).

The operations were performed for the purpose of Testing the blowout prevention equipment and installation.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED

NONE

DEFICIENCIES CORRECTED
1. Elbows on choke and kill lines.
2. Pipe safety valve was defective.
3. Driller did not know how to close upper kelley cock.
4. No tool available to close upper kelly cock.
5. Accumulator took too long to pressure up.
6. Leak in choke line.
7. No "P" report at drill site.

CONTRACTOR: Atlantic Oil Company

WEB: dh

cc: Update

M. G. MEFFERD  
State Oil and Gas Supervisor

By  
Deputy Supervisor  
R. A. YBARRA
**DIVISION OF OIL AND GAS**

**BLOWOUT PREVENTION EQUIPMENT MEMO**

**Sun Oil Company**

**Well** NW 1/4 NW 1/4 8-7

**Field** Long Beach

**County** Los Angeles

**VISITS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Engineer</th>
<th>Time</th>
<th>Operator's Rep.</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>1st 8-30-81</td>
<td>W.E. Brown</td>
<td>0300 to 0700</td>
<td>D. Rodgers</td>
<td>DF</td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
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</table>

**Casing record of well:** 70" Cem 50' / 133/8" Cem 1122 TD 1122 (drilling)

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation.

**DECISION:** The blowout prevention equipment and installation are approved.

**Proposed Well Ops:** Drill

**Hole size:** 24" fr. 0' to 50', 17 1/2" to 1122' 6" to 122'

**REQUIRED BOPE CLASS:** III B 3M

---

**CASING RECORD (BOPE ANCHOR STRING ONLY)**

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at CP at</th>
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<tr>
<td>13 3/8</td>
<td>54 k</td>
<td>K-55</td>
<td>1122</td>
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**Cement Details**

- **Cement Annulus**
- 1076

---

**BOP STACK**

<table>
<thead>
<tr>
<th>API Symb.</th>
<th>Ram Siz.</th>
<th>Mfr. or Type</th>
<th>Size</th>
<th>Press Rtg.</th>
<th>Date Last Overhaul</th>
<th>a</th>
<th>b</th>
<th>a/b</th>
<th>Test Date</th>
<th>Test Press</th>
<th>Test Data</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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---

**ACTUATING SYSTEM**

- **Accum. Unit(s)**: Wkg. Press. / 1500 psi
- **Total Rated Pump Output**: gpm
- **Distance From Well Bore**: 25 ft.

<table>
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<tr>
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<th></th>
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<tbody>
<tr>
<td>1</td>
<td>40 gal.</td>
<td>60 psi</td>
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<tr>
<td>2</td>
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**CONTROL STATIONS**

- **Elect. Hyd.**
- **Manif. at accum. unit**
- **Remote at Drlr's stn.**

**Other:**

**EMERG. BACKUP SYST.**

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<tbody>
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<td>N2 Cyl</td>
<td>No. 1 &amp; 3</td>
<td>3200 psi</td>
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<tr>
<td>Other:</td>
<td>22 300 psi</td>
<td>32 400 psi</td>
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**AUXILIARY EQUIPMENT**

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<th>Weld Flan. Thrd.</th>
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<td>3000</td>
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<tr>
<td>Kill Line</td>
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<td>3000</td>
<td>X</td>
</tr>
<tr>
<td>Control Valve(s)</td>
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<td>3000</td>
<td>X</td>
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<tr>
<td>Check Valve(s)</td>
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<td>Choke Line</td>
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<td>X</td>
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<td>3000</td>
<td>X</td>
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<tr>
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<td>X</td>
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<tr>
<td>Adjustable Choke(s)</td>
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<td>X</td>
</tr>
<tr>
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<td>X</td>
</tr>
<tr>
<td>Upper Kelly Cock</td>
<td></td>
<td>2&quot;</td>
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</tr>
<tr>
<td>Lower Kelly Cock</td>
<td></td>
<td>2&quot;</td>
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<tr>
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<td>2&quot;</td>
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<tr>
<td>Internal Preventer</td>
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<td>4 1/2&quot;</td>
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**HOLE FLUID MONITORING EQUIPMENT**

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<td>Aud./ Vis. A</td>
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<tr>
<td>Pit Level Indicator</td>
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<tr>
<td>Pump Stroke Counter</td>
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</tr>
<tr>
<td>Pit Level Recorder</td>
<td></td>
</tr>
<tr>
<td>Flow Sensor</td>
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<tr>
<td>Mud Totalizer</td>
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<tr>
<td>Calibrated Trip Tank</td>
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</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
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**Remarks:**

**Hole Fluid Type:** Clay base mud

**Weight:** 720#

**Storage Pits:** 720#
DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

1. Elbows on choke and kill lines
2. Pipe safety valve was defective
3. Driller did not know how to close upper Kelley Cock
4. No tool available to close upper Kelley Cock
5. Accumulator took too long to pressure up
6. Leak in choke line
7. No "P" report at drill site

CONTRACTOR

Atlantic Oil Co.
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 28, 1981

Your proposal to drill well MWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S. B. B. & M. Marine & Long Beach field, Northwest Extension area, L. Alamitos, Brown pool, Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

1. Blowout prevention equipment, equivalent to this division's Class 4 III B, 3M requirements or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. All oil, gas or fresh water sands behind the 9-5/8" casing shall be protected by either lifting cement or by multiple stage cementing.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness a test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 10-3/8" casing.
   b. To witness a test of the effectiveness of the 9-5/8" shut-off above the lower Alamitos zone.

HO: dh

cc: Update
    EDP

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By R. A. YBARRA, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION

EXEMPT □
CLASS □
NEG. DEC. 6-4-77 □
E.I.R. □
DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION □
S.C.H. NO. □
S.C.H. NO. □
See Reverse Side

FOR DIVISION USE ONLY

MAP MAP BOOK CARDS BOND FORMS
137 114 121

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-7, API No. 031-025512, Assigned by Division. Sec. 13, T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County.

Legal description of mineral-right lease, consisting of 149 acres, is as follows:

see attached

Do mineral and surface leases coincide? Yes □ No □ X If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 487 feet North section property line and 779 feet West at right angles to said line from the intersection of centerline of San Antonio Drive & Del Mar Avenue

Is this a critical well according to the definition on the reverse side of this form? Yes □ No X

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: 463 feet North and 100 feet West

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing that is +10 feet above ground.

PROPOSED CASING PROGRAM

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(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) Lower Alamitos @ 3946' TVD; Brown @ 4626' TVD; Marine @ 5196' TVD; Pressure = 800 PSI Estimated total depth 5826' TVD

(Name, depth, and expected pressure)

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator
SUN OIL COMPANY (DELAWARE)

Type of Organization (Corporation, Partnership, Individual, etc.)
CORPORATION

Address
P O BOX 55060

City
VALENCIA, CA

Telephone Number
805/257-6200

Name of Person Filing Notice
L. B. Carroll, Jr.

Signature
8/20/81

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

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<th>Lead Agency:</th>
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<tr>
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<td>G. H. Felgemaker</td>
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<tr>
<td>Address:</td>
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<tr>
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<td>Long Beach, CA 90802</td>
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<tr>
<td>Phone:</td>
<td>(805) 590-6894</td>
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**FOR DIVISION USE ONLY**

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**CRITICAL WELL**

As defined in the California Administrative Code, Title 14, Section 1720(a), “Critical well” means a well within:

1. 300 feet of the following:
   1. Any building intended for human occupancy that is not necessary to the operation of the well; or
   2. Any airport runway.
2. 100 feet of the following:
   1. Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   2. Any navigable body of water or watercourse perennially covered by water;
   3. Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   4. Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
NORTHWEST LONG BEACH UNIT
SURFACE RIGHTS

Block 1 (Lease 800388 - W. T. McDonald)
No surface rights

Block 2 (Lease 800389 - Atlantic Richfield)
No surface rights

Block 3 (Unleased - Los Cerritos Park)
No surface rights

Block 4 (Lease 800390 - Amebco)
Sun's surface rights cover only Lot 39 in Block G of Los Cerritos and do not include acreage south of the Westerly prolongation of the Northerly line of Bixby Road.

Block 5 (Leases 800391 and 800392 - Pacific Electric Ry. Co. and Southern Pacific Trans. Co.)
Sun has no surface rights south of the Easterly prolongation of the Southerly line of Wilmington (Baker, 223rd) Street. As to the remainder, Sun's surface rights are limited to those areas shaded in red on the attached Exhibit "A".

Block 5 (Lease 800390 - Amebco)
Sun has surface rights over this entire Block save for that portion thereof quitclaimed to the State of California on August 11, 1961 for the construction of the San Diego Freeway.

Block 7 (Lease 800392 - Southern Pacific)
No surface rights

Block 8 (Lease 800393 - Oil Operators)
Sun has surface rights over the entire Block save for that portion thereof quitclaimed to the State of California on April 17, 1958 for the construction of the San Diego Freeway.

Block 9 (Lease 800394 - Los Angeles County Flood Control District)
Sun has surface rights over all of this Block save for a five-acre strip on the Southwest portion thereof which was quitclaimed to the Flood Control District on June 29, 1962 and is presently occupied by the Long Beach and San Diego Freeways and their access roads. Paragraph 2 of this lease does provide that Lessee's operations shall neither be so located nor so conducted as to interfere with the Flood Control Channel and further provides that no structures shall be placed between or upon the tops of the channel levees without the approval of Lessor's Chief Engineer.

Block 10 (Lease 800392 - Southern Pacific)
No surface rights.
EXHIBIT A
DESCRIPTION OF LEASES

BLOCK 1 - 15.06 Acres

Oil and Gas Lease dated March 1, 1977, by and between W. T. McDonald, as Lessor, and General Exploration Company, as Lessee, covering the following described lands:

All of Tract No. 9117 shown on map recorded in Book 181, Page 47 of the Map Records of Los Angeles County, California, and all of Lot 40 and that portion of Lot 41 in Block "G" of Los Cerritos, as shown on map recorded in Book 12, Pages 198 and 199 of Map Records of Los Angeles County, California, described as follows:

All that portion of said Lot 41 lying Southerly of a line which is the prolongation Easterly of the center line of Wilmington Street Extension, now known as 223rd Street, as said street is shown on map of the aforesaid Tract No. 9117.

BLOCK 2 - 7.94 Acres

Oil and Gas Lease by and between Atlantic Richfield Company, as Lessor, and General Exploration Company, as Lessee, dated March 9, 1977, covering the following described lands:

Lots 42, 44, 45, 46, 47 and that portion of Lot 41, all in Block "G" of Los Cerritos, in the City of Long Beach, County of Los Angeles, State of California, as per map recorded in Book 12, Pages 198 and 199, Records of Los Angeles County, in the office of the County Recorder of said County, included within the following described premises:

Beginning at the point of intersection of the center line of Wilmington Street Extension with the Northeasterly line of the right-of-way of the Pacific Electric Railway Company, as shown on map of Los Cerritos, recorded in Map Book 12, Pages 198 and 199, Records of Los Angeles County, thence East along the prolongation East of said center line of Wilmington Street Extension to its intersection with the Southwesterly line of Lincoln Avenue, as shown on map of Los Cerritos; thence Northerly along the Southwesterly line of said Lincoln Avenue to the North-easterly line of Lot 42 in Block "G", as shown on said map of Los Cerritos; thence Southwesterly along the Northeasterly line of said Lot 42 in Block "G"; and its prolongation Southwesterly to its inter-section with the Northeasterly line of said right-of-way of the Pacific Electric Railway Company; thence in a Southeasterly direction along the Northeasterly line of said right-of-way to the point of begin-ning.
That portion of Rancho Los Cerritos as shown as Los Cerritos Park on that certain map of Los Cerritos filed for record in Book 12, Pages 198 and 199, Map Records of the County of Los Angeles, State of California, being more particularly described as follows:

Beginning at the point of intersection of the Westerly line of Country Club Drive, formerly known as Lincoln Avenue, with the Northwesterly boundary line of Tract 30977; being also the Northwesterly line of Lot 42 of Block "G" of Los Cerritos, as shown on map thereof in Book 12, Pages 198 and 199, Map Records of Los Angeles County, State of California; thence South 60° 51' 30" West 373.64 feet to the Easterly Boundary line of the right-of-way of the Pacific Electric Railway Company, as shown on the map of Tract 1400, filed for record in Book 18, Page 96 of the Map Records of said county; thence along the Easterly line of said right-of-way North 29° 08' 30" West to its intersection with the Westerly prolongation of the Southeasterly line of Lot 43 of Block "G" of Los Cerritos, as shown on map thereof in Book 12, Page 198 at said corner, Map Records of said County; thence on and along said Westerly prolongation, and the Southeasterly line of said Lot 43 of Block "G" of Los Cerritos to its intersection with the Westerly line of Country Club Drive; thence on and along the Westerly line of Country Club Drive to the point of beginning.

Oil and Gas Lease dated May 24, 1934, Recorded in Book 13539, Page 1 of the Official Records of Los Angeles County, California, from Amelia M. E. Bixby Company, as Lessor, to C. G. Willis, as Lessee, insofar as said lease covers the following described lands:

All of Lot 43 in Block "G" of Los Cerritos, as shown on map recorded in Book 12, Pages 198 and 199 of the Map Records of the County of Los Angeles, State of California, and those portions of the Rancho Los Cerritos in the City of Long Beach, Los Angeles County, California described as follows:

Beginning at the intersection of the Northwesterly line of Bixby Road with the Easterly line of the 120 foot right-of-way of the Pacific Electric Railway Company, as shown on a map of Los Cerritos recorded in Book 12, Pages 198 and 199, Map Records of Los Angeles County, California; thence along the Easterly line of said right-of-way North 29° 08' 30" West 85.31 feet to its intersection with the Southeasterly line of San Antonio Drive, as shown on a map of Tract 2612, recorded in Book 27, Page 28 of said map records; thence along said
San Antonio Drive North 60° 46' East 648.15 feet to its intersection with the Westerly line of Magnolia Avenue (formerly Lincoln Avenue), as shown on map of said Los Cerritos; thence along said Avenue South 5° 34' East 391.34 feet to the intersection of the Westerly line of said Magnolia Avenue with the Northerly line of said Bixby Road; thence Westerly along said road 562.11 feet to the point of beginning.

Excepting from the above described parcel of land that portion described as follows:

Beginning at the intersection of the Northerly line of Bixby Road with the Westerly line of Magnolia Avenue (formerly Lincoln Avenue), as shown on the map of Los Cerritos recorded in Book 12, Pages 198 and 199 of said Map Records; thence along the Westerly line of said Magnolia Avenue North 5° 34' West 193.26 feet; thence Westerly parallel with said Bixby Road 155 feet; thence South 5° 34' East 193.26 feet to a point in the Northerly line of said Bixby Road; thence Easterly along said Northerly line 155 feet to the point of beginning.

BLOCK 5 - 9.20 Acres

Oil and Gas Lease dated April 30, 1937, by and between Pacific Electric Railway Company, as Lessor, and Cornelius G. Willis, as Lessee, recorded in Book 15573, Page 167 of the Official Records of Los Angeles County, California and Oil and Gas Lease by and between Southern Pacific Transportation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following described lands:

Those certain lands lying, situated and being in the County of Los Angeles, State of California, described as follows:

That portion of the former Pacific Electric Railway Company 120 foot strip of land as conveyed by Deed dated October 29, 1912, by George H. Bixby and wife, to Pacific Electric Railway Company, and recorded November 8, 1913, in Book 5596, Page 175 of Deeds, Los Angeles County Records, extending from the Easterly prolongation of the Southerly line of 223rd Street (formerly Wilmington Street), as shown on map of Tract 1400, recorded in Book 18, Page 96 of Maps in Los Angeles County Records, Northwesterly to the intersection with the Westerly prolongation of the Southerly line of San Antonio Drive, as shown on Tract 2612 recorded in Map Book 27, Page 28, Los Angeles County Records.

BLOCK 6 - 12.69 Acres

Oil and Gas Lease dated May 24, 1934, Recorded in Book 13539, Page 1 of the Official Records of Los Angeles County, California, from Amelia M. E. Bixby Company, as Lessor, to C. G. Willis, as Lessee, insofar as said lease covers the following described lands:
A part of Lot 4, Tract 1400, as shown on Map recorded in Book 18, Page 96 of Maps, Records of the County of Los Angeles, State of California, described as follows:

Beginning at the Southeasterly corner of said Lot 4, thence South 89° 49' West along the Southerly line of said Lot 4, a distance of 571.84 feet to the Southeast corner of that certain property described in Deed to Gregorio Encinas, recorded in Deed Book 7086, Page 273, records of said Los Angeles County; thence North 0° 09' 30" West 535.00 feet along the Easterly line of said property; thence South 89° 49' West, along the Northerly line of said property to the Easterly line of the right-of-way of the Pacific Electric Railway Company, 70.00 feet wide; thence in a Northerly direction along the Easterly line of said right-of-way to its intersection with the Northeasterly line of said Lot 4; thence in a Southeasterly direction along said Northeasterly line of Lot 4 to the point of beginning.

BLOCK 7 - 2.68 Acres

Oil and Gas Lease by and between Southern Pacific Transportation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following described lands:

That certain strip of land described as "SECOND" herinafter, lying between the center line of Wilmington Street and the Southwesterly line of the former Pacific Electric Railway Company's 120 foot right of way, to wit:

Those certain strips of land situated in the County of Los Angeles, being portions of Lots 3, 4 and 7 of Tract No. 1400, as per map recorded on Page 96 in Book 18 of Maps, Records of Los Angeles County and portion of Tract No. 2220 as per map recorded on Page 97 in Book 22 of Maps, Records of said County, said strips of land being described as follows:

FIRST: A strip of land 60 feet in width, being 21.75 feet on the Southwesterly and Westerly side, and 38.25 feet on the Northeasterly and Easterly side of the following described line:

Commencing at a point in the center line of Wardlow Road, distant Easterly thereon 364.71 feet from the Southerly prolongation of the center line of Golden Avenue as shown on Map of Tract No. 2220 recorded on Page 97 in Book 22 of Maps, Records of said County; thence North 33° 54' 10" West, 607.02 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 5729.61 feet; thence Northwesterly along said curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 5729.61 feet; thence Northwesterly along last mentioned curve 30 feet to point of compound curve concave to the Northeast and having a radius of 1909.91 feet; thence
Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 1632.47 feet; thence Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 1146.01 feet; thence Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 955.04 feet; thence Northerly along last mentioned curve, 612.57 feet to a point of compound curve concave to the East and having a radius of 1146.01 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 1432.47 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 1909.91 feet; thence North-easterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 2864.84 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 5729.61 feet; thence Northeasterly along last mentioned curve, 30 feet to the end of said curve; thence Northeasterly, tangent to last mentioned curve, 309.18 feet to a point in the center line of Wilmington Street, distant Westerly along said center line, 79.64 feet from the Northerly prolongation of the center line of Golden Avenue as shown on said map of Tract No. 2220. The side lines of said 60 foot strip of land terminating in the center Line of Wilmington Street on the North, and in the center of Wardlow Road on the South.

SECOND: A strip of land 70 feet in width, being 26.75 feet on the Westerly side and 43.25 feet on the Easterly side of the following described line:

Commencing at above mentioned point in the center line of Wilmington Street, distant Westerly along said center line 79.64 feet from the Northerly prolongation of the center line of Golden Avenue as shown on said map of Tract No. 2220; thence Northeasterly continuing along last mentioned tangent to curve 5729.61 feet radius in the above described 60 foot strip of land, 1221.20 feet to the beginning of a tangent curve concave to the West and having a radius of 1146.01 feet; thence Northerly along last mentioned curve, 452.45 feet to a point in the Southwesterly line of that certain strip of land 120 feet in width conveyed by Geo. H. Bixby, et ux to Pacific Electric Railway Company, by Deed recorded on Page 175 in Book 5596 of Deeds, Los Angeles County Records, said last mentioned point being distant Southwesterly along said Southwesterly line, 360.21 feet from the West line of above mentioned Lot 4 of Tract No. 1400. The Westerly line of said 70 foot strip of land being extended, and the Easterly line thereof shortened to terminate
in the center line of Wilmington Street on the South, and in the Southwesterly line of above mentioned 120 foot strip of land on the North. Excepting from above described strip of land 70 feet in width any portion thereof included within the lines of the 6.49 acre tract conveyed by Amelia M. E. Bixby to Gregorio Encinas by Deed recorded on Page 273 in Book 7086 of Deeds, Los Angeles County Records. Subject to the rights of the public in those portions of above described 60 foot strip and 70 foot strip included within the lines of Wardlow Road, Golden Avenue and Wilmington Street.

The base of bearings for this description is the South line of Powers Street, having a bearing of East, as shown on map of Tract No. 4351, recorded on Pages 94 and 95 in Book 53 of Maps, Los Angeles County Records.

BLOCK 8 - 23.89 Acres

Oil and Gas Lease dated December 1, 1935, from Oil Operators Incorporated, as Lessor, to Union Oil Company of California, as Lessee, Recorded in Book 14010, Page 66, Official Records of Los Angeles County, California, insofar as said lease covers the following described lands:

Those portions of Lots 3 and 4 of Tract 1400, in the County of Los Angeles, State of California, as per map recorded in Book 18, Page 96 of Maps, Records of said County, described as follows:

Beginning at the point of intersection of the Southerly line of said Lot 3 with the Westerly line of the Pacific Electric Railway Company's 70 foot right-of-way, as described in Deed recorded in Book 3991, Page 88, Official Records; thence Westerly along the Southerly line of said Lot 3 to its intersection with the Easterly line of the Los Angeles County Flood Control Channel; thence Northerly along the Easterly line of Flood Control Channel to its intersection with the Southwesterly line of Pacific Electric Railway Company's 120 foot right-of-way, as described in Deed recorded in Book 5596, Page 175 of Deeds; thence South-easterly along aforesaid Southwesterly line of right-of-way to its intersection with the Westerly line of Pacific Electric Railway Company's 70 foot right-of-way, as described in Deed recorded in Book 3991, Page 88, Official Records; thence Southerly and Westerly along aforesaid Westerly line of 70 foot right-of-way to the point of beginning, Excepting from the lands herein-above described that portion of said Lot 4 included within the land described in Deed from Amelia M. E. Bixby to Gregorio Encinas, recorded May 18, 1920 in Book 7086, Page 273 of Deeds of said County.
BLOCK 9 - 67.63 Acres

Oil and Gas Lease dated October 7, 1935, from Los Angeles County Flood Control District, as Lessor, to Cornelius G. Willis, as Lessee, recorded in Book 13784, Page 4, Official Records of Los Angeles County, California, insofar as said lease covers the following described property:

(1) That portion of Lot 3 of said Tract No. 1400, described as follows:

Beginning at a point in the Southerly line of said Lot 3 distant East thereon 30.00 feet from the Southwesterly corner thereof; hence East along the Southerly line of said Lot 3 a distance of 720.00 feet; hence Northerly along a 1° curve concave to the East, 2241.33 feet to the Northeasterly line of said Lot 3; hence Northerly along said Northeasterly line 318.47 feet to the most Northerly corner of said Lot 3; hence along the Northerly line of said Lot 3 the following courses and distances: S 40° 43' 45" W 146.46 feet; S 68° 43' 45" W 321.42 feet; S 47° 28' 45" W 458.04 feet and S 61° 43' 45" W 298.92 feet; hence Southerly in a direct line 1788.59 feet to the point of beginning.

Also that portion of Wilmington Street, a vacated street, as shown on said map that accrues to said portion of Lot 3 by reason of said vacation.

(2) That portion of Lot 5 in Block "F" of the Subdivision of a part of the Rancho San Pedro, known as the Dominguez Colony as shown on Partition Map filed in Case No. 3284 of the Superior Court of the State of California in and for the County of Los Angeles, and on a map recorded in Book 1, Pages 601 and 602, of Miscellaneous Records of said County, described as follows:

Beginning at the intersection of the Northerly line of said Lot 5 with the Westerly line of the strip of land 120 feet wide as conveyed to the Pacific Electric Railway Company by a Deed recorded in Book 1549, Page 61, of Deeds, records of said County; hence West along the Northerly line of said Lot 5 a distance of 698.15 feet; hence S 0° 02' 11" W 1216.28 feet, more or less, to the Northerly line of the aforesaid Lot 3 of Tract No. 1400; hence along the Northerly line of said Lot 3 the following courses and distances: N 61° 43' 45" E 298.92 feet; N 47° 28' 45" E 458.04 feet; N 68° 43' 45" E 321.42 feet and N 40° 43' 45" E 146.46 feet to said Westerly line of said 120 foot strip; hence Northerly along said Westerly line 618.27 feet to the point of beginning.

Also that portion of the South half of Carson Street, a vacated street, as shown on said map which accrues to said portion of Lot 3 by reason of said vacation.

(3) That portion of Lot 6 in Block "E" of said Subdivision of a part of the Rancho San Pedro, known as the Dominguez Colony, described as follows:
Beginning at the intersection of the Southerly line of said Lot 6 with the Westerly line of the strip of land 120 feet wide as conveyed to the Pacific Electric Railway Company by a Deed recorded in Book 1540, Page 218 of Deeds Records of said County; thence Northerly along the Westerly line of said 120 foot strip of land 1376.14 feet to the North line of said Lot 6; thence Westerly along said North-erly line 182.24 feet; thence South 1287.00 feet to a point on the Southerly line of said Lot 6 distant West thereon 664.17 feet from the point of beginning; thence East along said Southerly line 664.17 feet to the point of beginning.

Also that portion of the North half of Carson Street, a vacated street, as shown on said map that accrues to said portion of Lot 6 by reason of said vacation.

Excepting therefrom that portion thereof within the Southern California Edison Com-pany, Ltd., right-of-way as shown on Licensed Surveyor’s Map filed in Book 30, Page 24, of Record of Surveys on file in the office of the Recorder of Los Angeles County.

BLOCK 10 - 5.72 Acres

Oil and Gas Lease by and between Southern Pacific Trans-portation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following de-scribed lands:

That portion of the former Pacific Electric Rail-way Company's 120 foot strip of land as conveyed by Deed dated October 29, 1912, by George H. Bixby and wife to Pacific Electric Railway Company, and recorded November 8, 1913, in Book 5596, Page 175 of Deeds, Los Angeles County Records, 60 feet on either side of the center line of said land and extending northwesterly from the intersection with westerly prolongation of southerly line of San Antonio Drive as shown on Tract No. 2612, recorded in Map Book 27, Page 28, Los Angeles County Records, a distance of 2,000 feet along the center line of said strip of land.
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<td>95.3 W</td>
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CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD

UNITED DIRECTIONAL SERVICES, INC.
SIGNAL HILL, CALIFORNIA
Cypress, California
March 27, 2017

Mr Mark Pender
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your report of abandonment of well “Nwlbu” 9-2, A.P.I. No. 037-13525, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 4/21/2014, received 5/6/2014, has been examined in conjunction with records filed in this office. We have determined that the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and filing of well records. The plugging and abandonment of the well is approved.

The determination of this well plugging and abandonment is based on the following information, consistent with California Public Resources Code (PRC), and the California Code of Regulations (CCR):

1. Surface plugging completed on 1/7/2014.
2. Site inspection made and approved on 1/15/2014.

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By

For Daniel J. Dudak, District Deputy

EPM:epm

cc: Long Beach Dept. of Gas & Oil
# CHECK LIST – RECORDS RECEIVED AND WELL STATUS

**Company:** Weststates Petroleum Corp.  
**API #:** 037-22512  
**County:** Los Angeles

**Well:** "NWLBU 8-7"  
**Sec:** 13, T. 4S, R.13W.  
**S. B. B. & M. Field:** Long Beach

## RECORDS RECEIVED

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<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Status</th>
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<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>1/8/2014</td>
<td>Producing</td>
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<tr>
<td>History (Form OG103)</td>
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<td>Abandoned</td>
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<tr>
<td>Core Record (Form OG101)</td>
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<td>Reabandoned</td>
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<tr>
<td>Directional Survey</td>
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<td>Sidewall Samples</td>
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<td>Date final records received</td>
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<td>Electric Logs</td>
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<tr>
<td>Other:</td>
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</table>

## WELL TYPE

- Oil
- Gas
- Water Source
- Observation
- Exploratory
- Dry Hole
- Waterflood
- Water Disposal
- Cyclic Steam
- Steam Flood
- Fire Flood
- Other

**EFFECTIVE DATE:** 12/27/13

**REMARKS:** Abandoned

## ENGINEERS CHECK LIST

- Summary, History & Core Record (Dupl.)
- Electric Log
- Operator's Name
- Signature
- Well Designation
- Location
- Elevation
- Notices
- "T" Reports
- Casing Record
- Plugs
- Directional Survey
- Production/Injection (FAP Codes: 4/12-03-)
- E Well on Prod., enter EDP
- Surface Inspection Required
- Surface inspection Waived (Island)
- Well site restoration deferred (common cellar)
- Final Letter Required

## CLERICAL CHECK LIST

- Location change
- Elevation change
- Form OGD121
- Form OGD150b (Release of Bond)
- Duplicate logs to archives
- Notice of Records Due
- EDP 5-2-14
- District Date Base
- Final Letter (OG159) 5-2-14
- Update Center 5-2-14

## FIELD CHECK LIST

- Date Surface Inspection Completed: 12/18/2013
- Other:

## RECORDS NOT APPROVED

- (Reason:)
- (Signature:)

## RECORDS APPROVED

- RELEASE BOND
- Date Eligible
- (Use date last needed records received.)
- MAP AND MAP BOOK

OGD2 5/16/01 CYPRESS
Mr Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave #804  
Los Angeles, CA 90049

Cypress, California  
January 29, 2014

Your operations at well "Nwlbu" 8-7, A.P.I. No. 037-22512, Sec. 13, T. 04S, R. 13W, SB B&M, Long Beach field, in Los Angeles County, were witnessed on 12/24/2013, by Cary Wicker, a representative of the supervisor.

The operations were performed for the purpose of re-abandonment.

DECISION: APPROVED

NOTE: The required Class II3M blowout prevention equipment was inspected and approved on 11/20/2013.

DEFICIENCIES NOTED AND CORRECTED: None

BI/kj

cc: Update  
AllenCo

Tim Kustic  
State Oil and Gas Supervisor

By  
Daniel J. Dudák, District Deputy

OG109 (Rev. 10/2011)
Cementing/Plugging Memo

Operator: C.R.G. Properties, LTD
Well No.: "Nwibu" 8-7
API No.: 037-22512
Sec.: 13
T.: 04S
R.: 13W
SB: B&M
Field: Long Beach
County: Los Angeles
On: 12-24-2013
Mr./Ms.: Cary Wicker

There were also present: Mick Beyer (Allenco)

Casing record of well: 13 3/8" cem 1122', 9 5/8" cem 4715', CP 100', 210', and 2440'; 7" id 4626'-5847'. TD 5850'. Plugged w/ cem 5425' - 3522', 3058' - 2852', 2440' - 2136', 214' - 6'.

The operations were performed for the purpose of: 3 (Re-abandon)

☐ The plugging/cementing operations as witnessed and reported are approved.
☐ The location and hardness of the cement plug @ __________________ are approved.

Hole size: 17 1/2" fr. 50' to 1122', 12 1/4" to 4715' & 11" to 5850'

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed</th>
<th>Final</th>
<th>Perforations</th>
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<tbody>
<tr>
<td></td>
<td>Size</td>
<td>Wt. Top Bottom</td>
<td>Date MO-Depth</td>
<td>Volume</td>
<td>Annulus Casing</td>
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<tr>
<td>9 5/8&quot;</td>
<td>36# 0'</td>
<td>4715' 12/3/2013 tbg@2440'</td>
<td>180 cf</td>
<td>2218'± 2136'</td>
<td>71 cf 1600 psi</td>
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<tr>
<td>9 5/8&quot;</td>
<td>36# 0'</td>
<td>4715' 12/6/2013 tbg@214'</td>
<td>234 cf</td>
<td>6' 6</td>
<td>143 cf 600 psi 100'-110', 210'</td>
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</table>

Casing/tubing recovered: Shot/cut at __________, __________, __________, __________, Pulled fr. __________;

Shot/cut at __________, __________, __________, __________, Pulled fr. __________;

Shot/cut at __________, __________, __________, __________, Pulled fr. __________;

Junk (in hole):

Hole fluid (bailed to) at __________ Witnessed by __________

*mud interval displaced upward 70'± by subsequent cement plug

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<th>Poured</th>
<th>Fill</th>
<th>Engineer</th>
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<td>72 / 25 #</td>
<td>12/2/2013</td>
<td>32</td>
<td>3580*</td>
<td>3069*</td>
<td>P. Kaufman</td>
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<td>72/27</td>
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<td>31</td>
<td>2852'</td>
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<td>72/35</td>
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<td>146</td>
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Note: 12 II3M – ZA 11/20/13

C/O @ 5425'; 11-26-2014; M. Chavez (w/ B. Irick approval).

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<th>Top Witnessed</th>
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<td>MO &amp; Depth</td>
<td>Time</td>
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<td>346 CF</td>
<td>Tbg@5425'</td>
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<td>12/2/2013**</td>
<td>25 cf</td>
<td>tbg @ 3580'</td>
<td>1100</td>
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<td>78 cf</td>
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<td>12/6/2013</td>
<td>234 cf</td>
<td>tbg @ 214'</td>
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** press test 9” csg 12/2/13 0820-0835, 690-660 psi

OGD10 (9/07) Printed on recycled paper.
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD
Well "NWBLU" B-7
A.P.I. No. 937-22512
Date 12-15-13
Field Long Beach
Name Mick Beyer
(Team Operations Manager)
County Los Angeles
Sec. 13
T. 04S
R. 13w
sbb & M.
(Person submitting report)
(Signature)
Address 2109 Gundry Ave. Signal Hill, Ca. 90755
Telephone Number 562 999-6100

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

11-20-13 M.I.R.U. - Installed and tested BOPE—Witnessed by Z. Amilshin in w/DOGGR - Secured Well
11-21-13 R.I.H. W/5 ½" Scraper on 2 7/8" tbg. tagged down at 4110' - Circ.with water w/returns of oily water and gas - Witnessed by Z. Amilshin in w/ DOGGR - P.O.H. - Secured well
11-22-13 R.I. H. W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper - P.O.H. - Secured well
11-25-13 R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean - P.O.H. Witnessed by T. Tyler w/ DOGGR - Secured well
11-26-13 R.I.H. W/ 5 ½" scraper on 2 7/8" tbg. Stopped at 4250' unable to work deeper - P.O.H. - R.I.H. W/Tbg. To 5425' Mixed and pumped 346 cu/ft. (304 sxs) class G cement in 5 stages - All witnessed by M. Chavez w/ DOGGR - Secured well
12-03-13 R.I.H. Tagged cement at 2850' - Pump 30 bbls. 73# mud - Prs. Tested csg. At 1000 psi good - P.O.H. - Shot perforations from 2450' to 2440' - P.O.H. - R.I.H. w/ Tbg. Tail at 1914' mixed and pumped 183 cu/ft. (161 sxs) class G cement squeezed away 54 cu/ft. (47 sxs) unable to squeeze any more (s.i. prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - Secured well
12-05-13 TO Attempted to pull casing at 80k unable to pull free - R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100' - R.I.H. W/Tbg. Tail at 210' mixed and pumped 140 cu/ft. (123 sxs) class G cement - cement to surface - P.O.H. - Installed wellhead flange and mixed and pumped 95 cu/ft. (83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/ DOGGR - R.D.M.O.
12-06-13 Dug down around well and cut casing below surface - C. Wicker w/ DOGGR witnessed surface tag and welding of I.D. Plate - Backfilled well location - Job complete.

DOGGR
Received -
JAN-8 2014

SUBMIT IN DUPLICATE
HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD Field Long Beach County Los Angeles
Well "NWLBU" 8-7 Sec. 13 T. 04S R. 13w sbB.8M.
A.P.I. No. 037-22512 Name Mick Bayer Title Operations Manager
(Person submitting report) (Person, Secretary, or Agent)
Date 12-15-13 Signature
(Month, day, year)
Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

11-20-13 M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amilhussin w/DOGGR - Secured Well

11-21-13 R.I.H. W/5 ½" Scraper on 2 7/8" bg. tagged down at 4110' - Circ.with water w/returns of oily water and gas – Witnessed by Z. Amilhussin w/ DOGGR – P.O.H. - Secured well

11-22-13 R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H. – Secured

11-25-13 to 11-26-13 R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.


12-03-13 R.I.H. Tagged cement at 2850’ – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450’ to 2440’ – P.O.H. - R.I.H.w/ Tbg. Tail at 1914’ mixed and pumped 183 cu/ft. (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Mortan w/ DOGGR - Secured well


12-05-13 TO 12-06-13 Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95’ to surface - Shot perforation from 110’ to 100’ – R.I.H. W/Tbg. Tail at 210’ mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H. - installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.

12-24-13 Dug down around well and cut casing ’ below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D. Plate - Backfilled well location - Job complete.
For cementing in well NWLBU 8-7 per the program contained in the Corrected Permit of July 22, 2013:

The bottom plug was to be above the 7” liner. Top of liner @ 4626’. Bottom plug was to be from 3831’-4626’ within a 9 5/8” 36# casing.

4626’-3831’ = 795’ linear
9 5/8” 36# casing conversion factor: 0.4340 cf/lf
795lf x 0.4340cf/lf = 345cf

346cf was pumped on 11/27/2013.
25cf was pumped on top of 3580’ tag on 12/02/2013.

HOWEVER

Tubing tail was at 5423’.
5423’-4626’ (TOL) = 797’ in 7” casing
7” 26# casing conversion factor: 0.2148 cf/lf
797lf x 0.2148 cf/lf = 171cf in 7” casing

346cf-171cf = 175cf in 9 5/8” casing
9 5/8” 36# casing conversion factor: 2.3038 lf/cf
175cf x 2.3038 lf/cf = 403lf
4626’-403’ = 4223’

4223’ SHOULD have been the tag after pumping of 346cf.
4223’ - 3580’ (actual tag) = 643’
643lf x 0.4340cf/lf = 279cf (where is this from?)

OLD PLUG FROM 4242’-4423’ IN 9 5/8” CASING
4243’-4242’ = 181’
181lf x 0.4340 cf/lf = 78cf (78.5cf) volume of plug

4 1/8” drill bit used to drill through plug.
4 1/8” hole conversion: 0.0928cf/lf or 10.7752 lf/cf
181lf x 0.0928 cf/lf = 17cf (16.8cf) volume of hole drilled through plug
78cf-17cf = 61cf cement left in hole from plug.

279cf-61cf = 218cf (fill/cement ?) unaccounted for in casing.
HAM
Well Class – Oil
12/05/2013

9-5/8", 36#
13-3/8"; 54.5#

ETOC 884'

Hole: 12-1/4'

BFW-2280'

U gas zone @ 2500

Wilbur zone@ 3120'

Alamitos @ 4038'

4715'

4626'

7"; 26# liner; Hole: 11"

Brown zone@ 5724'

5847'

TD -5850'

Perforation
Casing
WSO Hole
Bridge Plug
Cement
Fisher
DV Collar
Retainer

perf: 5724-5777, 4356-4412, 4038-40119
BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: C.R.G. Properties, LTD
Well: "Nwibu" 8-7
Field: Long Beach
County: L.A.
Spud Date: (date)

VISITS:
1st: 11/20/13
Engineer: Z. Amilhussin
Time: (1630 to 1700)
Operator's Rep: (name)
Contractor: Allenco
Rig #: 2 Contractor's Rep & Title: I. Sandoval, Rig Manager
Casing record of well: "memo"

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ❌ N □
DECISION: The blowout prevention equipment and its installation on the "9" casing are approved.

Proposed Well Ops: 1.
MACP: __________ psi
Hole size: __________ to __________ " to 

REQUIRED BOPE CLASS: _______M

CASING RECORD OF BOPE ANCHOR STRING

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
<th>Cement Details</th>
<th>Top of Cement</th>
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</table>

BOP STACK

<table>
<thead>
<tr>
<th>API Symb</th>
<th>Ram Size (in.)</th>
<th>Manufacturer</th>
<th>Model or Type</th>
<th>Vert. Bore Size (in.)</th>
<th>Press. Rtg</th>
<th>Date Last Overhaul</th>
<th>Gal. to Close</th>
<th>Recov. Time (Min.)</th>
<th>Calc. GPM Output</th>
<th>psi Drop to Close</th>
<th>Secs. to Close</th>
<th>Test Date</th>
<th>Test Press.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rd</td>
<td>7 7/8</td>
<td>Townsend</td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
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</tbody>
</table>

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure: __________ psi
Total Rated Pump Output: __________ gpm
Distance from Well Bore: __________ ft.
Accum. Manufacturer: 1
gal. __________
psi __________
Precharge: __________ x
Fill-up Line: __________ Kill Line: __________ Control Valve(s): __________
Check Valve(s): __________ Aux. Pump Cnct.: __________
Choke Line: __________ Control Valve(s): __________

CONTROL STATIONS

Manifold at accumulator unit: __________
Remote at Driller's station: __________
Other: hand pump: x

EMERG. BACKUP SYSTEM

N2 Cylinders: 1
L = 55 "
2,750 psi
10 gal.
Other: 2
L = "
gal. __________
Bleed Line: __________
Upper Kelly Cock: __________
Lower Kelly Cock: __________
Standpipe Valve: __________
Standpipe Pres. Gau.: __________
Pipe Safety Valve: __________ 2.88 3M
Internal Preventer: __________

HOLE FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Alarm Type</th>
<th>Class</th>
<th>Hole Fluid Type</th>
<th>Weight</th>
<th>Storage Pits (Type &amp; Size)</th>
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<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
<td>lease water</td>
<td>50 bbl pump, 250 bbl spare</td>
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</tr>
<tr>
<td>Pit Level Indicator</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pump Stroke Counter</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pit Level Recorder</td>
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<tr>
<td>Flow Sensor</td>
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<tr>
<td>Mud Totalizer</td>
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</tr>
<tr>
<td>Calibrated Trip Tank</td>
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<tr>
<td>Other</td>
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<td></td>
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</tbody>
</table>

REMARKS AND DEFICIENCIES:

OGD 9 (9/06)
CONTRACTOR: Allenco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND TO BE CORRECTED:

DEFICIENCIES NOTED AND CORRECTED:

none
Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to (Re) Abandon well "Nw1bu" 8-7, A.P.I. No. 037-22512, Section 13, T. 04S, R. 13W, SB B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 7/10/2013, received 7/10/2013 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, as defined by this Division’s publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class II3M, with hydraulic controls, during abandonment operations.
   b. A 3M lubricator for wire line operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. The well is cleaned out to 4626'.
4. The well is plugged with cement from 4626' to 3831'.
5. The proposed cement plug from 2600' to 2180' shall extend from 2500' to at least 2200'.
6. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu. ft and a minimum gel shear strength of 25 lbs./100 sq. ft.
7. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the 9-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
8. All casing must be removed from between 5' and 10' below ground level.
9. Well site restoration shall be completed within 60 days following the completion of plugging operations.
10. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
11. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
12. No program changes are made without prior Division approval.

(Continue on page 2)

Tim Kustic
State Oil and Gas Supervisor

By

Daniel J. Dudak, District Deputy
13. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
   b. Witness the clean-out depth at **4426'**.
   c. Witness the placing, location and hardness of the cement plug from **4626'** to **3831'**.
   d. Witness the mudding operations.
   e. Witness the placing, location and hardness of the cement plug from **3120'** to **2620'**.
   f. Witness the placing, location and hardness of the cement plug from **2500'** to **2200'**.
   g. Witness the cement squeeze through the **perforations** at **200'** or through a retainer or packer (if casing integrity is not demonstrated).
   h. Witness the placing, location and hardness of the cement plug from **210'** to **0'**.
   i. Inspect the restored well site.

**NOTE:**
1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H₂S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
   a. **Base of the Freshwater Sand 2230'**
   b. **Top of the Upper Gas Zone 2500'**
   c. **Top of the Wilbur Zone 3120'**
   d. **Top of the Alamitos Zone 4038'**
   e. **Top of the Brown Zone 5724'**
   
   Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
Mr. Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to (Re) Abandon well "Nwlbu" 8-7, A.P.I. No. 037-22512, Section 13, T. 04S, R. 13W, SB B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 7/10/2013, received 7/10/2013 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class II3M, with hydraulic controls, during abandonment operations.
   b. A 3M lubricator for wire line operations.

2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.

3. A diligent effort shall be made to clean out to 4242'.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft and a minimum gel shear strength of 25 lbs./100 sq. ft.

5. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the 9-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.

6. The proposed cement plug from 3120' to 2920' shall extend from 3130' to at least 2930'.

7. All casing must be removed from between 5' and 10' below ground level.

8. Well site restoration shall be completed within 60 days following the completion of plugging operations.

9. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.

10. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.

11. No program changes are made without prior Division approval.
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

(Continue on page 2)

No Bond Required Bond

cc: Update
    EDP
    AlienCo.
    DOGGR – Dist. 1 (Cypress)

Engineer: Ellen Moser
Office: (714) 816-6847

By: [Signature]
For: Daniel J. Dudak, District Deputy

Tim Kustic
State Oil and Gas Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)
b. Witness the clean-out depth at 4242'.
c. Witness the placing, location and hardness of the cement plug from 3130' to 2930'.
d. Witness the mudding operations.
e. Witness the placing, location and hardness of the cement plug from 2600' to 2180'.
f. Witness the cement squeeze through the perforations at 200' or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 210' to 0'.
h. Inspect the restored well site.

NOTE:
1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H₂S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
   a. **Base of the Freshwater Sand 2280'**
   b. **Top of the Upper Gas Zone 2500'**
   c. **Top of the Wilbur Zone 3120'**
   d. **Top of the Alamitos Zone 3830'**
   e. **Top of the Brown Zone 4380'**

Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☐ / re-abandon ☐ well "Nwibu" 8-7, API No. 037-22512, Sec. 13, T. 4s, R. 13w, S.B., B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

See Attachment.

The total depth is: 5847 feet. The effective depth is: 4243 feet.

Present completion zone(s): see attachment. Present zone pressure: N/A psi.

Oil or gas shows: see attachment __________ feet. Depth to base of fresh water: 2280 __________ feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment __________ feet.

(Depth of interval)

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes ☐ No ☐

The proposed work is as follows: (A complete program is preferred and may be attached.)

See Attachment.

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
C.R.G. Properties, Ltd

Address
2109 GUNDRY AVE.

City/State
SIGNAL HILL

Zip Code
90755

Name of Person Filing Notice
MICK BEYER

Telephone Number:
562 969-6100

Signature

Date
07-10-13

Individual to contact for technical questions:
MICK BEYER

E-Mail Address:
Mbeyer@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.
CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), “Critical well” means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

(2) 100 feet of the following:
   (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

C.R.G. Properties, Ltd.  Well “Nwilbu” 8-7 (037-22512), Sec.13, Twn. 4S, Rge. 13W, S.B. B&M, Long Beach Oil Field

According to Division records, the present condition of the well is as follows:
1. Location: See map Exhibit A - Attachment II
2. Accessibility:
3. Status: Idle deserted
4. Total Depth: 5847' Effective Depth: 4243, Elevation of Kelly Bushing (KB) above sea level: 55.5'.
5. Casing: 13-3/8" cemented at 1122'; 9 5/8" casing cemented at 4715', cemented to 884' behind pipe; 7" casing landed from 4626' to 5847, perf @ int. 5724-5777', perf 4038'-4119 & perf int @ 4356-4412. TD 5847'. Plugged w/ cement 5777'-5583' & 4423'-4242'.
6. Tubing: Unknown  Rods: Unknown
7. Base of Fresh Water (BFW): 2280'
8. Producing Zone(s): Brown
9. Hole Fluid: Unknown
10. Junk: Unknown
11. Plugs: 5777'-5583' & 4423'-4242'.
12. Comments: Top of Brown zone 4380', top of Alamitos zone 3930', top of Wilbur zone 3120', and top of Upper Gas zone 2500'.

The following operations are necessary to plug and abandon the well:

1. A Notice of Intention to Abandon (form OG 108) is to be filed with this Division at least 10 days prior to commencing work. Work is not to begin until a Permit to Conduct Well Operations (Form OG 111) has been issued. All well operations are to be witnessed by a representative of this Division as directed in the Permit to Conduct Well Operations.

2. The abandonment contractor will review job safety programs (JSP) with all crewmembers prior to work startup and/or if conditions change. Monitor well for any leaking gas. Position gas monitors and ventilation fans, if warranted before moving in any other equipment or personnel.

3. Adequate blowout prevention equipment, as defined in Division's publication No. M07, shall be installed and maintained in operating condition at all times. The minimum requirements are:
   a. A 3M rod Reagan or equivalent BOPE for pulling rods and pump operations.
   b. A Class II3M, with hydraulic controls, during abandonment operations.
   c. A 3M lubricator for wire line operations.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft and a minimum gel shear strength of 25 lbs./100 sq. ft. All cement plugs are to have a minimum compressive strength of 1000 psi and maximum liquid permeability of 0.1 md. All depths noted are from the KB.

5. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

7. Remove rod Reagan. Install and function test Class II3M BOPE (function test BOPE each day thereafter).

8. Pull out all production tubing.

9. Use appropriate combination tools to clean out to 4243'.

10. Run in scraper. Scrape the 7" casing.

11. Run in hole with tubing (if tag high, clean out fill to 4243).

12. The well shall be plugged with cement from 4243' to 3730'.

13. The well shall be plugged with cement from 3120' to 2920.

14. The well shall be plugged with cement from 2500' to 2180.

15. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.

16. The 9-5/8" casing shall be perforated from 210 to 200'. Get an injection rate or a breakdown.

17. Sufficient cement shall be squeezed into the perforations to fill to surface.

18. The well shall be plugged with cement from 210' to surface.

19. All casing must be removed from between 5' and 10' below ground level.

20. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top of the outer casing.

21. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

22. Remaining buried pipelines that cannot be removed shall be purged with clean water. Abandon line by pumping approved cement slurry mixture, weld steel cap on both ends of the line and bury.

23. All equipment, casing, or junk that requires removal to implement restoration to lawful conditions shall be removed and properly disposed of in accordance with environmental laws and in accordance with instructions from the Division of Oil and Gas. All liquid wastes shall be removed and properly disposed.

24. A well History (Form OG 103) shall be filed in duplicate with the Division within 60 days of completing the work and must include a description of the removal or abandonment of the well flow line and any associated piping.
DEPARTMENT OF CONSERVATION
Legal Office
801 K Street
Sacramento, California
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 17, 2012
Operator: C.R.G. Properties, Ltd. (C0250)

BY
Tim Kustic
STATE OIL AND GAS SUPERVISOR

ORDER NO. 1032
Order to Plug and Abandon Wells & Restore Lease Conditions
REPORT OF CANCELLATION

Cypress, California
March 29, 2010

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

In accordance with the expiration of Permit to Conduct Well Operations the following change pertaining to your well C.R.G. Properties Ltd/"Nwlbu" 8-7, API No. 037-22512, Long Beach Field, Los Angeles County, Sec. 13, T. 4S, R. 13W, S.B. B. & M., is being made in our records:

Your notice to abandon dated 02/18/2009, and our report No. P 109-0096 issued in answer thereto, is hereby cancelled inasmuch as the work will not be done. If you have an individual bond on file covering this notice, it will be returned. No request for such return is necessary.

Elena M. Miller
State Oil and Gas Supervisor

By
Ellen P. Moser
Associate Engineer

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.
Your proposal to abandon well C.R.G. Properties, Ltd./"Nwlb-8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Northwest Extension area, -- pool, Los Angeles County, dated 2/18/2009, received 2/19/2009 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment with hydraulic controls, equivalent to this Division's Class H3M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from 2600' to 2500', and 2330' to 2230'.
4. All uncedented casing annuli shall be cemented from 30' to 5'.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. THIS DIVISION SHALL BE NOTIFIED TO:
a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
b. Witness the clean-out depth
c. Witness the location and hardness of the cement plug at 2835'.
d. Witness the mudding of the well.
e. Witness the placing, location and hardness of the cement plug from 2600' to 2500'.
f. Witness the placing, location and hardness of the cement plug from 2330' to 2230'.
g. Witness the placing, location and hardness of the cement plug from 100' to 5'.
h. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:
1. A crew drill may be required at the time of the blowout prevention equipment inspection.
2. The proposed surface plug shall not contain rock or gravel.
3. The base of freshwater sands is at 2270'.
4. This division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

JCH:jch

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.

BLANKET BOND

Engineer: John Huff
Phone: 714/816-6847

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

Detailed instructions can be found at: www.conservation.ca.gov/doc

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon □ / re-abandon □ well NWLBU 8-7, API No. 037-22512

(Designation of check one)
Sec. 13 , T. 4S , R. 13W , SB B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See Attached Program

The total depth is: 5837 feet. The effective depth is: 4243 feet.

Present completion zone(s): Upper Alarnitos. Present zone pressure: 800 psi.

Oil or gas shows: ____________________________ feet. Depth to base of fresh water: 2935 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): 3670 feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes □ No □

The proposed work is as follows: (A complete program is preferred and may be attached.)
See Attached Program

Cancelled 3-29-2010

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
CRG Properties

Address
6191 Point Loma

Name of Person Filing Notice
J.W. Scott

Telephone Number
(714) 290-9190

City/State
Huntington Beach, CA.

Signature

Date
2/18/09

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.
CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

(2) 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.
ABANDONMENT PROGRAM
Well NWLBU (A)

A 8-7

1. MIRU. Install and test class III 3 M BOPE.
2. PU and RIH with 2 7/8'' workstring and cleanout to 4243' (TD). POOH.
3. MU and RIH with cementers. Cement from TD to 2835' to 611 cf of class G cement. PU.
4. RIH and tag for top of cement.
5. Mud well from TOC to surface @ 219 bbls of 72 pcf crude.
6. RIH with tbq and cement 7'' casing and 7'' x 10 3/34'' annulus from 100' to surface with 80 cf of class G cement. RDWO.
7. Cut recover csqs 8' below surface. Weld or plate on largest diameter csq.
8. Remove cellar. Cleanup well site.
TOPS FORM 33101
MADE IN U.S.A.

- WILBO 8-7 (037-22512)
- Directional E1 55.5" (KB)
- Proposed
- Additional Requirements
  - 2100'
  - 2250'
  - 2350'
  - 2400'
  - 2450'

- BFW: 200'
  - Upper Ccw 2500'
  - Upper Rw 3600'
  - Annulus: 4038'
  - BROWN 5724'

- 11" hole
- Parts: 4058, 4119, 4356, 4472 @ int
- perf #4031, 4030, Top perf #4028
- perf #4136, 4130, 1" Ccw 4626'
- perf @ int 5583, 5577

- 9 1/2" rag in 12.76 cft in 12 1/4" annulus

- Left in hole: 1200 cft in 9 1/2" x 12 1/4" annulus

SCH
3/2/2001
# REPORT OF PROPERTY AND WELL TRANSFER

<table>
<thead>
<tr>
<th>Well Name</th>
<th>API Number</th>
<th>Section Township Range</th>
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<tbody>
<tr>
<td>&quot;Nwibu&quot; 5-2</td>
<td>037-00397</td>
<td>Sec. 13-4S-13W</td>
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<td>&quot;Nwibu&quot; 5-3</td>
<td>037-09796</td>
<td>Sec. 13-4S-13W</td>
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<td>037-09797</td>
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<td>Sec. 13-4S-13W</td>
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<td>&quot;Nwibu&quot; 8-4</td>
<td>037-06415</td>
<td>Sec. 13-4S-13W</td>
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<td>037-22512</td>
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<td>Sec. 13-4S-13W</td>
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<td>Sec. 13-4S-13W</td>
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<td>&quot;Nwibu&quot; 9-6</td>
<td>037-00393</td>
<td>Sec. 13-4S-13W</td>
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Description of the land upon which the well (s) is (are) located:

See above

Date of transfer: May 9, 2000

New owner: C.R.G. Properties, Ltd. C0250

Type of organization: Corp./Ltd.

Address: 15332 Antioch Street, Suite 338
          Pacific Palisades, CA 90272

Telephone: (310) 808-9071

Reported by: OG34A received 6/2/2000 signed by both parties

Confirmed by: Same as above

New operator new status: PA

Designation of Agent: Mark Pender

Old operator new status: PA

Remarks: See operator file for C.R.G. Properties, Ltd. for details

**OPERATOR STATUS ABBREVIATIONS**

- **PA** - Producing Active
- **NPA** - No potential, Active
- **PI** - Potential Inactive
- **NPI** - No potential, Inactive
- **Ab** - Abandoned or No More Wells

**FORM AND RECORD CHECK LIST**

<table>
<thead>
<tr>
<th>Form or Record</th>
<th>Initials</th>
<th>Date</th>
<th>Form or Record</th>
<th>Initials</th>
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<td>7/27/2000</td>
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Deputy Supervisor: R. K. Baker

Signature: Floyd M. Leeson

Operations Engineer:
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY CORP.
SEE OGD156 DATED 5-13-94
# REPORT OF PROPERTY AND WELL TRANSFER

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<table>
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<th>Former owner</th>
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<tbody>
<tr>
<td>Sun Exploration &amp; Production Co.</td>
<td>June 15, 1983</td>
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**Name and location of well(s):**
- NWLBU 5-1 (037-09795)
- NWLBU 5-2 (037-00397)
- NWLBU 5-3 (037-09796)
- NWLBU 5-4 (037-09797)
- NWLBU 6-1 (037-09788)
- NWLBU 6-2 (037-09789)
- NWLBU 8-1 (037-09792)
- NWLBU 8-2 (037-09793)
- NWLBU 8-3 (037-06496)
- NWLBU 8-4 (037-06415)
- NWLBU 8-7 (037-22512)
- NWLBU 9-2 (037-13525)
- NWLBU 9-3 (037-09791)
- NWLBU 9-4 (037-00392)
- NWLBU 9-5 (037-00142)
- NWLBU 9-6 (037-00393)

**Description of the land upon which the well(s) is (are) located:**
- Sec. 13-4S-13W S.B.B.&M.

**Date of transfer, sale, assignment, conveyance, or exchange:**
- May 1, 1983

**New owner:**
- Petro Resources, Inc.

**Address:**
- 4200 Easton Drive, Suite 16
- Bakersfield, CA 94309

**Type of organization:**
- Corp.

**Telephone No.:**
- 805/323-4118

**Reported by:**
- Letter from Sun Exploration & Production Co. dated 5-16-83.

**Confirmed by:**

**New operator new status (status abbreviation):**
- PA

**Request designation of agent:**
- Joe D. Rose, same address.

**Old operator new status (status abbreviation):**
- PA

**Remarks:**

---

**OPERATOR STATUS ABBREVIATIONS**

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<td>No Potential, Active</td>
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<tr>
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<td>1-1-83</td>
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<td>Production reports</td>
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</tbody>
</table>
DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: [Redacted]  Well No. M268B26 8-1
API No. 032 22512  Sec. 13, T. 4S, R. 13W, S.B.B&M.
County: [Redacted]  Field: Long Beach

RECORDS RECEIVED          DATE          STATUS          STATUS
Well Summary (Form OGL00)  11/2/12 (2)    Producing - Oil
History (Form OGL03)       11/2/12 (2)    Water Disposal
Core Record (Form OGL01)   5/19/83 (2)    Idle - Oil
Directional Survey         5/19/83 (2)    Water Flood
Sidewall Samples           5/19/83 (2)    Abandoned - Oil
Other                      5/19/83 (2)    Steam Flood
Date final records received 5/14/82        Abandoned - Dry Hole
Electric logs:
  Alphymer (Cluster)       10/21/81 (2)    Drilling - Idle
  Archer Unit (Cluster)   10/21/81 (2)    Fire Flood
  Qualvist 5/19/83 (2)    Abandoned - Dry Hole
  Qualvist 5/19/83 (2)    Air Injection
  Qualvist 5/27/83 (2)    Producing - Gas
  Qualvist 5/27/83 (2)    Gas Injection
  Qualvist 5/27/83 (2)    Idle - Gas
  Qualvist 5/27/83 (2)    CO2 Injection
  Qualvist 5/27/83 (2)    Abandoned - Gas
  Qualvist 5/27/83 (2)    LPG Injection
  Qualvist 5/27/83 (2)    Gas-Open to Oil Zone
  Qualvist 5/27/83 (2)    Water Flood Source
  Qualvist 5/27/83 (2)    DATE
  Qualvist 5/27/83 (2)    RECOMPLETED
  Qualvist 5/27/83 (2)    Remarks

ENGINEER'S CHECK LIST
1. Summary, History, & Core record (dupl.) V
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Flugs
12. Surface Inspection
13. Production

CLERICAL CHECK LIST
1. Location change (F-OGD165)
2. Elevation change (F-OGD165)
3. Form OGD121
4. Form OGL59 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

No. P 182-109

Cont. Dipsimeter 5/27/83 (2)

Hold for 10/23/83

UPDATE CENTER 6/7/83

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)

MAP AND MAP BOOK

OGD2 (12/60/DWRR/5M)

LONG BEACH OFFICE - USE REVERSE SIDE
WELL SUMMARY REPORT

Operator: SUN EXPLORATION AND PRODUCTION COMPANY
Well: NWLBU #8-7
Field: LONG BEACH
County: LOS ANGELES
Location: 487.44' N & 778.80' W OF SAN ANTONIO DRIVE & DEL MAR AVENUE
Elevation: 45.5 feet above sea level

Sec. 13
T. 4S
R. 13W
B&M. SB

Commenced drilling (date): 8/25/81
Completed drilling (date): 5/14/82
Present effective depth: 4243'

GEOLOGICAL MARKERS:
- UPPER ALAMITOS I
  - Depth: 4038'
- LOWER ALAMITOS K
  - Depth: 4367'
- BROWN ZONE V
  - Depth: 5724'

Depth measurements taken from top of:
- Derrick Floor
- Rotary Table
- Kelly Bushing

Formation and age at total depth
- LOWER ALAMITOS

Clean Oil (bbl per day): N/A
Gravity Clean Oil: N/A
Percent Water including emulsion: N/A
Gas (Mcf per day): N/A
Tubing Pressure: N/A
Casing Pressure: N/A

Casing Record (Present Hole):
Size of Casing (API): 13 3/8"
Top of Casing: SURFACE
Depth of Shoe: 1122'
Grade and Type of Casing: K-55, BT&C
New or Second Hand: NEW
Size of Hole Drilled: 17 1/2"
Number of Sacks or Cubic Feet of Cement: 1456 CF POZ Mix "A" & 100 CF CL "G"
Depth of Cementing (if through perforations): 5748'-5753'

Perforated Casing (Size, top, bottom, perforated intervals, size and spacing of perforation and method):
4- 1/2" HPF 4119'-4109': 143 SHOTS W/4-1/2" HPF 4412'-4402'; 4401'-4383': 4-1/2" H @ 4356'
PERF'D 4-1/2" HPF 4412'-4402'; 4401'-4383': WSO 4-3/8' H @ 4031': 4-.43" HPF 5757'-5749', 5748'-5738', 5736.5'-5734.5', 5733'-5723.5'

Was the well directionally drilled? Yes [X] No

Electrical Logs:
- FDC-CNL-GR-CAL-TEN 4902'-3000'
- DLL-GR-TEN 5850'-4713'
- FDC-CNL-GR-CAL-TEN 5850'-4713'
- GAMMA RAY 4500'-4000'
- GAMMA RAY CMT BOND LOG 4200'-3348'

Other surveys:
- DIPMETER

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: L. B. CARROLL, JR.
Address: P O BOX 55060
City: VALENCIA
Telephone Number: 805/257-6200

Date: 10/28/82

Submit in duplicate.
**History of Oil or Gas Well**

**Operator:** Sun Exploration & Production Co.  
**Field or County:** Long Beach  
**Well Name:** Northwest Long Beach Unit #8-7  
**Sec. 13, T. 4S, R. 13W, SB. B. & M.**  
**A.P.I. No.:** 037-22512  
**Name:** L.B. Carroll, Jr.  
**Date:** October 28, 1981  
**Signature:** [Signature]

**Address:** PO Box 55060, Valencia, CA 91355 0560  
**Telephone Number:** (805) 257-6200

**Date:** 1981

<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>8/25</td>
<td>5826 TVD/&quot;V&quot;/IR/ATLANTIC/LA CA/WI 1.00/SURF LOC: 487.44' N &amp; 778.80' W OF SANTONTO DR &amp; DEL MAR AVE/BHL: 463 N, 100' W OF SURF LOC/370' SD SH D (320) MXNG LCM/MIRU ATLANTIC OIL RIG #3/SPUD @ 2 PM 8-24-81/DRLG 17½&quot; HOLE FRM 50-370, COMPLETE RTNS/WRK TIGHT PIPE OUT OF HOLE/MW 68/VIS 45/</td>
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<tr>
<td>8/26</td>
<td>370 DRLG OUT CMT/MX &amp; PMP 100 BBLS OF 18# PER BBL LCM, NO RTNS/w DP @ 240, PMP 8 YDS OF 3-1 MX CMT/DISP w 22 CF DRLG MUD/POH/WOC 12 HRS, TAG SOFT CMT @ 85/CO MED HDR CMT TO 105 w FULL RTNS/MW 66/VIS 38/</td>
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<tr>
<td>8/27</td>
<td>965 SD SH D (595) LOST CIRC/DRLG CMT &amp; CLND OUT TO 370 w FULL RTNS/DRLG 17½&quot; HOLE FRM 370-965 LOST COMPLETE RTNS/POH/MW 70/VIS 43/</td>
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<tr>
<td>8/28</td>
<td>1120 SD SH D (155) PREPNG TO RUN 13-3/8&quot; CSG/MX LCM PILL, RIH TO 945 w OPN ENDED DP/PMP 100 BBLS OF 18# PER BBL LCM, REGAIN FULL CIRC/TRIP FOR BIT, HAD 15&quot; FILL, NO FLUID LOSS/DRLG 17½&quot; HOLE FRM 965-1120/CIRC &amp; WIPE HOLE TO RUN CSG/MW 71/VIS 57/</td>
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<td>8/31</td>
<td>8-29/1122 SD SH INST CSG HD/CIRC &amp; COND MUD,POH/RAN 28 JTS (1125) 13-3/8&quot; 54.5# BT&amp; C CSG w SHOE @ 1122, FLOAT CLR @ 1076/B.J. PMPD 150 CF SODIUM SILICATE FOLLOWED BY 145 CF POZ &quot;A&quot; 1-1 PERLITE w 4% GEL &amp; 2% CaCl2, FOLLOWED BY 100 CF CL &quot;G&quot; CMT w 2% CaCl2/DISP w 940 CF DRLG MUD/BMPD/PLUG w 1000 PSI, BLED TO 0/440 CF CMT RTNS/CIP @ 10:45 PM/WOC 4 HRS/LND CSG/MW 68/VIS 40/8-30/1122 SD SH RIH w 12½&quot; BIT/CUT OFF CONDUCTOR &amp; CLN CELLAR/WELD ON 13-3/8&quot; CSG HD/INST BOE/RIH w 12½&quot; BIT TO TST CSG &amp; BOE/MW 68/VIS 35/8-31/1503 SD SH D (381) DD/TST CL III BOP &amp; CK BY DOG/DRLG PLUGS, FLOAT CLR, CMT &amp; SHOE @ 1122/DRLG 12P&quot; HOLE FRM 1122-1503/SURV @ 1428, 2'45&quot;, N01/W/TVD 1427.97/SEC. 3.45/N-3.22/W-1.44/MW 68/VIS 36/</td>
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<tr>
<td>9/1</td>
<td>2233 SD SH D (730) DRLG/DRLG 12½&quot; HOLE FRM 1503-2233/SURV @ 2173 13'15&quot;, N25°30'W/TVD 2159.14/SEC.137.22/N-129.88/W-49.32/MW 67/VIS 42/</td>
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<tr>
<td>9/2</td>
<td>2425 SD SH D (192) REPAIRNG HOOK/DRLG &amp; DYN DRLG 12½&quot; HOLE FRM 2233-2455/UNABL TO GET SURV/TRIP TO CHG ORIENTATION SUB/DROP D.C. SLIPS IN BOP/FISHING OUT SAME/SURV @ 2357, 12'30&quot;, N25°30'W/TVD 2338.47/SEC.176.81/N-166.17/W-68.65/MW 69/VIS 38/</td>
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9/3  2714 SD SH D (289) DRLG/FISHED SLIPS OUT OF BOP/DRLG 12½"
     HOLE FRM 2425-2714/RIG OFF DAY WORK FOR 7½ HRS FISHING OUT SLIPS/
     SURV @ 2663, 13°, N02E/TVD 2637.37/SEC.245.62/N-234.85/W-76.00/
     MW 69/VIS 36/  

9/4  2950 SD SH D (236) RIH/DRLG 12½" HOLE FRM 2714-2950/WIPE 12½"
     HOLE TO 11000, HOLE TIGHT/COND MUD/TRIP FOR 8-3/4" BHA/SURV @
     2938, 12°15', N05°30' E/TVD 2905.72/SEC.303.61/N-294.96/W-72.61/MW 70/
     VIS 37/  

9/5  3495 SD SH D (545) TRIP FOR DD/DRLG 8-3/4" HOLE FRM 2950-3495/
     TRIP FOR DD/SURV @ 3495, 10°45', N5°E/TVD 3451.05/SEC.412.36/N-408.54/
     W-63.83/MW 70/VIS 40/  

9/6  3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM
     3495-3822/POH/SURV @ 3758, 6°15', N43°W/TVD 3709.13/SEC.460.58/N-
     453.93/W-79.69/MW 70/VIS 38/  

9/7  3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM
     3758-3822/FISHING/NEW BHA TO 3640/REAM
     8-3/4" HOLE FRM 3640-3792/WRK ON PMP & POH LOOKING FOR WASHOUT/LEFT DBL
     PIN XO, MONEL, & 8-3/4" BIT IN HOLE/NO FISHING TOOLS 5 HRS/RIH w NEW
     DBL BOX XO & ATTEMPT TO SCREW INTO FISH/MW 69/VIS 38/  

9/8  3996 SD SH D (174) DRLG/POH, REC ALL FISH/RIH, REAM Dyna DRL
     RUN FRM 3733-3822/DRLG 9-7/8" HOLE FRM 3822-3996/SURV @ 3955, 2°15',
     N41W/TVD 3905.66/SEC.471.79/N-463.97/W-88.40/MW 68/VIS 38/  

9/9  4170 SD SH D (174) REPAIRNG SWIVEL/DRLG 8-3/4" HOLE FRM 3996-
     4095/REPAIR SWIVEL FOR 7 HRS/DRLG 8-3/4" HOLE FRM 4095-4170/REPAIR
     SWIVEL FOR 4 HRS/MW 68/VIS 45/SURV @ 4139, 1°15', N40W/TVD 4089.56/
     SEC.477.22/N-468.24/W-92.37/  

9/10 4297 SD SH D (127) DRLG/REPAIR SWVL 1 HR/DRLG 8-3/4" HOLE
     FRM 4170-4235/TRIP FOR NEW BIT & TWO D.C./DRLG FRM 4235-4297/SURV @
     4235, 1°15', N69W/TVD 4185.59/SEC.478.76/N-496.46/W-94.08/MW 68/
     VIS 44/  

9/11 4483 SD SH D (186) REPAIRNG PMP/DRLG 8-3/4" HOLE FRM 4297-
     4379/REPAIR SWIVEL 3 HRS/DRLG 8-3/4" HOLE FRM 4379-4483/REPAIR MUD
     PMP FOR 7 HRS/SURV @ 4427, 0°15', N34°E/TVD 4377.52/SEC.480.69/
     N-471.08/W-95.71/MW 70/VIS 37/  

9/12 4673 SD SH D (190) DRLG/REPAIR MUD PMP 1½ HRS/DRLG 8-3/4"
     HOLE FRM 4483-4548/TRIP FOR NEW BIT/DRLG 8-3/4" HOLE FRM 4548-4673/
     SURV @ 4610, 0° VERT/TVD 4560.52/SEC.480.14/N-470.68/W-94.94/MW 68/
     VIS 38/  

9/13 4906 SD SH D (233) PREP TO LOG/DRLG 8-3/4" HOLE FRM 4673-
     4906/CIRC HOLE & COND MUD/WIPE HOLE FOR LOGS, NO FILL/POH FOR LOGS/
     SURV @ 4906 1°, S81°E/TVD 4856.49/SEC.478.56/N-469.82/W-91.45/MW 69/
     VIS 40/
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9/14  4906 TD OH 3234 SD SH OH (284) OH/SCHLUM RAN DLL-GR-TEN FRM 4906-1122/FDC-CNL-GR-CAL-TEN FRM 4902-3000/DIPMETER FRM 4903-3000/TOOK SWC FRM 4607-4006, SHOT 57, REC 42/OPN 8-3/4" HOLE TO 12½" FRM 2950-3234/MW 69/VIS 40/

9/15  4906 TD OH 4095 SD SH OH (861) OH/OPN 8-3/4" HOLE TO 12½" FRM 3234-3451/CIRC & COND HOLE FOR LOG/POH/SCHLUM RAN DIPMETER/UNABL TO GET LOG TOOL BELOW 3482/TRIP FOR DRLG ASSY/OPN 8-3/4" HOLE TO 12½" FRM 3451-4095/MW 70/VIS 43/

9/16  4905 TD OH 4406 SD SH OH (311) OH/OPN 8-3/4" HOLE TO 12½" FRM 4095-4406/MW 69/VIS 37/

9/17  4906 TD OH 4528 SD SH OH (122) OH/OPN 8-3/4" HOLE FRM 4406-4499/POH & REPAIR BRAKES FOR 4½ HRS/OPN HOLE FRM 4499-4528/MW 69/VIS 39/

9/18  4906 TD OH 4685 SD SH OH (157) OH/OPN 8-3/4" HOLE TO 12½" FRM 4528-4685/MW 69/VIS 40 /

9/19  4906 TD OH 4725 SD SH OH (40) RUNNING 9-5/8" CSG/OPN 8-3/4" HOLE TO 12½" FRM 4685-4725/COND HOLE FOR LOG/WO SCHLUM 3½ HRS/SCHLUM RAN DIPMETER FRM 4725-3000/CIRC FOR CSG/RUNNING 9-5/8" CSG/MW 69/ VIS 40 /

9/20  4906 TD PRES TSTG WELL HD/RAN TOT OF 108 JTS (4718) w 56 JTS 9-5/8" 36# S-80 ST&C ON BTM & 52 JTS 9-5/8" 36# K-55 LI&T&C ON TOP/DFC @ 4670/DFC @ 4715/DOVELL PMPD 1076 CF CL 'G' CMT w 1-1 POZ, 0.5% CFR-2, 2% GEL, 3% KCL FOLLOWED BY 200 CF CL 'G' CMT w 0.75% CFR-2 & 3% KCL/DISP w 2060 CF DRLG MUD/DID NOT BMP PLUG/PLED TO 0/40 CF CMT RTNS TO SURF/CIP @ 2:23 PM/REM BOE/INST 9-5/8" PKNG/CUT OFF CSG & WELD ON CSG HD/WAIT ON HD TO COOL/TSTG HD /

9/21  4906 WSO TSTG/TST WELL HD TO 5000 PSI OK/INST CL III BOP & TST TO 1000 PSI OK/RH, TAG PLUG @ 4540/TST PIPE RAMS & BAG, WITNESS BY D. O. G. OK/DRLG PLUGS, CMT & FLOAT CLR TO 4705/CIRC CLN/TRIP FOR WSO TOOL/SHOT 4 - 3½" HOLES @ 4693, SET SLIPS & OPN TOOL @ 6:27 AM w LIGHT BLOW/MW 69/VIS 35 /

9/22  5090 SD SH D (184) DRLG/REL PKR, POH w WSO & REC 30' DRLG MUD/ IH 2200 PSI, -FH 2190, IF 57, FF 57/TST OK & WITNESS BY D. O. G./PU BHA RH INST NEW RUBBERS ON EVERY JT OF DP/DRLG OUT SHOE & CLN OUT TO 4906/DRLG 8-3/8" HOLE FRM 4906-5090/SURV @ 5007, 1º30', S89ºE/TVD 4957.81/SEC. 477.81/N-469.31/W-89.27/MW 68/
1981

9/23 5200 SD SH D (110) DRLG/DRLG 8-3/4" HOLE FRM 5090-5164/ TRIP FOR LOCKED BHA/REAM FRM 4830-5164/DRLG FRM 5164-5200/SURV @ 5200, 1°, S65°E/TVD 5150.44/SEC.475.87/N-468.23/W-85.74/MW 68/ VIS 40/

9/24 5360 SD SH D (160) DRLG/DRLG 8-3/4" HOLE FRM 5200-5360/SURV @ 5290, 0°45', S05°E/TVD 5242.42/SEC.474.58/N-467.13/W-84.93/MW 68/ VIS 38/

9/25 5580 SD SH D (220) DRLG/LOST 50 BBNLS MUD @ 5360/PULL TO SHOE, MX 50 BBNLS LCM/DRLG TO 5360, SPOT LCM PILL/DRLG w FULL RTNS FRM 5360-5580/SURV @ 5447, 1°15', S06°E/TVD 5397.40/SEC.471.40/ N-464.44/W-84.68/MW 68/VIS 38/

9/26 5784 SD SH D (204) DRLG/DRLG 8-3/4" HOLE FRM 5580-5600/TRIP FOR NEW BIT A PK SWIVEL/2½ HRS DN TIME/DRLG FRM 5600-5784/SURV @ 5754 3/4°, S41°E/TVD 5704.38/SEC.468.28/N-461.00/W-83.47/MW 69/VIS 41/

9/27 5850 SD SH D (66) LOGGING/DRLG 8-3/4" HOLE FRM 5784-5850/ WIPE HOLE TO 9-5/8" CSG/CIRC FOR LOGS/RIH w STRTD LOGGNG/SURV @ 5850, 1°15', S70°E/TVD 5800.35/SEC.467.22/N-460.00/W-82.26/MW 69/ VIS 41/

9/28 5850 TD HO 4730 SD-SH OH (15) OH/SCHLUM RAN DLL-GRAIN 8-3/4"HOLE TO 11" FRM 4715-4730/MW 69/VIS 39/

9/29 5850 TD OH 4999 SD-SH OH (269) OH/OPN 8-3/4" HOLE TO 11" FRM 4730-4999/MW 68/VIS 42/

9/30 5850 TD OH 5450 SD-SH OH (460') REPAIRING SWIVEL/OPEN 8-3/4" HOLE TO 11" FRM 4999 TO 5459/PULL TO SHOE TO REPAIR SWIVEL/4-1/2 HRS DOWTIME/MW 68/VIS 38/

10/1 5850 TD OH 5725 SD SH OH (266) OH/REPLACE SWIVEL, 4½ HRS DN/OPN 8-3/4" HOLE TO 11" FRM 5459-5725/MW 67/VIS 40/

10/2 5850 TD, OH 5832 SD SH OH (107) OH/GAUGE 11" HOLE FRM 4715-5725/OPN 8-3/4" HOLE TO 11" FRM 5725-3832/MW 67/VIS 41/

10/3 5850 PREPNG TO CMT 7" CSG/OPN 8-3/4" HOLE TO 11" FRM 5832-5850/PULL TO SHOE, WAIT ½ HR, RIH TO 5850 (NO FILL)/POH/RAN 30 JTS (1217) 7" 26# K-55 BT-C w SHOE @ 5847, FLOAT 5802/CIRC CSG 1 HR WRKNG CSG 40'/MW 67/VIS 41/
1981
10/4 5850 TD 5847 PBTD, CLNG OUT 7" LNR/PMP 468 CF POZ-MIX "A"
CMT 1-1 w .5% CFR-2, 2% GEL, 3% KCL FOLLOWED BY 100 CF CL "G" w
.75% CFR-2, 3% KCL/DISP w 640 CF MUD/BMP PLUG w 1400 PSI, BLEED TO
0/SET & REL FRM LNR/CIRC OUT 50 CF OF EXCESS CMT/POH, PU 8-3/4"
BIT w 9-5/8" 36# CSNG SCRPR/RIH, CO TO 4626 TOP OF LNR HANGER/
TRIP FOR 6-1/8" BIT, 4 - 4-3/4" DC ON 3½" DP TO CO LNR/MW 67/VIS
40/
10/5 5850 TD, 5847 PBTD PREPNG TO PULL BOP/CO TO 5801/TST CSG
TO 1000 PSI FOR 15 MIN, OK/DRL PLUG, FLOAT CLR, CMT TO 5837, 10'
ABOV SHOE/CHG OVR TO 5% KCL WTR/LD 4½" DP & TOOLS/PREP TO PULL
BOP/
10/6 5837 PBTD REL RIG @ 1:30 PM 10-5-81/PULL BOP/INST TBG HD/
REL RIG/DROP FRM REPORT PENDING COMPLETION/
10/10 5837 PBTD/RIG UP SCHLUM & RAN CBL FRM 5815-4000/RIG DN
SCHLUM & MOVE OUT/
10/16 5837 PBTD/MIRU ALLIED PROD RIG/INST BOP/PU BELL NIP ON BTM OF
9-5/8" 36# FB/RIH TO 3211/SET FB/RU & SWAB FLUID LEVL DN TO
700'/OPENING BYPASS EVERY OTHER RUN TO EQUALIZE FLUID IN
ANNULUS/SIFN/
10/17 5837 PBTD/CONT SWABNG FLUID FRM 700-2920/CLOSE IN WELL/
10/18 5837 PBTD/RU MCCULLOUGH & SHOT 4 - 1/3" JHPF FRM 5777-
5764, HAD 25' FLUID RISE AFTR 1 HR/POH w FB/RAN SNKR BAR TAG BTM @
5837 (BTM)/RAN 500 KILL STG/SIFN/
10/19 5837 PBTD/PULL KILL STG/MAKE UP GAS ANCHOR & RIH ON 180 JTS OF
2-7/8" TBG w TAIL @ 5766/RAN 2½x1½x12'x15' PMP ON 123 3/4" RODS &
66 7/8" RODS/SIFN/
10/20 5837 PBTD/SPACD OUT BH PMP/FILLED TBG STG w LSE PROD WTR/CLND
LOCATN/RDMO/PUT WELL ON PROD/IN TST 17 HRS/0 BO, 124 BW/TBG 32#,
CSG 0#/12.5 SPMx72" LOS/FL 4341, OP 1392/
10/21 7 HRS/0 BO, 25 BW/TBG 32#/CSG 0#/12.5 SPMx72" LOS/FL
5733 @ PMP/NOTE! BH PMP SANDED UP, STUCK IN OPN POSSITION @
2:00 PM 10-21-81/SHUT PU DN/SHT FL @ 5:00 AM 10-22-81, FL @
5733, NO FLUID ENTRY/
10/22 WELLTECK MIRU/FND BH PMP STUCK, UNABL TO WRK LOOSE/REL ON & OFF TOOL
POH w RODS/INSTLD BOE/REL BKR 7" 26# ANCHOR-CASTCHER, LOWERD TBG TO
5837 (TD)/PULLING OUT HOLE w TBG WET/SIFN/
1981

10/23 CONTD PULLING TBG OUT OF HOLE, PULLING WET/FLUID ABOV PMP SHOE WAS MUDDY WTR w NO SD/FLUID SAMPLE FRM PMP & MUD ANCHOR TSTD 40% SOLIDS & CLORIDES OF 3600 PPM+, OR EQUAL TO 5% KCL WTR, LEFT IN HOLE, NO FORMATION WTR IN EVIDENCE/SENT BH PMP TO SHOP, PMP PLGR STUCK IN PMP BARREL w BUILD UP OF A CARBON TYPE MATERIAL ON PLGR WHICH COULD BE REMOVED w KNIFE/RH w 2-1/8" BAILER, BAILD UNSET & CONTAMINATD CMT FRM 5826-5841 (7" SHOE @ 5847)/RHI w 9-5/8 36# BKR FB ON 101 JTS 2-7/8" TBG TO 3211/PMDP 171 BBLS OF 5% KCL WTR DN TBG, SHOT FL TOP OF KCL WTR @ 2892/SET FB/ST FN.

10/24 RU SCHLM, INSTLD LUBRICAT/RAN 2-1/8" DOMED SCALLOP THRU TBG GUN w 6.5 GM CHG, 0.32" EH, 0º PHASE, DECENTRALIZD, 13' 52 SHOTS, RHI, 1ST RUN CLR LOCATR SHORTD OUT/2ND & 3RD RUNS, FAULTY CLR LOCATR/REMOVD LUBRICAT/REL SCHLM/SHUT WELL IN TILL AM 10/26/81/

10/26 RU SCHLM & FULL LUBRICATOR/MU 2-1/8" OD DOMED SCALLOP THRU TBG GUN (6.5 GRM CHG, 0.32" EH); 0º PHASE; DECENTRALized; 13'-53 SHOTS w CLR LOCATR, RHI, LOCATD CLRS @ 5723, 5764 & 5810 (NOTE FL INSIDE TBG @ 2888) SHOT HOLES FRM 5764½ TO 5777½/WAITD 15 MIN & FND FL INSIDE TBG @ 2370 (518 FLUID RISE)/REL SCHLM/REL FB PKR & POH w TBG/MEAS IN HOLE w TBG & BKR "B-2" 7" 26# ANCHOR CATCHER, REMOVD BOE & SET ANCHOR w TOP @ 5317.92, LANDED TBG w ST @ 5703.14/RAN 2½"x1-3/4"x25' 3 - TUBE PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w 16 BBLS WTR/PUT WELL ON PROD INTO BKR TANK/RDMO/NOTE: SHOT FL BEFORE PRODUCNG WELL @ 2770/NO TEST, FND PU DN THIS AM 10-27-81, MURPHY HI-LO FLOWLINE PRESSURE SWITCH, SHUT WELL DN/

10/27 14 HRS/0 BO, 165 BW/TBG 42# CSG 0#/1/12½ SMPx72" LOS/FL 5671, @ PMP/SHUT WELL IN 1 HR/FL 5589, OP 82'/POP WELL PMDP OFF IN 30 MIN/SHUT IN 9 HR/FL 5589, OP 82/POP, WELL PMDP OFF IN 30 MIN/ SWI, POUNDING FLUID/FL 5671 @ PMP/

10/28 WELLTECK MIRU/SHOT FL @ 5637 (34' OVR PMP)/UNSEATD 3 TUBE PMP, EQUALIZED FLUID, SHOT FL @ 4847 (824' OVR PMP)/POH/INSTLD BOE/REL BKR ANCHOR CATCHER, LOWERD TBG, TAGGED BTM @ 5737 (NO FILL)/LD DN EXCESS TBG/SFT TBG ANCHOR CATCHER w TBG ST @ 5766.68', PMP SHOE @ 5734.33/ RAN OILWELL 1 -½"x1-3/4"x25' 3 TUBE PMP & RODS/FILLED TBG w 21 BBLS PROD LSE WTR/POP @ 7:40 PM 10-28-81, IN TEST/SHOT FL PRIOR TO PRODUCNG FL 4809' (924' OVR PMP)/9 HRS/0 BO, 28 BW/TBG 25#, CSG 0#/11 SMPx72" LOS/FL 5733, @ PMP/SHUT WELL IN @ 5:00 AM 10-29-81/
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10/29 24 HR SI BUILD UP TST/TBO#/CSG 5#/FL 5637, OP 96/
10/30 3/8 HR/1.2 BO, .3 BW/TBG 18#/CSG 0#/11 SPMx72" LOS/
FL 5650, OP 83'/
10/31 3/8 HR/1.8 BO, .2 BW/TBG 16#/CSG 0#/11 SPMx72" LOS/
FL 5662, OP 71'/
11/1 3/8 HR/1.8 BO, .2 BW/TBG 15#/CSG 0#/11 SPMx72" LOS/
FL 5656, OP 77'/
11/2 3/8 HR/.96 BO, .04 BW/TBG 15#/CSG 0/11 SPMx72# LOS/FL 5662, OP 71/
11/3 NO REPORT/WELL SHUT IN FOR STATIC BUILD UP TEST/
11/4 NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TEST/
11/5 NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TST/
11/6 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/7 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/8 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/9 NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/10 CP 52/FL 5298, OP 435/
11/11 CP 60#/FL 5263, OP 470/
11/12 SICP 68#/STATIC FL 5212/OP 521/
11/13 SICP 73#/STATIC FL 5176, OP 557/
11/14 NO REPORT/
11/15 SICP 82#/WTATIC FL 5086', OP 647'/
11/16 SICP 92#/STATIC FL 5032, OP 701/
11/17 WELL TECK MIRU/INSTLD ROD REGAN/POH w 66 - 6/8" & 125 -
3/4" x 30' SUCKER RODS & 3 - TUBE PMP/UNLANDED TBG, REL BKR TBG
ANCHOR, INSTLD BOE/POH w 180 JTS 2-7/8" TBG/MU 1½" SNKR BAR, RIH
ON SD LINE TO 5837, NO FILL/MU 2-3/8" x 1-3/4"x16'x28'x32' "THE"
PMP BARREL BELOW 7" - 26# BKR FB PKR ON 160 JTS 2-7/8" TBG, RIH TO
4560/SIFN/
11/18 CONTD IN HOLE w 7" 26# FB PKR & 2-7/8" TBG, SET FB @
5697, w BTM OF "THE" PMP BARREL @ 5737/RU DOWELL/FILLED ANNULUS
w 340 BBLS OF 65% 5% KCL WTR/PRESS ANNULUS TO 500 PSI/PMPD 1000
GALS "MSR" ACID w 40# FLAX 4 DIVERTING AGENT & 92 GALS 15% HCL
ACID w MUTUAL SOLVENT DN TBG/SQZD TOT 378 GALS ACID AWAY IN 4 HRS
w MAX PRESS OF 2000#, BLEEDING BK TO 1000 PSI IN 3 MIN, FORMATION
TIGHT/OPENED UNLOADR REV CIRC ACID OUT OF TBG w 35 BBLS OF 5% KCL
WTR/SIFN/
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11/19 REL FB/REV CIRC w 5% KCL, RECOVERD 10 BBLs CRUDE OIL FRM ANNULUS/LOWERD TBG FRM 5737-5835, REV CIRC 1 HR NO ACID IN RTNS/PU TO 5737/SHUT WELL IN TILL AM 11/20/81/

11/20 LOWERD TBG TO 5780 (3' BELOW PERFS)/DISPL TBG w 45 BBLs OF KCL WTR, RECOVERD 20 BBLs CRUDE OIL FRM ANNULUS/RU DOWELL, PMPD 100 GALS 12% HCL-3% HF ACID w INHIBITORS & SURFACTANT ADDED, FOLOWD w 1344 GALS 5% KCL WTR, SPOTTED ACID ACROSS PERFS (5764-5777½')/PU SET FB @ 5675 w BMT OF "THE" PMP BARREL @ 5716/TSTD ANNULUS TO 800 PSI, OK/OPEND UNLOADR, PMPD DN TBG w 150 GALS 12-3 MUD ACID, FOLOWD w 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTR, FOLOWD w 190 GALS 15% HCL ACID w 10% MUTUAL SOLVENT, CLOSD UNLOADER/PRESSURD ANNULUS TO 800 PSI/SQZD ACID AWAY w 810 GALS 15% HCL ACID, FOLOWD w 1450 GALS KCL WTR, PRESSURE & RATE STAYD CONSTANT THRTHOU SQZ 2750 PSI @ 12 BBL PER MIN/ACID IN PLACE @ 3:00 PM, SHUT IN PRESS 2750#/BLED DN TO 500#/ IN 15 MIN, 0#/ IN 30 MIN, NO FLEED BK/MU & RAN STGD VALVE & PMP PLGR & RODS/STROKD PMP w RIG FOR 1½ HRS, RECOVERD 6 BBLs KCL WTR (APPARENT LOW FLUID ENTRY) LET SET 1 HR, STROKD AGAIN FOR 1 HR, RECOVERD 5 BBLs KCL WTR, PMPD OFF/PULLD STGD VALVE, PLGR & 150' OF ROD UP HOLE/DISPL 12 BBLs KCL WTR DN TBG @ 1000 PSI/STIFN/

11/21 SEATD STGD VALVE, FILLED TBG w 1½ BBLs 5% KCL WTR, STROKD PMP w RIG/WELL PMPD OFF AFTR 1½ BBLs RTNS/LET SET FOR 15 MIN, PMPD 1½ BBL/PULLED STGD VALVE, POH w RODS & PMP PLGR/RELSD FB & LOWERD TBG TO 5830/FILLED HOLE w 8 BBLs 5% KCL WTR, REV CIRC, GOT ph OF 3 AFTR 30 BBLs, ph OF 7 AFTR 75 BBLs RTNS/PULLED TBG w TAIL TO 5500/SHUT WELL IN TILL AM 11-23-81/

11/23 LOWERD TBG FRM 5500-5837, NO FILL/POH w TBG, LD "THE" PMP BARREL/MU 2½" API T/L PMP SHOE ON 3½" OD MUD ANCHOR, RIH ON 11 JTS 2-7/8" TBB, ON BKR 7" ANCHOR CATCHER, ON 169 JTS 2-7/8" TBG/REMOV'D BOE/SET ANCHOR @ 5383.84 & LANDED TBG w TBG ST @ 5766.68/RAN 2½"x1-3/4"x25 3-TUBE PMP ON 125 - 3/4 & 66 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, HUNG WELL ON/RDMO/WELL SHUT IN/ DROP FRM REPORT/
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12/1 CPS MIRU/POH w RODS & 3 TUBE PMP/REL BKR TENSION PKR/INSTL BD E/SIFN/

12/2 POH w 180 JTS 2-7/8" TBG/MU BROWN 7" 26#, 4 CUP w 1' SPACING BETWN CUPS, RIH ON 2-7/8" TBG TO 4500/RU BJ HUGHES/LONG BEACH CITY INSPECTOR SHUT RIG DN DUE TO HIGH NOISE LEVEL IN AREA/MADE WELL SECURE/SIFN/

12/3 WITH 7" 26# BROWN 4 CUP PKR @ 4500 (IN 9-5/8 CSG) BJ HUGHES FILLED HOLE w 162 BBLS OF 5% KCL WTR/LOWERED PKR TO 5700, BLANKD TOOL IN 7" CSG @ 3500 PSI/LOWERED TOOL TO 5777, PMPD 2 BPM IN PERFS @ 1000 PSI @ 5776' 2 BBLS PER MIN @ 1000#, 5775' 2 BPM @ 500#, 5774' 2 BPM @ 500#, 5773' 2 BPM @ 500#, 5772' 2 BPM @ 500#, 5771 2 BPM @ 400#, 5770 2 BPM @ 500#, 5769 - 2 BPM @ 600#, 5768' 2 BPM @ 600#, 5767' - 2 BPM @ 800#, 5766' - 1 BPM @ 1000#, 5765' - 2 BPM @ 1200#, 5764' - 2 BPM @ 1300 PSI/POH/RU DRESSER ATLAS, PERFORATED THE FOLLOWING INTERVALS w 4" O.D. CSG GUNS, 4 - .43" HOLES/FT, 22 - ½ GRAM JUMBO JET CHG, 15.07" PENETRATION, FRM 5757-5749, 5748-5738, 5736.5'-5734.5'-5733-5723.5'/REL DRESSER ATLAS/RIH w 2-7/8" TBG, REMOVD BOE, SET BKR ANCHOR-CATCHER w 2500# TENSION, PMP SHOE @ 5737/SIFN/

12/4 20 HRS/0 BO, 224 BW/TBG 32#/CSG 0#/11 SPMx72" LOS/FL 3398, OP 2335/WELL OWES 130 BBLS OF KCL LOAD WTR/

12/5 24 HRS/0 BO, 153.5 BW, 1.5 BBLS MUD/TBG 30#/CSG 0#/11 SPMx72" LOS/FL 5478, OP 255/WELL PD BK ALL LOAD WTR PLUS 35 BBLS FRM WEL/

12/6 3.5 HRS/.2 BO, 10.3 BW/TBG 20#, CSG 0#/11 SPMx72" LOS/FL 5624, OP 109/WELL NOT PRODUCING/SHUT DN FOR STATIC BUILD UP, 13½ HRS, FL 5323, OP 510/

12/7 22 HRS/0 BO, 33 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5695, OP 39/LOW FLUID ENTRY/

12/8 6.5 HRS/0 BO, 5 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/WELL PMPD OFF @ 3:30 PM/SHUT DN PU/FLUID LEVEL AFTFR 15 HRS WAS 5365, OP 368/APPROX 11 BBLS ENTRY/

12/9 3 HRS/0 BO, 13 BW/TBG 9#/CSG 0 (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5644, OP 89/WELL QUIT PMPN (PMPD OFF)/SHUT WELL IN @ 10:30 AM 12-9-81 FOR FL BUILD UP TST/7:30 AM 12-10-81/21 HRS/FL 5282, OP 451/CSG 14#/SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/C5G 24#/FL 4935, OP 798/

12/10 SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/C5G 32#/FL 4650, OP 1083/

12/11 SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/C5G 38#/FL 4490, OP 1243/DROP FRM REPORT UNTIL TST IS COMPLETE/

12/12 FLUID LEVEL BUILD UP TST COMPLETE/RESUME OPERATIONS TO ACIDZ PERFOR AT INTERVALS 5724-5736 & 5738-5756 TO REMOVD SUSPECT CLAY SWELLING & EMULSION BLOCKAGE IN FORMAT/CSG MIRU/INSTL SD PROOFNG SCRNR AROUND RIG & EQUIP/STAKD OUT RODS FILLED TBG w LSE WTR, TBG OK/POH w 65 - 7/8, 123 - 3/4"x30' SUCKER RODS & PMP/RELSD BKR TENSION ANCHOR-CATCHER/INSTL BD POH w 167 JTS 2-7/8" TBG & CATCHER/SIFN
DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLB# #8-7
Sec.13, T45S.R13W

1981

1/16
POH w KILL STG/MU BKR 7" 26# CSG SCRPR ON 2-7/8" TG, HYDROTESTING TG, IN
HOLE @ 5000 PSI (NO LEAKS) TO 5780, NO RESTRICTNS/POH/MU BKR 7" 26# MOD "C"
BRIDGE PLUG ON BKR 7" 26# FULLBORE PKR, ON 2-7/8" TG, RIH TO 4500/CLOSD WELL
IN TILL AM 1-18-82/

1/17
CONTD RIH w BKR BP & FB PKR/SET BP @ 5760/PK w FB @ 5755, FILLED HOLE w
277 BBLs PRODUCED WTR/RU BJ HUGHES, PMPD 33 BBLs OF 2% AM-CL WTR ON TG/BU
PULLED FB UP & SET @ 5650/TSTD SURF LINES TO 4000 PSI/PMPD PRODUCED WTR IN
ANNULUS, PRESSURE UP TO 1000 PSI/OBTAINED BKR DN w 20 FT³ OF AM-CL WTR @ 1
BBL PER MIN @ 2700 PSI/OPND UNLOADER & PMPD 600 GALS 15% HCL ACID w 2 GALS
INHIBITOR & IRON CHELANT, PLUS 300 GALS OF 12% WTR, 3% HF ACID w ADDITIVES DN
TG/CLOSD UNLOADER, PRESS ANNULUS TO 800 PSI/SGD w 600 GALS OF 12% HCL 3% HF
ACID @ 1 BBL PER MIN @ 2500 PSI, AFTR PMPNG 1500 GALS PRESSURE DRPD FRM 2500#
TO 1750 PSI @ 2.5 BBL PER MIN RATE REMAINING CONSTANT THRU OUT JOB/CONTD SQNZG
AWAY w REMAINING 300 GALS OF 12-3 ACID FOLLOW w 600 GALS OF 15% HCL ACID &
1200 GALS OF DIESEL w 1% J-10 SURFACTANT/DISPL TG w 25 BBLs 2% AM-CL WTR/
REL FB, LOWERD TBG & RETRIEVED BP/POH w TBG & TOOLS/RIH w 179 JTS TBG/SIFN/

1/19
COMPLETD RIH w 2-7/8" TG/REMOVTD BOE/SET BKR ANCHOR-CATCHER @ 5350 w
12,000# TENSION, PMP SHOE @ 5703 & BTM OF MUD ANCHOR @ 5734.82/RAN 24"x14"x
12'x13' RHA PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPAC'D
PMP, FILLED TBG w WTR/REMOVTD SOUND SCREEN/RDMO/POP/IN TST 15 hrs/0 BO, 102 BW/
TBG 42#/CSG 0#/11 SPMx72" LOS/FL 2677, OP 3008/pH OF 7/WELL OWES 260 BBLs OF
LOAD WTR & ACID/

1/20
24 HRS/0 BO, 160 BW/TBG 40/CSG 39/11 SPMx72" LOS/FL 4431, OP 1254/ pH OF 7/
WELL OWES 100 BBLs OF LOAD WTR & ACID/

1/21
9½ HRS/0 BO, 56 BW/TBG 40/CSG 66/11 SPMx74" LOS/FL 5685, OP @ PMP/SHUT
WELL DN @ 4:30 PM, PMPD OFF/WE LL OWES 44 BBLs OF LOAD WTR & ACID/

1/22
POP @ 9:30 AM/TBG 65#/CSG 80#/FL 4928, OP 757/PRODUCED UNTIL PMP OFF/5½
HRS/14 BBLs OF DIESEL w TRACE OF OIL, 16 BBLs WTR w MUD TYPE SEDIMENT/11
SPMX72" LOS/FL 5685, OP @ PMP/SHUT IN UNTIL 7 AM 1-23-82/7:00 AM 1-23-82/
CSG 58#/FL 5054, OP 631/WELL OWES 14 BBLs OF LOAD WTR & ACID/

1/23
POP @ 9:30 AM/TBG 65#/CSG 58#/FL 5054/OP 631/PRODUCED UNTIL PMP-OFF 6 HRS/
0 BO, 29 BW/TBG 63/CSG 63/11 SPMX72" LOS/FL 5685, OP @ PMP/SHUT IN TILL
AM 1-24-82/WELL HAS PD BK 14 BBLs OF LOAD WTR & ACID, PLUS 15 BBLs FRM WELL/
7:00 AM 1-24-82/CSG 90#/FL 5126, OP 559/

1/24
POP @ 7 AM/TBG 65/CSG 90/FL 5126, OP 559/PRODUCED UNTIL PMP-OFF/5 HRS/1 BO,
24 BW/TBG 65/CSG 90/11 SPMX72" LOS/FL 5685, OP @ PMP/SHUT IN TILL AM/8:00
AM 1-25082 CSG 80/FL 5001, OP 684/

1/25
5½ HRS/0 BO, 31 BW/TBG 68/CSG 15/11 SPMX72" LOS/FL 5685 @ PMP/7:00 AM
1-26-82/STATIC BUILD UP/18½ HRS/CSG 15/FL 5102, OP 583/

1/26
4 HRS/0 BO, 20 BW/TBG 58/CSG 16/11 SPMX72" LOS/FL 5685 W/PMP/7:00 AM
1-27-82/STATIC BUILD UP/20 HRS/CSG 16/FL 5023, OP 662/DROP FRM REPORT/
AWAIT APPROVAL ON RECOMPLETION PROGRAM/
DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec.13,T4S,R13W

1981

2/2

RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APPROVED TO PLUG EXISTING PERFORATIONS & RECOMPLETE WELL IN THE "K" SAND/WELLTECK MIRU/POH w RODS & PMP/rel tbg anchor-catcher, Instld BOE, POH w 2-7/8" TBG, PMP SHOE & MUD ANCHOR/RIH w 2-7/8" TBG, OPN ENDED TO 5777/RU HALIB, FILLED HOLE w 300 BBLS LSE WTR/(RECOVER 8 BBLS OIL) HALIB MDX & PMPD 50 FT³ CL "G" CMT w 2% CaCl₂, ACROSS PERFS @ 5777-5724, DISPLACED w 178 FT³ LSE WTR/POH TO 4450, LEAVING EST TOC @ 5544/PLACING CMT PLUG FRM 5777, WITNESSED BY D.O.G. REP, MR. G. W. STACK/SIFN/

2/3

RIH, TAGD TOC PLUG @ 5583/POH/MEAS & PU LYNES 9-5/8" SHOOT & TST TOOL w 2'x4" JET PERF GUN, CONTAINING 4 - 1/2" CHARGES, RIH ON 4-3/4" D.C. ON 132 JTS OF 2-7/8" TBG TO 4356/ROTATD TBG TO ACTIVATE GUN, PU & SET PKR @ 4296, OPENED TOOL, HAD FAINT BLOW FOR 10 MIN, DEAD FOR REST OF 1 HR TST/POH w TBG & TOOLS, HAD 120' OF FLUID IN TBG/INSPECTION SHOWD THAT GUN HAD NOT FIRED/TORQ DN TOOLS & SENT TO SHOP/RIH w KILL STG/(NOTE: D.O.G. REP, G.W. STARK WITNESSED TOP OF CMT PLUG @ 5583)/SIFN/

2/4

RIH w LYNES 9-5/8" SHOOT & TST TOOK, w 2'x4" GUN LOADED w 4 - 1/2" SHOTS, ON 4 - 4-3/4" DC's ON 132 JTS 2-7/8" TBG/SHOT 4 HOLES @ 4356/PU & SET PKR @ 4296 w TAIL @ 4324/HAD SLIGHT BLOW FOR 14 MIN, DEAD FOR REMAINDER OF 1 HR TST/REL PKR, POH, RECOVERD 120' OF WTR IN TBG/READ CHARTS, L.H. - 1850#, FH 1851#, 1.F. 43#, F.F. 55#/RU DRESSER ATLAS, RAN GAMMA RAY COR LOG FRM 4500-4000/PERFD 4412-4402, 4401-4391, 4391-4383, 4368-4376, TOT OF 143 SHOTS w 4" JUMBO JET II HOLLOW STEEL CARRIER GUNS w 4 - 1/2" HPF w 24.2 GRAM CHARGES/REL DRESSER ATLAS/NOTE: UNABL TO DETECT ANY FLUID RISE AFTR SHOOTING/RIH w 156' OF 2-7/8" TBG TAIL BELOW BKR 9-5/8" 36# FB PKR ON 75 JTS 2-7/8" TBG TO 2548/SIFN/

2/5

BLED WELL DN, HAD SLIGHT VAC ON CSG/CONTD IN HOLE w FB/RU HALIB, FILLED HOLE w 30 BBLLS OF LSE WTR/SET FB @ 4205, ATMPTD TO TST ANNULUS @ 700#, WD NOT TST/PU & SET FB @ 4011, PMPD AWAY DN ANNULUS @ 14 FT³ MIN @ 350 PSI/RESET FB @ FOLLOWING DEPTHS w SAME RESULTS 2005, 992/SET FB @ 105, PMPD AWAY @ 14 FT³ MIN @ 350 PSI w RTNS FRM TBG/SET FB @ 100', TSTD ANNULUS TO 1000# OK/LOWED FB TO 112, PMPD AWAY @ 14 FT³ MIN @ 350 PSI w NO COMMUNICATN THRU TBG/POH w FB/RAN KILL STG/SIFN/

2/6

MU BKR 9-5/8" 36# BP ON BKR 9-5/8" 36# FULLBORE PKR ON 2-7/8" TBG, RIH TO 4300/SET FB/PB TO 2003, SET FB & TST 9-5/8" CSG @ 500 PSI OK/RECOVER BP, PU HOLE TO 110, SET FB, TSTD 9-5/8" TO 500 PSI OK/SET BP @ 135, PU SET FB @ 80', PMPD AWAY @ 12 FT³ MIN @ 300 PSI/REL FB/POH/DMPD 5 SX SIH SD, WAITD ½ HR, RIH & TAGD TOP OF SD @ 121 SET FB @ 80'/OPENED VALVE ON 13-3/8" ACHIEVED CIRC IMMEDIATELY, MDX & PMPD 60 FT³ AP1 CL "G" CMT w 2% CaCl₂, GOT CMT TO SURF, CLOSED 13-3/8" VALVE & PMPD 113 FT³ OF CMT AWAY @ 14 FT³ OF CMT AWAY @ 14 FT³ MIN @ 350 PSI/SHUT PMP DN, TBG WENT ON A VAC/PMPD REMAIN DR OF 200 SX, 57 FT³ @ SAME RATE & PRESS/CLEARD TOOLS & CSG w 20 FT³ OF FRESH WTR/SHUT WELL IN TILL A.M 2-8-82/
DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec.13,T4S,R13W

1981

2/8 REL FB/LOWEFD FB TAGGED TOC @ 95'/POH/MU 8-3/4" BIT ON 9-5/8, 36# ROTOVERT SCRPR ON 2 - 4-3/4" O.D. DCs, DRLED OUT CMT FRM 95-121 (TOP SD PLUG)/POH/MU 9-5/8 36# FB, RIH TO BO, SET FB, PUT 500# ON BK SIDE, PMPD DN TBG, ESTABLISHED BRK DN OF 1/2 BBL PER MIN @ 500 PSI, OPENED VALVE BETWN 13-3/8" & 9-5/8" ANNNULAR SPACE, NO COMMUNICATINS/RELSD FB/POH/RAN 2-7/8 TBG OPN ENDED TO 105, PMPD 25 FT³ CL "G" CMT w 2% CaCl₂, DISPL w 1.5 FT³ FRSH WTR/POH/CLOSBD BLIND RAMS & VALVE ON 13-3/8"/STRTBD BRADEN HEAD SQZ @ 5 PM/SQZD AWAY 6 FT³ @ 6:30 PM, DID NOT EXCEED 500 PSI/SIFN/

2/9 BLED WELL DN, HAD 200 PSI ON ANNNULAR/RIH w 8-3/4" BIT ON 9-5/8" 36# ROTOVERT SCRPR ON 1 - 4-3/4 DC/DRLED OUT CMT FRM 57-106, CMT STGRS TO 111'/PRESS TSTD 9-5/8" CSG TO 500 PSI, HELD FOR 15 MIN OK/POH LAYNG DN DC SCRPR & BIT/MU BRIDGE PLG RETRIEVNG HD, RIH ON 2-7/8" TBG, CIRC OUT SD FRM 121-135, RETRIEVED 9-5/8" 36# BP/POH/LOADED OUT POWER SWIVEL & TOOLS/RIH w 158' of 2-7/8 TBG TAIL ON 9-5/8" 36# FB PKR ON 2-7/8" TBG TO 200'/SIFN/

2/10 CONTD RIH w 2-7/8 TBG TAIL @ 4411, PMPD & SPOOTD 1200 GALS 15% HCL ACID w ADDITIVES ACROSS PERFS FRM 4411-4368/PUH, SET FB @ 4204 & TBG TAIL @ 4364, PRESS ANNNULAR ABOV PKR w 500 PSI/HALIB PMPD REMAINING 600 GALS OF 15% HCL ACID AWAY INTO PERFS w MAX RATE OF 56 GALS MIN @ 2500 PSI/FOLOWD w 1800 GALS OF 12% HCL, 3% HF ACID & REQUIRED ADDITIVES, w MIN PMPG RATE OF 56 GALS MIN @ 2000 PSI @ STRT, TO MAX PMP RATE OF 95 GALS MIN @ 1600 PSI/FOLOWD ACID w 25 BBLS 2% AM CL WTR, DISPL TBG w 25 BBLS LSE PROD WTR @ 95 GAL MAX RATE @ 1600 PSI @ FINISH/REL FB/POH LAYNG DN 48 JTS OF 2-7/8 TBG & FB/MU & RAN 3½" OD MUD ANCHOR, 2½" AP T/L PMP SHOE, 4 JTS 2-7/8 TBG, 2-7/8x9-5/8" 36# PAGE "R" TBG ANCHOR, 1 JT 2-7/8 TBG, PAGE "R" TBG DRAIN ON 25 JTS 2-7/8 TBG/SIFN/

2/11 CONTD RIH w 106 JTS 2-7/8" TBG/LANDED TBG w ST @ 4393.29, PMP SHOE @ 4360.66/REMOVD BOE/PU OILWELL 2½"x1¼"x10'x13' ACID PMP ON 107 - 3/4x30 & 36 7/8x30' SUCKER RODS/SEAT ED & SPACED OUT PMP/FILLED TBG w LSE PROD WTR/RDMO/WELL OWES 498 BBLS LOAD WTR & ACID/PUT WELL ON PRODUCTION INTO BKR TK @ 4:30 PM/IN TST 14 HRS/0 BO, 133 BW/TBG 50/CSG 0/11 SPMx72" LOS/FL 1536, OP 2813/PH 2/WELL OWES 365 BBLS LOAD WTR & ACID/

2/12 24 HRS/0 BO, 187 BW/TBG 50/CSG 3/11 SPMx72" LOS/FL 3656, OP 693/ph 5/WELL OWES 178 BBLS OF LOAD WTR & ACID/

2/13 11½ HRS/0 BO, 59 BW/TBG 35/CSG 18/11 SPMx72" LOS/FL 4349 @ PMP/WELL OWES 119 BBLS OF LOAD WTR & ACID/SHUT WELL DN 6:30 PM 2-13-82/PMPD OFF/

2/14 WELL SHUT IN FOR STATIC FLUID BUILD UP/

2/15 WELL SI FOR 36.5 HRS, STATIC BUILD UP/FL 3698, OP 651, PRIOR TO STRT UP @ 7:20 AM 2-15-82/PMPD 4 HRS/0 BO, 41 BW/11 SPMx72" LOS/FL 4349 @ PMP/SHUT WELL IN @ 11:20 AM 2-15-82/

2/16 WELL SI FOR 20½ HRS, FLUID BUILD UP/FL 4123, OP 226, (226' RISE)/POP @ 8:00 AM/1 HR 45 MIN/0 BO, 11 BW/CSG 16/FL 4349 @ PMP/SHUT WELL DN/PMPD OFF/
WELL SI FOR 22 HRS, FLUID BUILD UP (125') FL 4224, OP 125/CSEG 16/PNP @ 8:00 AM 1 HR 15 MIN/O BO, 7 BW/CSEG 16/FL 4349 @ PMP/SHUT WELL DN @ 9:15 AM, PMPD OFF/DROP FRM REPORT/

RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APPROVD/TO PLUG EXISTING PERFORATIONS IN THE "K" SD & RECOMPLETE IN THE "I" SD/CPS MIRU/PULLED 36 - 7/8" & 107 - 3/4x30' SUGGER RODS & PMP/INSTLD BOP/POH w 136 JTS 2-7/8" TGB (4328)/RIH w SINKER BAR ON SD LINE TO 5500 (83' FILL)/CMT PLUG @ 5583/RIH w 136 JTS OF 2-7/8" TGB, OPN ENDED TO 4328/SIFN/

LOWERED TGB TO 4423/RIH CIRC PMP, FILLED HOLE w 325 BBL S OF PROD WTR/ RU HALIB MXD & PMPD 75 FT' GLASS "G" CMT w 2% CaCl2, DISPL w 24 BBLS PROD WTR/CMT IN PLACE @ 11:20 AM/PU TO 4225, REV CIRC w/50 BBLS OF PROD WTR/ MR. W. SANTIAGO w D.O.G. WITNESSED PLACEMENT OF PLUG/POH w 10 STD'S/SIFN/

LOWERED TGB & LOCATD TOP OF CMT PLUG @ 4243/WITNESSED & APPROVD BY D.O.G./POH w 46-29 BBL JOHNSTON SHOOT & TST TOOLS ON 2-7/8" TGB, SHOT 4 - 3/8" HOLES @ 4031/MADE 1 HR WSO TST w PKR SET @ 3959 & TAIL TO 3988, HAD MED TO LIGHT BLOW FOR 25 MIN, DEAD REMAINDER OF TST/PULLED TGB & TST TOOLS, HAD 64' FLUID RISE IN TGB, INITIAL HYDRO 1733, INITIAL FLOW 40.5, FINAL FLOW - 46, FINAL HYDRO 1704/WSO WITNESSED & APPROVD BY D.O.G. REP WILLIAM E. BRANNON/RU DRESSER ATLAS/RIH w CENTRALIZ 4" OD JUMBO JET II HOLLOW STEEL CARRIER GUNS w 22.5 GRAM CHARGE, PERFD 9-5/8" CSEG w 4 - 1" HPF, @ 4119-4109, 4108-4091, 4069-4059, 4058-4038, TOT OF 234 HOLES, HAD 10 MIS FIRES ON BMT OF 1ST GUN RUN/REL DRESSER ATLAS/RIH w 600' KILL STG TGB/SIFN/

POH w KILL STG/RAN SNKR BAR TO 4243, NO FILL/RIH w 9-5/8" 36# BKR FB PKR w 160' OF 2-7/8" TGA ON 2-7/8" TGB, TAIL @ 4048, FILLED HOLE w 40 BBLS LSE WTR/SET PKR @ 3888, PSTD ANNULS TO 500 PSI, OK/REL FB & LOWERED TGB, TGB TAIL TO 4118/HALIB SPOTTED 1000 GALS OF 15% HCL PAD ACID ACROSS PERFS 4118-4036/P & SET FB @ 3878 TAIL @ 4038, PRESS ANNULS w 500/HALIB SQD AWAY 300 GALS 12% HCL - 3% HF ACID @ 13 FT 3 PER MIN @ 1250 PSI, PMPD 125# BENOZOIC FLAKES, FOLQW w 500 GALS 12-3 ACID @ 12 FT 3 PER MIN @ 1500# PSI, 125# BENOZOIC FLAKES, 500 GALS 12-3 ACID @ 17 FT 3 PER MIN @ 1500 PSI, 125# BENOZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT 3 PER MIN @ 1250 PSI, 125# BENOZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT 3 PER MIN @ 1200 PSI, 125# BENOZOIC FLAKES, 500 GALS 12-3 ACID, @24 FT 3 PER MIN @ 1200 PSI, OVERFLSHD ACID w 1001 GALS OF 2% AM/CL WTR @ 24 FT 3 PER MIN @ 1100 PSI/POH w GAS ANCHOR, PMP SHOE ON 40 STD'S OF 2-7/8" TGB/SIFN/(NOTE: WELL OWES TOT OF 509 BBLS OF LOAD WTR & ACID)/

CONT'D RIH w 2-7/8 PROD STG TGB (125 JTS TOT)/REMOV'D BOE & LANDED TGB @ 4033, w SHOE @ 4001', & PAGE 2-7/8x9-5/8-36# ANCHOR @ 3873/RAN OILWELL 24"x11/"x10'x13' RHA ACID PMP ON 98 - 3/4"x30' & 33 - 7/8"x30' SUGGER RODS/ SEATED & SPACD PMP FILLED TGB w LSE WTR/POP THRU PORTABLE TSTR INTO BKR TK/ RDMO/IN TEST 17 HRS/NO BO, 166 BW/TGB 12#/CSEG 0#/11 SPMx72" LOS/FL 607, OP 3393/WELL OWES 343 BBLS OF LOAD WTR & ACID/PH 4/

24 HRS/NO BO, 226 BW/TGB 12#/CSEG 33#/11 SPMx72" LOS/FL 722, OP 3278/WELL OWES 117 BBLS OF LOAD WTR & ACID/PH 5/
1982

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL
HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/Ø BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL
HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/Ø BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-4 24 HRS/Ø BO, 195 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 755, OP 3246/pH 5/

3-5 24 HRS/Ø BO, 208 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 736, OP 3255/pH 5.5/

3-6 24 HRS/Ø BO, 212 BW/TBG 19/CSG 16/11 SPMx72" LOS/pH 5.5/

3-7 24 HRS/Ø BO, 208 BW/TBG 19/CSG 16/11 SPMx72" LOS/FL 736, OP 3255/pH 5.5/

3-8 24 HRS/Ø BO, 239 BW/TBG 38/CSG 16/11 SPMx72" LOS/FL 723, OP 3278/pH 7/

3-9 24 HRS/Ø BO, 234 BW/TBG 30/CSG 16/11 SPMx72" LOS/FL 745, OP 3256/pH 7/

3-10 24 HRS/Ø BO, 200 BW/TBG 19/CSG 16/11 SPMx72" LOS/FL 735, OP 3265/pH 7/

3-11 WELLTECK MRU/POH w RODS & PMP/UNLANDED TBG/INSTLD BOP/POH w TBG/MU
BKR 9-5/8" 36# FULLBORE PKR, RIH TO 4025, FILLED HOLE w 60 BBLS OF LSE PROD
WTR (RECVRD APPROX 25 BBLS CRUDE OIL FRM ANNUlus)/SET FB @ 4035, HAD COMMUNI-
CATION PUMPNG DN ANNUlus & DN TBG/RESET FB @ 4028.68', HAD COMM/RESET FB @
4026.68 PRESS UP ANNUlus @ 500 PSI HELD OK/RIH TO 4121, SET FB, PMPD DN TBG,
PRESS TO 700 PSI, HELD OK/PUI TSTNG 1' AT A TIME @ 4116' HAD COMM/REL FB PUH TO
3468/

3-12 MEASURED PULLING OUT OF HOLE, TBG TALLEYS OK/RIH w KILL STG/SHUT
WELL IN TILL AM 3-15-82/WAIT ON PROGRAM & APPROVAL/

3-15 BLED WELL DN/POH w KILL STG/TAGGED FILL @ 4233, CLND FINES TO 4237
(COULDNT GET DPR)/PBD 4243, PU TO 4232 TO SPOT SD/RU HALIB, PLUGGED BOTH Pmps
ON TRUCK w SD, REPLACEMENT TRK BROKE DN ON FREEWAY, PMP TRK ARIVD @ 3 PM/SPOTD
90 FT³ SILICA SD IN FOUR STGS FRM 4237-4030 (EST) TOP OF SD/PU TO 3022/SIFN/
DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLB #8-7
Sec.13,T4S,R13W

1982

3-16 BLED WELL DN/LOWER TBG, TAG SD @ 4040/POH, RAN SCHLUM DMP BAILER, TAG SD @ 4034/BHT 140°/POH, MX ½ SX HYDROMITE SET FOR 160°/RIH SET TOOL OFF @ 4034/POH, HYDROMITE SAT UP IN BAILER/RIH w 9-5/8" FB TO 3760/FILLED HOLE w 26 BBLS LSE WTR/SET FB, PRES TO 500 PSI ON CSG/EST BRK DN OF 2 BPM @ 550 PSI/ PMP 25 SX TIXOTROPIC CMT FOLOWD BY 75 SX CL "G" CMT w 2% CaCl₂ & 6/10 OF 1% HALAD 9, DISP w 154 CF LSE WTR, PRES TO 1400 PSI/WAIT 20 MIN, DISP 22 CF @ 1675 PSI/EST TOP OF CMT @ 3883/CLOSE WELL IN w 1500 PSI ON TBG/PMP 51 CF CMT OUT HOLES/

3-17 BLED WELL DN/(HAD 150 PSI, SHUT IN PRESS ON TBG)/REL FB PKR/POH/MU 4 - 4-3/4" OD DRL CLRS ON 8-3/4" BIT, RIH ON 118 JTS OF 2-7/8" TBG, TAGD TOC @ 3865/RIGGED UP POWER SWIVEL, DRLD OUT CMT TO 4020 LEAVNG 11' CMT ABOV WSO HOLES @ 4031/POH, LAYD DN 21 JTS 2-7/8" TBG/BIT @ 3694/SIFN/

3-18 BLED WELL DN/REMOVED BOE/LANDED TBG w BIT @ 3707/RIH w RODS/LD DN 7 - 3/4", 6 - 7/8"x30' SUCKER RODS/CLND LOCATN/RDMO/WOC BEFORE CLN OUT & LOGGING/ DROP FRM REPORT/

3-22 WELLTECH MIRU/BLED WELL DN/POH w RODS/UNLANDED TBG/INSTL BD/BOE/PICKED UP 11 JTS 2-7/8" TBG, RIH/DRDL OUT CMT FRM 4020-4025/BEGAN TSTNG TO 700 PSI EVERY 1' TO 4033, TSTS ALL OK/DRDL THRU CMT @ 4040/CLND OUT SD TO 4110/POH TO 3523/SIFN/

3-23 BLED WELL DN/(VAC ON TBG) LOWERD 8-3/4" BIT TO 4110/FILLED HOLE w 7 BBLS LSE WTR, CONTD CLEANING OUT SD FRM 4110-4237/POH/RAN 8-3/4 BIT ON 9-5/8" 36# BKR CSG SCRPR TO 4235, CIRC OUT FINE CMT TO 4237/POH/RIGGED UP SCHLUM RAN GAMMA RAY - CMT BOND LOG FRM 4200-3348/SIFN/

3-24 BLED WELL DN/LD DN 4-3/4" DC/MU 9-5/8" 36# BKR CIRC WASH TOOL w 2' CUP SPACING, RIH ON 2-7/8" TBG TO 4007, TSTD TOOL, BLANKD OFF @ 1000 PSI/ CONTD IN HOLE w TOOL TO 4121-4119, BLANKD OFF @ 1000 PSI/PU TO 4118-4116 & TSTD PERF'S EVERY 2' w AVG MAX BRK DN OF 500 PSI @ 15 FT³ PER MIN RATE & AVG FINAL PRESS OF 500 PSI @ 15 FT³ PER MIN RATE, THROUGHOUT PERFD INTERVL/FOLLOWING INTERVALS BLANKD OFF @ 1000 PSI, 4094-4092, 4086-4074, 4050-4048, 4046-4078/ POH, LD DN TOOL/RIH w KILL STG/SIFN/

3-25 BLED WELL DN/POH w KILL STG/RAN PROD TBG STG w PAGE TBG ANCHOR @ 3829, API T/L PMP SHOE @ 3957 & BTM OF MUD ANCHOR @ 3989.59/REMOVED BOE/LANDED TBG/RIH w OILWELL 3 TUBE 2½"x1-3/4"x25' PMP ON 97 - 3/4 & 32 - 7/8"x30' "EL" SUCKER RODS/SEATED & SPACED PMP/FILLED TBG w LSE PROD WTR/POP INTO BKR TD/ RDMO/WELL OWES 154 BBLS WTR/IN TST 19 HRS/BO, 207 BW/TBG 5#/CSG 0#/11 SPMx 72" LOS/FL 2636, OP 1322/(FLOWLINE CUT CONTAINED 1% MUD)/WELL PAID BK LOAD WTR, PLUS 53 BBLS FRM WELL)/
1982

3-26  10 HRS/Ø BO, 90 BW/TBG 5#/CSG 17#/11 SPMx72" LOS/WELL PMPD OFF @ 5:00 PM 3-26-82/SHUT WELL IN/FL 3956 @ PMP/FL @ 7:00 AM, 3-27-82 3602', OP 354'/

3-27  5 HRS/Ø BO, 28 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/

3-28  2 HRS/Ø BO, 14 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/

3-29  1½ HRS/Ø BO, 8 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN 3-30-82/FLUID RISE 20 HRS, 114'/DROP FRM REPORT/WELL TO BE SHUT IN 7 DAYS FOR BUILD UP/

5-3   14 HRS/98 BO, 60 BW/TBG 7#/CSG 19#/11 SPMx72" LOS/FL 3957 @ PMP/
Note: WELL HAS BEEN SHUT-IN FOR BUILD UP SINCE 3-29-82/FLUID LEVEL PRIOR TO PUTTING ON PROD, 1723', OP 2234'/

5-4   NO ACTIVITY/DROP FRM REPORT/

5-14  WELL SHUT-IN PENDING EVALUATION FOR STIMULATION PROGRAM/DROP FRM REPORT/

9-7   WELL TA'D 5-14-82/FINAL REPORT/
Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T 4 S, R 13 W, S.B., B. & M. Long Beach Field, in Los Angeles County, were witnessed on 2/26/82 by W.E. Brannon, Engineer, representative of the supervisor, was present from 1400 to 1600. There were also present J. Icardone.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4031' with a formation tester.

DECISION: APPROVED

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

WEB: csW

cc: Update
Blanket Bond
**Form OGDS (8/80)**

**DIVISION OF OIL AND GAS**

**WATER SHUTOFF TEST**

**Operator**: Sun Exploration & Production Co

**Well designation**: NWLBU 8-7  
**Sec. 13, T. 48, R. 13W, 3R B&M.**

**Field**: Long Beach, County Los Angeles

**N.W. corner** tested for water shutoff on 2-26-82. (Name) W. E. Branigan, representative of the supervisor, was present from 1400 to 1600. Also present were J. Icardone.

**Casing record of well**: 20" CEM 50", 13.5" CEM 1122", 9.5" CEM 4115", perf 4031/1456

The operations were performed for the purpose of D-1 - 9 5/8" - 4031

- [ ] The 9 5/8" shutoff at 4031' is approved.
- [ ] The seal between the _____" and _____" casings is approved.
- [ ] The operations are approved as indicating that all of the injection fluid is confined to the formations below _____" at this time.

**Hole size**: _____" fr. _____" to _____"; _____" to _____"; & _____" to _____".

**Casing**

<table>
<thead>
<tr>
<th>Size</th>
<th>Wt.</th>
<th>Top Date</th>
<th>Bottom Date</th>
<th>MO-Depth</th>
<th>Volume</th>
<th>Top of Fill Annulus</th>
<th>Casing</th>
<th>Sqd. Away</th>
<th>Final Press</th>
<th>Test psi/min.</th>
<th>Perfs.</th>
</tr>
</thead>
</table>

Depth or interval tested 4½" holes (2) 4031'.

The hole was open to 4243' for test.

**FORMATION TEST**

- **Packer(s)**: 3459 & Tail 9888, Bean size 3/4", Cushion NONE
- **IHP**: 123  
- **IPF**: 41  
- **FFP**: 42  
- **PHP**: 1704

**Blow**: medium blow for 10 min., light blow for 20 min. Then dead remainder of test.

Open for test ONE Hr. 0 min. Fluid entry

**BAILING TEST**

The hole fluid was bailed to _____', at _____ on _____.

The hole fluid was found at _____', at _____ on _____.

**PRODUCTION TEST**

- **Gauge/meter reading** on 19, at pump depth ' Engr.
- **Gauge/meter reading** on 19, at Engr.
- **Fluid level** surveyed on 19, reviewed (witnessed) by

**Total fluid produced, Bbls.**

Rate: _____ B/D oil, _____ B/D water, _____% water cut

**INJECTION SURVEY**

- **RA/Spinner/Temperature survey run at** B/D & _____ psi on 19, fluid confined below _____' (Packer depth _____')
DEFICIENCIES—TO BE CORRECTED  NONE

DEFICIENCIES—CORRECTED  NONE

CONTRACTOR  California Production Service, Inc.
L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T4S, R 13W S.B. & M. Long Beach Field, in Los Angeles County, were witnessed on 2-25-82. E. Santiago, Engineer, representative of the supervisor, was present from 1030 to 1130. There were also present L. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715'. perf 4356' WSO & 4693' WSO; 7' cem 4626'-5847'. perf @ int 5724' - 5777' & 4368' - 4412'. TD 5847'. Plugged w/cem 5777'-5583' & 4423'-4242'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of plugging back to abandon lower zone.

DECISION: APPROVED.

NOTE:
DEFICIENCIES TO BE CORRECTED
NONE
DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

ES:da
cc: Update
Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor
By V. T. CARDOZA
Deputy Supervisor
The plugging/cementing operations as witnessed and reported are approved.  

The location and hardness of the cement plug @ is approved.

Hole size: _______" fr. _______ to _______ ; _______" to _______ & _______" to _______.

Casing | Cemented | Top of Fill | Squeezed | Final

Casing/tubing recovered: _______" shot/cut at _______ ; _______ ; _______ pulled fr. _______ ;

_______" shot/cut at _______ ; _______ ; _______ pulled fr. _______.

Junk (in hole):

Hole fluid (bailed to) at _______. Witnessed by _______.

Mudding | Date | Bbls. | Displaced | Poured | Fill | Engr.

Cement Plugs | Placing | Placing Witnessed | Top Witnessed
Date | Sx. | MO & Depth | Time | Engr. | Depth | Wt/Sample | Date & Time | Engr.
02/18/82 | 50 cf | Tub @ 5777 | 1900 | 64-1 | 55.82 | 12,000# | 2/3/82 0720 | W. Stark
02/25/82 | 65 cf | Tub @ 4452 | 1030 | E. Santiago | 4247 | 10000# | 2/26/82 0720 | W. Stark
DEFICIENCIES—TO BE CORRECTED

NONE

DEFICIENCIES—CORRECTED

NONE

CONTRACTOR  CALIFORNIA PRODUCTION SERVICE, INC.
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
March 3, 1982

Your proposal to Rework well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.R. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-22-82, received 2-23-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To witness a test of the effectiveness of the 9-5/8" shut-off at 4030'.
   c. To witness the location and hardness of the cement plug at 4250'.

RM:da

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDIN, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLB #6-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5847' PBTD 5583'

2. Complete casing record, including plugs and perforations:
   13 3/8", 54.5# CSG 0-1122'
   9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
   7", 26# CSG 4626-5847' (1.607 GALLONS/FT)
   TD 5847'; PBTD 5583'
   PERFS: 4-1/2" JHPF FROM 4368-4376' & 4383-4412'
   WSO @ 4356'
   2 7/8", 6.5# TBG 0-4393' (.2431 GALLONS/FT)

3. Present producing zone name. BROWN "K" Zone in which well is to be recompleted BROWN "T"

4. Present zone pressure 1150 PSI New zone pressure 1150 PSI

5. Last produced 2/16/82 (Oil, B/D) 0 (Water, B/D) 11 (Gas, Mcf/D)
   or
   6. Last injected (Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

1. MIHU
2. SPOT CMT PLUG FROM 4423-4250': DOG TO WITNESS AND APPROVE
3. SHOOT WSO @ 4031. DOG TO WITNESS.
4. SQUEEZE CMT W/50 SX IF REQD. RE SHOOT WSO @ 4030.
5. PERFORATE FROM 4118-4041', 4087-4080', AND 4068-4038' W/4-1/2" JHPF
6. ACIDIZE W/1000 GAL 15% HCL AND 3000 GAL 12% HCL 3% HF ACID
7. RETURN WELL TO PRODUCTION.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W RYE CANYON ROAD
       VALENCIA CALIFORNIA 91355-5060
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION

Type of Organization CORPORATION
(Corporation, Partnership, Individual, etc.)

OG107 (8-75--GSRI--15M)
L. R. Carroll, Jr., Agent  
SUN EXPLORATION & PRODUCTION CO.  
P. O. Box 55060  
Valencia, CA  91355  

Long Beach  
April 23, 1982  
Calif.  

Your operations at well NWLB 8-7, API No. 037-22512, Sec. 13, T.4S, R.13W, S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-4-82. G. W. Stark, Engineer, representative of the supervisor, was present from 12:50 to 13:30. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4356', WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int 5724'-5777'. TD 5847'. Plugged w/cem 5777'-5583'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4356' with a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS: da

cc: Update

Blanket Bond

M. G. Mefferd
State Oil and Gas Supervisor
By
Deputy Superintendent
DIVISION OF OIL AND GAS
WATER SHUTOFF TEST

Operator: Sun Oil Company

Well designation: WNLBU 8-7
Sec. 13, T. 4S, R. 13W, S8 B. & M.

Field: Long Beach, County: Los Angeles was tested for water shutoff on 2-4-92. (Name) C. J. Stark, representative of the supervisor, was present from 12:50 to 13:30. Also present were J. Incardone, P. F.

Casing record of well: 20' cement 50; 138' cement 122; 938' cement 147 1/2; perf 4356'; 4150'

The operations were performed for the purpose of ( ) 4356'

- The 958' shutoff at 4356' is approved.
- The seal between the _____' and _____' casings is approved.
- The operations are approved as indicating that all of the injection fluid is confined to the formations below ______' at this time.

Hole size: _____' fr. _____' to _____'; _____' to _____'; & _____' to _____'

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Sqd. Away</th>
<th>Final Press</th>
<th>Test psi/min Perfs.</th>
</tr>
</thead>
</table>

Depth or interval tested 4 - 7 1/2 holes 84356'

The hole was open to ______' for test.

FORMATION TEST:

Packer(s) 4298 & _____ Tail 147 1/2 Beam size 3/4' Cushion O
IHP 1850 FPP 55 FHP 1851
Blow down light decreasing to dead in 14 min.
Open for test 1 Hr. 0 min. Fluid entry 70' hole fluid

BAILING TEST:

The hole fluid was bailed to _____', at _____ on 19.

The hole fluid was found at _____', at _____ on 19.

PRODUCTION TEST:

Gauge/meter reading _______ on 19, at _______ pump depth ' Engr.
Gauge/meter reading _______ on 19, at _______ Engr.
Fluid level _______ surveyed on 19, reviewed (witnessed) by
Total fluid produced, Bbls. _______ Net oil _______ Water _______
Rate: _______ B/D oil, _______ B/D water, _______ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _______ B/D & _______ psi on 19,
fluid confined below _____' (Packer depth _______).
Deficiencies Corrected
None

Deficiencies to be Corrected
None

Contractor: Well Tech, Inc.
L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, Calif.
April 23, 1982

Your operations at well NWLB7U 8-7, API No. 037-22512, Sec. 13, T.4S, R.13W, S.B.B.M. Long Beach Field, in Los Angeles County, were witnessed on 2-3-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1800 to 1830. There were also present D. Wang, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715'; perf 4693' WSO; 7" cem 4626'-5847', perf @ intervals 5724'-5777', TD 5847'.

The operations were performed for the purpose of inspecting the blowout prevention equipment and installation.

DECISION: APPROVED.

NOTE:
DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor

Y. Y. HADDON
**DIVISION OF OIL AND GAS**

**BLOWOUT PREVENTION EQUIPMENT MEMO**

**Oper** or **SUN Oil Company**

**Well** NW 46-88-7

**Field** Long Beach

**County** LA

**VISITS:**
1st 2-3-82 G W Stark
2nd

**Time**
1200 to 1830

**Operator's Rep.** D. Wang
**Title** DF

**Casing record of well:**
- 20" Casing 50 ft
- 13 1/2" Casing 74 ft
- 9 5/8" Casing 474 ft
- perf 4626'5847' perf @ intervals 5724'5777' TD 5847'

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation.

**DECISION:** The blowout prevention equipment and installation are approved.

**Proposed Well Ops:**
- Per load zone
- **MPSP:** psi
- **BOPE CLASS:** 2m

**Hole size:**
- 1/2 fr. 4" to 2000', 2000' to 6000' to

**Casing Anchor String Only**

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight(s)</th>
<th>Grade(s)</th>
<th>Shoe at</th>
<th>CP at</th>
</tr>
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</table>

**Cement Details**

<table>
<thead>
<tr>
<th>BOP STACK</th>
<th>a</th>
<th>b</th>
<th>a/b</th>
<th>TEST DATA</th>
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</thead>
<tbody>
<tr>
<td>API Symb.</td>
<td>Rm</td>
<td>Ram</td>
<td>Sz.</td>
<td>Mfr.</td>
</tr>
<tr>
<td>-----------</td>
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<td>-----</td>
<td>------</td>
</tr>
</tbody>
</table>

**ACTUATING SYSTEM**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>gal. psi.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>gal. psi.</td>
<td></td>
</tr>
</tbody>
</table>

**CONTROL STATIONS**

- Mfr. at accum. unit
- Remote at Driller's stn.
- Other:

**EMERG. BACKUP SYST.**

- Press. Wkg. Fl.
- N2 Cyl No: Tpe: 1 gal
- Other:

**Hand wheels.**

**AUXILIARY EQUIPMENT**

- Fill-Up Line
- Kill Line
- Control Valve(s)
- Check Valve(s)
- Auxil. Pump Connec.
- Choke Line
- Control Valve(s)
- Pressure Gauge
- Adjustable Choke(s)
- Bleed Line
- Upper Kelly Cock
- Lower Kelly Cock
- Standpipe Valve
- Standpipe Pressure Ga.
- Pipe Safety Valve
- Internal Preventer

**HOLE FLUID**

**MONITORING EQUIPMENT**

<table>
<thead>
<tr>
<th>Alarm</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>Aud. Vis. A</td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td>B</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td>C</td>
</tr>
<tr>
<td>Pit Level Recorder</td>
<td></td>
</tr>
<tr>
<td>Flow Sensor</td>
<td></td>
</tr>
<tr>
<td>Mud Totalizer</td>
<td></td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**Hole Fluid Type**

<table>
<thead>
<tr>
<th>Weight</th>
<th>Storage-Pits</th>
</tr>
</thead>
</table>

**REMARKS:**

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OGD 9 (10/80/3M)
DEFICIENCIES—TO BE CORRECTED

none

DEFICIENCIES—CORRECTED

none

CONTRACTOR  Well Tech, Inc.
REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
February 17, 1982

Your proposal to Rework well NWLBU 8-7,
A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M.,
Long Beach field, Northwest Extension area, Brown pool,
Los Angeles County, dated 2-3-82, received 2-4-82 has been examined in conjunction with records
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:
1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements,
or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before
making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To witness the location and hardness of the cement plug at 5620'.

RM: da
cc: Update
Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDIN, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.
Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLB UNIT #8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5837'
2. Complete casing record, including plugs and perforations:
   13 3/8", 54.5# CSG 0-1122'
   9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
   7", 26# CSG 4626-5847' (1.607 GALLONS/FT)
   T.D. 5847'; PBTD 5837'
   PERFS: 8- .33" JHPF FROM 5764' - 5777'
   4- 1/2" JHPF FROM 5724' - 5736' AND 5738' - 5756'

3. Present producing zone name BROWN - "Y" Zone in which well is to be recompleted BROWN - "K"
4. Present zone pressure. 1200 PSI

5. Last produced
   1/26/82 (Date)
   0 (Oil, B/D)
   20 (Water, B/D)
   0 (Gas, Mcf/D)
   or
   (Date)
   (Water, B/D)
   (Gas, Mcf)
   (Surface pressure, psig.)

6. Last injected
   (Date)
   (Water, B/D)
   (Gas, Mcf)

The proposed work is as follows:

1. MIRU
2. SPOT CMT PLUG FROM 5777' - 5620'. DOG TO WITNESS PLACEMENT AND LOCATION OF PLUG.
3. PERFORATE WELL FROM 4383' - 4411' AND FROM 4368' - 4376' W/4 1/2" JHPF.
4. ACIDIZE AS FOLLOWS: 1800 GALLONS 15% HCR, 1800 GALLONS 12% HCI - 3% HF, 25 BBL 2% AM-CL WATER.
5. RIH W/RODS, TBG, AND ACID PUMP. RTP.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address: 25322 W RYE CANYON ROAD
VALENCIA CALIFORNIA 91355-0560
Telephone Number: 805/257-6200
OG107 (B-75-CSRI-15M)

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION
CORPORATION

Name of Organization: CORPORATION
(Corporation, Partnership, Individual, etc.)

Date: 2/3/82
L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach        Calif.        October 21, 1981

Your operations at well NULBU 8-7, API No. 037-22512
Sec. 13, T4S, R13W, S.B. B. & M. Long Beach Field, in Los Angeles County,
were witnessed on 9-21-81. R. Manuel, Engineer, representative of
the supervisor, was present from 1145 to 1215. There were also present Don Rodgers, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf
4693' WSO, TD 4906' (Drilling).

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4693' with
a formation tester.

DECISION: APPROVED.

NOTE: DEFIENCIES TO BE CORRECTED
NONE

DEFIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

RM: dh

cc: Update

D. Daniels (Sun) 2-2-82

7" cem 4626'-5847', perf's @ int 5124'-5777'
ok to plug from 5777' to 5620'. will send
Report on proposed operations
immediately.

M. G. Mefferd
State Oil and Gas Supervisor

R. A. Ybarra
Deputy Supervisor
Operator: Sun Oil Company

Well designation: NW 8-7 Sec. 13, T. 4 S, R. 13 W, SB B.&M.

Field: Long Beach, County: L.A. was tested for water shutoff on 9-21-81. (Name) R. Manuel, representative of the supervisor, was present from 11:45 to 12:15. Also present were Doc Rodgers - D.F.

Casing record of well: 20" cement to 1122'; 7 5/8" cement 4715', perf 4693' WSP. TD 4926' (drilling).

The operations were performed for the purpose of (D-1) 9 5/8" @ 4693'.

☐ The 9 5/8" shutoff at 4693' is approved.
☐ The seal between the _______" and _______" casings is approved.
☐ The operations are approved as indicating that all of the injection fluid is confined to the formations below _______" at this time.

Hole size: 12 1/4" fr. 1122' to 4725'; 8 7/8" to 4906'; 6 _______" to _______

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<td>9 5/8&quot;</td>
<td>36</td>
<td>A 4715' 9-21-81 thru shoe</td>
<td>1276', Surf 4487', 1000</td>
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Depth or interval tested 4 - 1/2' holes @ 4693'
The hole was open to 4726' for test.

FORMATION TEST:

Packer(s) | Tail | Bean size | " Cushion |
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IHP | IPF | FFP | FHP |
|    |     |     |     |
| 1200 | 57  | 57  | 2190

 Blow throughout Test
Open for test _______ Hr. _______ min. Fluid entry _______ mud

BAILING TEST:
The hole fluid was bailed to _______", at _______ on _______ 19.
The hole fluid was found at _______", at _______ on _______ 19.

PRODUCTION TEST:

Gauge/meter reading _______ on _______ 19, at _______ pump depth _______ Engr.
Gauge/meter reading _______ on _______ 19, at _______ Engr.

Fluid level _______ surveyed on _______ 19, reviewed (witnessed) by _______.

Total fluid produced, Bbls. Net oil Water

Rate: _______ B/D oil, _______ B/D water, _______ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _______ B/D & _______ psi on _______ 19,
fluid confined below _______" (Packer depth _______"")
DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

None

CONTRACTOR
Atlantic Oil Co.
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<tr>
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<th>DRIFT ANGLE</th>
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**UNITED DIRECTIONAL SERVICES, INC.**
SIGNAL HILL, CALIFORNIA
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CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD