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 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 1913, as amended, notice is hereby given that it is our intention to commence the work of deepening, Redrilling, Plugging, or Altering well No. Oil Operators #1 (Enter name of oil well) 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:

4155' deep
13-3/8" C 757'
8-5/8" C 4105' O.K.
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 Co. of Los Angeles

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., as herewith enumerated by well numbers.

Logs

History

Core record: "L.A. Dept. of Oil Operators, Inc." 11/1/37

Subsequent work

R. D. BUSH, State Oil and Gas Supervisor

Duplicate

Form 127, 467.19 3-37 314
**History of Oil or Gas Well**

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

Well No.: OIL OPERATORS NO. 1, Sec. 13, T. 45, 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 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.

**1937**  
**CASING RECORD AT START OF WORK.**

**NEW WELL**

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-30</td>
<td>187</td>
<td>Spudded in and drilled with 7&quot; rotary bit.</td>
</tr>
<tr>
<td>10-3</td>
<td>757</td>
<td>Drilled with 17&quot; bit to 757'1, Cemented new 13-5/8&quot; 45.97# National seamless slipjoint casing at 757' with 350 sacks Velco cement. Cementing operation approved by Pierce of D.O.C.</td>
</tr>
<tr>
<td>10-13</td>
<td>4110</td>
<td>Drilled and cored to 4063'. Ran Schlumberger survey. Cored ahead to 4110'.</td>
</tr>
<tr>
<td>10-14</td>
<td></td>
<td>Enlarged hole to 4106' with 12-1/4&quot; reamer. Cemented 8-5/8&quot; - 50# Grade &quot;C&quot; (510' of Grade D on bottom) 8 thread rounded seamless casing at 4106', with 400 sacks Victor Oil well cement.</td>
</tr>
<tr>
<td>10-20</td>
<td></td>
<td>Found top of cement at 4061'. Cleaned out cement and plugs to 4110'. WSO test on 8-5/8&quot; casing at 4106', witnessed and approved by Murray-Aaron of D.O.C. Directional survey of hole made by Alexander Anderson.</td>
</tr>
<tr>
<td>10-21</td>
<td>4156</td>
<td>Cored ahead to 4155' with 7-5/8 barrel.</td>
</tr>
<tr>
<td>10-22</td>
<td></td>
<td>Landed 68' of 8-5/8&quot; 26# Grade &quot;C&quot; 10 thread casing at 4156' including 47' of 120 Mesh (16-2-6-) Kobe perforated on bottom.</td>
</tr>
<tr>
<td>10-23</td>
<td></td>
<td>Landed 3&quot; upset tubing at 4077'. Installed Xmas tree. Swabbed fluid to 2000'. Well started. Flowing by heads. OP 225#.</td>
</tr>
</tbody>
</table>
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 bailng.
# 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.**: 25  
**R.**: 1 SW  
**B. & M.**: SB

**Location**: 665 S'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 110' N'ly at right angles.

**Elevation**: 56.99

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**: [Signature]

**Title**: DISTRICT ENGINEER

<table>
<thead>
<tr>
<th>(Engineer or Geologist)</th>
<th>(Superintendent)</th>
<th>(President, Secretary or Agent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Commenced drilling**: September 30, 1937  
**Completed drilling**: October 23, 1937  
**Drilling tools**: Rotary

**Total depth**: 4165  
**Plugged depth**:

**Junk**:

**GEOLOGICAL MARKERS**

<table>
<thead>
<tr>
<th>Depth (ft.)</th>
<th>Top of Wilbur Shale</th>
<th>Top Alamitos Shale</th>
<th>Top Brown Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>3647</td>
<td></td>
<td>5876</td>
<td>4100</td>
</tr>
</tbody>
</table>

**Commenced producing**: October 24, 1937

**Clean Oil**:

<table>
<thead>
<tr>
<th>Clean Oil bbl. per day</th>
<th>Gravity Clean Oil</th>
<th>Per Cent Water including emulsion</th>
<th>Gas Mcl. per day</th>
<th>Tubing Pressure</th>
<th>Casing Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>365</td>
<td>22.9</td>
<td>1.8</td>
<td>121</td>
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<td>325</td>
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<tr>
<td>461</td>
<td>23.4</td>
<td>1.2</td>
<td>221</td>
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**Production after 90 days**

**Casing Record (Present Hole)**

<table>
<thead>
<tr>
<th>Size of Casing (A. F. L.)</th>
<th>Depth of Shoe</th>
<th>Top of Casing</th>
<th>Weight of Casing</th>
<th>New or Second Head</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>15-5/8</td>
<td>757</td>
<td>Surface</td>
<td>45.97</td>
<td>New</td>
<td>gms1s</td>
<td>C</td>
<td>17&quot;</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>6-5/8</td>
<td>4105</td>
<td></td>
<td>34</td>
<td></td>
<td></td>
<td>C &amp; D</td>
<td>12&quot;</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>6-5/8</td>
<td>4165</td>
<td>4067</td>
<td>26</td>
<td></td>
<td></td>
<td>C</td>
<td>7.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</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>4105</td>
<td>4155</td>
<td>120 Mesh</td>
<td>16</td>
<td>6&quot;</td>
<td>Kobe*</td>
</tr>
</tbody>
</table>

**Electrical Log Depths**: Schlumberger from 757 - 4045 feet (Attach Copy of Log)
## 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>
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<tbody>
<tr>
<td>0</td>
<td>40</td>
<td></td>
<td></td>
<td>Surface clay</td>
</tr>
<tr>
<td>40</td>
<td>254</td>
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<td>Clay and sand</td>
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<tr>
<td>254</td>
<td>592</td>
<td></td>
<td></td>
<td>Sand and boulders</td>
</tr>
<tr>
<td>592</td>
<td>730</td>
<td></td>
<td></td>
<td>Sand</td>
</tr>
<tr>
<td>730</td>
<td>984</td>
<td></td>
<td></td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>984</td>
<td>990</td>
<td></td>
<td></td>
<td>Hard sand</td>
</tr>
<tr>
<td>990</td>
<td>1349</td>
<td></td>
<td></td>
<td>Shale and streaks of hard sand</td>
</tr>
<tr>
<td>1349</td>
<td>3083</td>
<td></td>
<td></td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3083</td>
<td>3087</td>
<td></td>
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<td>Hard sand</td>
</tr>
<tr>
<td>3087</td>
<td>3106</td>
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<td>Shale and streaks of sand</td>
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<td>3106</td>
<td>3108</td>
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<td>Shell</td>
</tr>
<tr>
<td>3108</td>
<td>3251</td>
<td></td>
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<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3251</td>
<td>3253</td>
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<td></td>
<td>Hard sand</td>
</tr>
<tr>
<td>3253</td>
<td>3398</td>
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<td>Shale and streaks of sand</td>
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<tr>
<td>3398</td>
<td>3399</td>
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<td>Hard shell</td>
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<tr>
<td>3399</td>
<td>3442</td>
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<td>3442</td>
<td>3445</td>
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<td>Shell</td>
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<td>Sand</td>
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<td>Shell</td>
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<td>Hard sand</td>
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<td>3487</td>
<td>3498</td>
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<td></td>
<td>Sand and shale</td>
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<tr>
<td>3498</td>
<td>3500</td>
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<td>Hard sand</td>
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<td>Shell</td>
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<td>Medium hard sand and shale</td>
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<td>3930</td>
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<td>Shale</td>
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<td>Sand (See core record)</td>
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<td>Sand</td>
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<td>Shell</td>
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<td>4053</td>
<td>4155</td>
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<td>Shale and sand</td>
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<tr>
<td>Date</td>
<td>Well</td>
<td>Depth 1</td>
<td>Depth 2</td>
<td>Depth 3</td>
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<td>1</td>
<td>7-5/8</td>
<td>4010</td>
<td>4028</td>
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<td>4028</td>
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<tr>
<td>10-13</td>
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<td>7-5/8</td>
<td>4040</td>
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<td>4</td>
<td>7-5/8</td>
<td>4053</td>
<td>4076</td>
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</tbody>
</table>

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
- Firm soft medium gray sand

Drilled.

- Firm soft medium gray sand. No odor
- Hard brown silty shale, streaks and partings of fine gray sand. Dip of 20°
- Firm soft medium gray sand
- Hard brown shale
- Firm soft medium gray sand
- Hard brown shale. Dip of 29°
- Firm soft medium to coarse gray sand
- Hard dark brown silty shale. Partings have dip of 22° to 28°. Streak of gray sand
<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Zone</th>
<th>Age</th>
<th>Color</th>
<th>Texture</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>10-14</td>
<td>5</td>
<td>7-5/6</td>
<td>4073</td>
<td>4092</td>
<td>17.1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2</td>
<td>Hard dark brown shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.7</td>
<td>Firm soft medium gray sand</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>2.0</td>
<td>Hard sandy brown shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.6</td>
<td>Firm soft medium to coarse gray sand</td>
</tr>
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<td></td>
<td></td>
<td>1.9</td>
<td>Hard dark brown shale</td>
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<td></td>
<td>0.1</td>
<td>Firm soft medium gray sand</td>
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<tr>
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<td>4.0</td>
<td>Hard brownish black shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.6</td>
<td>Firm soft medium argillaceous dark brown gray sand. Slightly oil stain with fair odor</td>
</tr>
<tr>
<td>10-14</td>
<td>6</td>
<td>7-5/6</td>
<td>4092</td>
<td>4110</td>
<td>18.5</td>
<td>0.7</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>0.4</td>
<td>Hard brownish black shale. Laminated with partings of gray sand 0.6 from top. Streak of brown oil sand on bottom. Dip of 22°</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
<td>Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.6</td>
<td>Hard, brownish black shale.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>0.1</td>
<td>Firm, soft, fine to medium dark brown oil sand.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>0.2</td>
<td>Hard, brownish black shale.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>0.6</td>
<td>Fine to medium dark brown oil sand.</td>
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<tr>
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<td></td>
<td></td>
<td>0.5</td>
<td>Hard, brownish black shale.</td>
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<tr>
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<td></td>
<td></td>
<td>0.1</td>
<td>Hard, coarse, slightly calcareous gray sand.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.3</td>
<td>Hard, brownish black shale.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.1</td>
<td>Firm, soft, fine dark gray sand. No odor and no cut.</td>
</tr>
<tr>
<td>9.6</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard, black to brownish shale.</td>
</tr>
<tr>
<td>0.5</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm, soft, fine dark brown oil sand. Sreaks of mud.</td>
</tr>
<tr>
<td>0.6</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard brownish black shale. Firm soft fine to medium dark brown oil sand. Strong odor.</td>
</tr>
<tr>
<td>0.9</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard, brownish black massive shale.</td>
</tr>
<tr>
<td>13.0</td>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
<td>0.2</td>
<td>Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Good flash.</td>
</tr>
<tr>
<td>0.4</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard, brownish black shale, partings of fine, brown oil sand.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm, soft, fine to medium dark brown oil sand — strong odor.</td>
</tr>
<tr>
<td>Well</td>
<td>Zone</td>
<td>Depth</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-21</td>
<td>7</td>
<td>4110-4125</td>
<td>Soil, soft, loamy, fine dark brown oil sand. Good odor and dark amber cut. Core has strong flash test.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4140-4155</td>
<td>Soil, 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>
<td></td>
</tr>
<tr>
<td>0-3</td>
<td></td>
<td>4125</td>
<td>Shale, 4.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4</td>
<td></td>
<td>4140</td>
<td>Shale, 4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td></td>
<td>4155</td>
<td>Shale, 2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- 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.
- Soft, loose, grayish brown washed oil sand.
- Hard, brownish black shale.
- Firm, soft, fine to medium dark brown oil sand.
- Hard, brownish black shale.
- Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Streak of shale 3.0 from top.
- Hard, dark, brown shale. Streak of fine brown oil sand.
- Firm, soft, fine, dark brown oil sand.
- Strong odor.
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 Crow 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.

[Signatures]

CC - Mr. R. D. Bush (2)
Long Beach

[Signatures]
Report on Test of Water Shut-off

No. T 1-33300

Los Angeles, Calif. November 5, 1937

Mr. Ed. Jusser, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS, INC.," Sec. 13, T. 4 S., R.13 W., S. E. B. & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on October 20, 1937, Mr. E. E. 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. E. Kewish, Drilling Foreman, and S. Hagedstad and R. Rampton, 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. lb. casing cemented in shale formation at 4105 ft. with 400 sacks Victor cement by casing method. Water string was landed in 12¼' 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 time and date oil bailed to xx ft., drilling fluid bailed to xx ft. to xx ft. At time and date top of oil found at xx ft., top of fluid found at xx ft.

MR. HAGESTAD 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 4086'.

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, gassy 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

cc: H. E. Winter
Long Beach
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33264

Los Angeles, Calif. October 29, 1937

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

Dear Sir:

Agent for UNION OIL COMPANY OF CALIFORNIA

Operations at your well No. 1 Sec. 13, T.13S., R. 13W., S. E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by C. 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" com. 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 12 1/4" 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>4040'  -- gray sand</td>
</tr>
<tr>
<td>4040'</td>
<td>4041'  -- shell</td>
</tr>
<tr>
<td>4058'</td>
<td>4071'  -- gray sand</td>
</tr>
<tr>
<td>4071'</td>
<td>4079'  -- shale</td>
</tr>
<tr>
<td>4079'</td>
<td>4092'  -- gray sand</td>
</tr>
<tr>
<td>4092'</td>
<td>4106'  -- shale</td>
</tr>
<tr>
<td>4106'</td>
<td>4110'  -- 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 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

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, Inc." 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.

CC - Mr. E. D. Bush (2)  
Long Beach
Mr. R. 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. 2 OIL OPERATORS, Sec. 13, T. 48, R. 13W, S. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Pelosi, representative of the supervisor, on Oct. 3, 1937. There was also present R. Hampton, Engineer, and G. Bussert, 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 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
CP: G

R. D. BUSH
State Oil and Gas Supervisor

By E. Keckarn, Deputy
Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS, INC. 1"
Section 15, T. 46 S., R. 45 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. -60')." We estimate that the first productive oil or gas sand should be encountered at a depth of about 3500 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>13-3/8&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>8-5/8&quot; Perf. liner 28</td>
<td>New</td>
<td>4150</td>
<td>Landed</td>
<td></td>
</tr>
</tbody>
</table>

This 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
WJC: G

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy
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. HUGURNIN
Deputy State Oil and Gas Supervisor

Los Angeles, Calif.

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 555' 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 Bel Mar Ave., thence 100' N-W'ly at right angles.

The elevation of the derrick floor above sea level is feet.

Will be determined later (Approx. 565')

56, 84' (Correction letter 10-8-37)

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&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.

Telephone number Whittier 426-87

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

By Henry E. Winters
District Engineer.
SCHLUMBERGER ELECTRICAL LOGS

COMPANY: WELCH CO.
DATE: 12/2/37

FIELD: Long Reach
LOCATION: 

WELL: C11-punters 2
ELEVATION: 

Casing shoe depth: 
Driller 755 ft. Started run 10:00 a.m.
Schlumberger 755 ft. Finished run 12:45 p.m.

Bottom Depth: 
Driller 7956 ft. Time well occupied by outfit 2 1/2 h.

Max. depth reached by lower elect 7957 ft. Time waiting at well none h.

Max. footage measured (p or S.P.) 7957 ft. Mileage incurred by run 15 M.

Footage missed 8 ft. Total time incurred by run 23 h.

MUD CHARACTERISTICS

NATURE: 
VISCOSITY: 
LEVEL: 
DENSITY: 75
RESISTIVITY: ohms m'

DIAMETER OF HOLE

12.1

REMARKS

8 - 2

Witnessed By: 

Observers: 

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG</th>
<th>ohms/m</th>
<th>POROSITY LOG</th>
<th>millivolts</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
<td></td>
<td>30</td>
<td>---150 v.</td>
</tr>
</tbody>
</table>
### Casing Shoe Depth

<table>
<thead>
<tr>
<th>Depth</th>
<th>Driller</th>
<th>Schlumberger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started run</td>
<td>4016 ft.</td>
<td>ft.</td>
</tr>
<tr>
<td>Finished run</td>
<td>4016 ft.</td>
<td>ft.</td>
</tr>
</tbody>
</table>

### Bottom Depth

<table>
<thead>
<tr>
<th>Depth</th>
<th>Driller</th>
<th>Schlumberger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time well occupied by outfit</td>
<td>4105 ft.</td>
<td>2 h.</td>
</tr>
<tr>
<td>Time waiting at well</td>
<td>4104 ft.</td>
<td>h.</td>
</tr>
</tbody>
</table>

### Max. Depth Reached by Lower Elect

<table>
<thead>
<tr>
<th>Depth</th>
<th>Driller</th>
<th>Schlumberger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mileage incurred by run</td>
<td>72 ft.</td>
<td>1 M.</td>
</tr>
</tbody>
</table>

### Max. Footage Measured (p or S.P.)

<table>
<thead>
<tr>
<th>Footage</th>
<th>Driller</th>
<th>Schlumberger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time incurred by run</td>
<td>1 ft.</td>
<td>3 h.</td>
</tr>
</tbody>
</table>

### MUD CHARACTERISTICS

- **Nature**: Natural
- **Viscosity**: No sample
- **Density**: 72
- **Resistivity**: No sample

### DIAMETER OF HOLE

7-5/8" 275

### REMARKS

Device: 20"
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 10:00 a.m.
Schlumberger ft. Finished run 12:45 a.m.

Bottom Depth:  
Driller: 3859 ft. Time well occupied by outfit 2 h.

Max. depth reached by lower elect 3857 ft. Time waiting at well none

Max. footage measured (p or S.P.) 3086 ft. Mileage incurred by run 15 M.

Footage missed 2 ft. Total time incurred by run 32 h.

MUD CHARACTERISTICS

NATURE: Natural VISCOSITY: 
DENSITY: 75 RESISTIVITY: 5.8

DIAMETER OF HOLE

12 1/2" 

REMARKS

Device: 20" 

Witnessed By: Mr. Winter

OBSERVERS: F. PELICUSHK

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG ohms. m(^{-1})</th>
<th>POROSITY LOG millivolts</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
<td>30</td>
</tr>
</tbody>
</table>

150 mV.
**RUN** | 1-D | 2-D | 3 | 4 | 5
--- | --- | --- | --- | --- | ---
**Date** | 10-27-41 | 10-29-41 |  |  |  
**Csg. shoe** | 4016' | 4016' |  |  |  
**Total depth** | 5235' | 5480' |  |  |  
**Depth rchd.** | 5235' | 5477' |  |  |  
**Ft. Meas.** | 1129' | 242' |  |  |  
**Mud Nat.** | Natural | Chemical |  |  |  
**Dens.** | 76# | 79# |  |  |  
**Visc.** | 40 | 40 |  |  |  
**Res.** | 6.3 @ 80°F 5.5 @ 85°F | 160°F 175°F |  |  |  
**Max. Temp.** | Top Table | Top Table |  |  |  
**Meas. from** | 2000' | 1800' |  |  |  
**Tension** | 2 hrs. | 1 hr. |  |  |  
**Rig. Time** | 10 | 10 |  |  |  
**Mileage** | V. Fant | W. Dale |  |  |  
**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>
<th>SELF-POTENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td>100 millivolts</td>
</tr>
</tbody>
</table>
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 Attatchment

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

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>Map and book</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></td>
<td>7/11/07</td>
</tr>
<tr>
<td>Well records</td>
<td></td>
<td></td>
<td>EDP files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric logs</td>
<td></td>
<td></td>
<td>Computer Files</td>
<td></td>
<td>7/11/07</td>
</tr>
<tr>
<td>Production reports</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

OGD156 (5/98)
RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES  

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 T.C. Manuel  
For R. K. Baker, Deputy Supervisor  

DEC:df  

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
### RECORDS RECEIVED

**Company:** Pacific Energy Resource  
**Well No.:**  
**API No.:**  
**Sec.:** 13  
**T.:**  4S  
**R.:**  1310  
**County:**  
**Field:** Wilmington

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>11-27-96</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>
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<tbody>
<tr>
<td>Producing - Oil</td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Idle - Oil</td>
<td>Waterflood</td>
</tr>
<tr>
<td>Abandoned - Oil</td>
<td>Steamflood</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>Gas Storage</td>
<td>Waterflood Source</td>
</tr>
<tr>
<td>DATE</td>
<td>10-21-96</td>
</tr>
<tr>
<td>RECOMPLETED</td>
<td>&quot;E&quot; well Yes No</td>
</tr>
<tr>
<td>REMARKS</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 | 11-26-96 |
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 OGD159 (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: NWLB 8-2
County: Los Angeles
Sec.: 13, T. 4S, R13W SB B. & M.
A.P.I. No.: 037-09793
Name: Steve Graner
Date: November, 1996
Title: President
(Signature)

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

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
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.
RECEIVED

NOV 22 1996

DIVISION OF OIL, GAS
& GEOTHERMAL RESOURCES
LONG BEACH
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.

DEC:df

cc: Update
Pacific Energy Resources

William F. Guerard, Jr.
State Oil and Gas Supervisor
By R. C. Manuel
For R. K. Baker, Deputy Supervisor
### CEMENTING/PLUGGING MEMO

Operator: Pacific Energy Resources
Well No.: NWLB 8-2
Field: Long Beach, Los Angeles
Sec.: 15, T.: 45, R.: 130, S.: B&M

There were also present: [List of names]

Mr./Ms.: [Signature]

Casing record of well:
- Casing shot at 2575' 4700' 4346' 4468' 4490' 4226' 4138' 4119'
- 4700' 4435' 4495' 4314' 5245' 5345' 5795'

The operations were performed for the purpose of:
- 71' 5480' Augured 15'/Cem. 5475'-5465' 5415'-5065'-3945'-3495' 2575'-2177' 70'-5'
- [Notes]

- [Check boxes]
  - The plugging/cementing operations as witnessed and reported are approved.
  - The location and hardness of the cement plug are approved.

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

<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 3/4&quot;</td>
<td>32</td>
<td>6</td>
<td>4016'</td>
<td>10/14/96</td>
<td>5755'</td>
<td>181 cf.</td>
<td>Ann. 2</td>
<td>Casing</td>
<td>600# 4098' - 3475'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 3/4&quot;</td>
<td>19</td>
<td>3950'</td>
<td>10/14</td>
<td>2575'</td>
<td>1529'</td>
<td>[x] = locked up tight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Casing/tubing recovered:
- 8 3/4" shot/cut at 70' pulled fr. 70'
- 5 3/4" shot/cut at 3950' pulled fr.

Junk (in hole):

Hole fluid (balled to) at [Note]
Witnessed by [Name]

<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>Pass</td>
<td>10/16/96</td>
<td>51</td>
<td>65' 3'00'</td>
<td>2575±</td>
<td>Heberg</td>
<td></td>
</tr>
<tr>
<td>77-py</td>
<td>10/17</td>
<td>133</td>
<td>2177</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** 5 1/2" collapsed (2) @ 3950'

<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>10/19/96</td>
<td>181 cf</td>
<td>65' 3 40'</td>
<td>Rptd. L.</td>
</tr>
<tr>
<td>10/14</td>
<td>15 20'</td>
<td>1,2575</td>
<td>R. Nair</td>
</tr>
<tr>
<td>10/19</td>
<td>239 y</td>
<td>770</td>
<td>-</td>
</tr>
</tbody>
</table>

OGD10 (12/94/3BR1/5M) Printed on recycled paper

Additional notes:
- Arted tubing only in to 3946'
- Clo to 3970' (0" OD by D.C.) - conventional rig
DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

N/A

UNCORRECTABLE DEFICIENCIES:

None

CONTRACTOR:

Fleet Cement, Inc
DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

Field: 
County: 
Spud Date: 

VISITS:
1st Date: 10/17/95 Engineer: R. Novak
2nd 
Contractor: Elliott Completions Inc. Rig #: Contractor's Rep. & Title: L. Bowden, Jr.

Casing record of well: 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 Ops: A - Live. MACP: PS. REQUIRED BOPE CLASS: D 29.9

Hole size: " to " to " & " to 

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>

Cement Details

Top of Cement

BOP STACK

TEST DATA

psi Drop to Close | Gal to Close | Recovery Time (Min.) | Calc. GPM Output | Test Date | Test Press.

psi

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure: psi
Total Rated Pump Output: gpm
Distance From Well Bore: ft.

Accum. Manufacturer | Capacity | Precharge |
1 | gal. | psi |
2 | gal. | psi |

CONTROL STATIONS


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

CONTROL STATIONS

 EMERG. BACKUP SYSTEM

N2 Cylinders
1. L= * [gal.]
2. L= * [gal.]
3. L= * [gal.]
4. L= * [gal.]
5. L= * [gal.]
6. L= * [gal.]

TOTAL: [gal.]

GPM

TOTAL: [psi]

AUXILIARY EQUIPMENT

Fill-up Line
Kill Line
Control Valve(s)
Check Valve(s)
Aux. Pump Connect.
Choke Line
Control Valve(s)
Pressure Gauge
Adjustable Choke(s)
Bleed Line
Upper Kelly Cock
Lower Kelly Cock
Standpipe Valve
Standpipe Press. Gauge
Pipe Safety Valve
Internal Preventer

HOLE FLUID MONITORING EQUIPMENT

Alarm Type: Audible Visual Class

- Calibrated Mud Pit
- Pit Level Indicator
- Pump Stroke Counter
- Pit Level Recorder
- Flow Sensor
- Mud Totalizer
- Calibrated Trip Tank
- Other:

Hole Fluid Type: Weight: Storage Pits (Type & Size): #

REMARKS AND DEFICIENCIES:

OGD9 (8/92/GSR1/JM)
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   0/1/41  R. M. Graner 5/8  Collected @ 3980' will down set
cc: Update
     EDP
     Gary Jones/Signal Hill
     Pacific Energy Resources

NO BOND REQUIRED

Engineer:  D. E. Curtis

Phone:  310/690-5311

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.
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, 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 (boss hole)
  
see over
3. Last produced 8/93 5 0 460
   (Date) (Oil, Bbl/day) (Gas, Mcf/day) (Water, Bbl/day)
   (or)
4. Last injected
   (Date) (Water, Bbl/day) (Gas, Mcf/day) (Surface pressure)

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? XX
   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' No 3850'
d/ Fill hole with 72% mud from TOC to 2450'
e/ Shoot cavity shot @ 2575' oil
f/ Cement from 2410'-2575' inside and outside of pipe
  
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
  
Telephone Number (310)
  
North Side Oil Corp.
  
By Steve Ahner, President

OG108 (1/95/GSR15/SM) 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'; perf 5065'-5415' and 5456'-5475'.
13"  
46#/c.

cmt
350<sks

759

8 5/8"
32 1/2:36#

cmt
400<sks

BFW 2225'

Top of cement-cs9- 2911'

3950'

4016' WSO

5 1/2"
cmt

4869' WSO

4016'-5475'

5065'

5475' -5475'

squeezed

TD 5480'
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBW WELLS
TO PACIFIC ENERGY
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 4-2
API No.: 037-09793 Sec. 13, T. 45S, R. 131W, S.B. B&M.
County: Los Angeles Field: Long Beach

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

STATUS
Producing - Oil
 Idle - Oil
Abandoned - Oil
Drilling - Idle
Abandoned - Dry Hole
Producing - Gas
Idle - Gas
Abandoned - Gas
Gas-Open to Oil Zone
Water Disposal
Water Flood
Steam Flood
Fire Flood
Air Injection
Gas Injection
CO2 Injection
LPG Injection
Observation

REMARKS

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 5/15/84

RECORDS NOT APPROVED
Reason: ______________________
__________________________________________
__________________________________________

RECORDS APPROVED 5/9/84

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

LONG BEACH OFFICE - USE REVERSE SIDE
Operator: Petro Resources, INC
Field: Long Beach
Well: NWLB 8-2, Sec. 13, T. 4S, R 13W., SB. B. & M.
A.P.I. No.: 037-09793
Name: Joe D. Rose
Title: Agent
Date: March 14, 1984
Address: 4200 Easton Dr., Bakersfield, CA 93309, Suite #16
Telephone: (805) 323-4118

Signature: [signature]
(Person submitting report)
(President, Secretary or Agent)

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.
REPORT ON OPERATIONS

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 NWLB 8-2, API No. 037-09793,
Sec. 13, T 48 S, R 13 W, S.B. B. & M., Long Beach Field, in Los Angeles County,
were witnessed on 2-15-84. G. Muggelberg, 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 7/8" 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.

CONTRACTOR: Graner Oil Co.

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**

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

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

**Engineer:** G. Muggenberg  
**Time:** 0810 to 0820  
**Operator's Rep.:** Joe Rose  
**Title:** Agent

**Casing record of well:**  
13 7/8" casim 761  
9 7/8" casim 4016 w50  
8 5/8" casim 3950-5475, perf 4269 w50  
perf 4146-4226, 4176-4700  
@ int 4935-4945  
@ int 5416-5246  
@ int 5345-5395  
TD 5400  
Plugged w/cem 5456-5475  
5418-5065

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation.  
**DECISION:** The blowout prevention equipment and its installation on the 8 7/8" casing are approved.

**REQUIRED BOPE CLASS:** II 2/M

**Proposed Well Opsns:** a) [ ] MPSP: [ ] psi  
Hole size: [ ] ft.  
**BOPE CLASS:** [ ] ft.

---

### 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>

### BOP STACK

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

### TEST DATA

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>a/b</th>
</tr>
</thead>
</table>

### ACTUATING SYSTEM

<table>
<thead>
<tr>
<th>Accum. Unit(s)</th>
<th>Wkg. Press.</th>
<th>psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
<td></td>
</tr>
</tbody>
</table>

### Auxiliary Equipment

<table>
<thead>
<tr>
<th>Connections</th>
</tr>
</thead>
</table>

### AUXILIARY EQUIPMENT

<table>
<thead>
<tr>
<th>Fill-Up Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kill Line</td>
</tr>
<tr>
<td>( N2 ) Cyl: No: Type:</td>
</tr>
<tr>
<td>Press.</td>
</tr>
</tbody>
</table>

### EMERG. BACKUP SYST.

<table>
<thead>
<tr>
<th>Bleed Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Kelly Cock</td>
</tr>
<tr>
<td>Lower Kelly Cock</td>
</tr>
<tr>
<td>Standpipe Valve</td>
</tr>
<tr>
<td>Standpipe Pressure Ga.</td>
</tr>
<tr>
<td>Pipe Safety Valve</td>
</tr>
<tr>
<td>Internal Preventer</td>
</tr>
</tbody>
</table>

### HOLE FLUID MONITORING EQUIPMENT

| Calibrated Mud Pit | 
| Pit Level Indicator | 
| Pump Stroke Counter | 
| Pit Level Recorder | 
| Flow Sensor | 
| Mud Totalizer | 
| Calibrated Trip Tank | 

**REMARKS:**

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

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

None

DEFICIENCIES—CORRECTED

1. Low pressure valve on KILL line

CONTRACTOR

Graner Oil Co.
PERMIT TO CONDUCT WELL OPERATIONS

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 94309

Long Beach, California
February 8, 1984

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 IL2M 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 F. F. Saade, 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/CSR1/5M)
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 (Well designation) . 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 Alaminos ; Zone in which well is to be recompleted Alaminos

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)
   (or)
   Last injected not- (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
Bakersfield, Calif. 93309
(Street) (City) (State) (Zip)
Telephone Number (805) 323-4118

Petro Resources, Inc.

By Joe D. Rose

(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>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.

Confirmed by

New operator new status (status abbreviation) | Request designation of agent |
PA                                             | Joe D. Rose, same address. |

Old operator new status (status abbreviation) | Remarks |
PA                                             |         |

OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>PA - Producing Active</th>
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</thead>
<tbody>
<tr>
<td>NPA - No Potential, Active</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>P1 - Potential Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form OGD121</td>
</tr>
<tr>
<td>CP 7-1-83</td>
</tr>
<tr>
<td>Map and book</td>
</tr>
<tr>
<td>137 2/1/83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NP1 - No Potential, Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form OGD140</td>
</tr>
<tr>
<td>NONE</td>
</tr>
<tr>
<td>Notice to be cancelled</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ab - Abandoned or No More Wells</th>
</tr>
</thead>
<tbody>
<tr>
<td>New well cards</td>
</tr>
<tr>
<td>CP 7-7-83</td>
</tr>
<tr>
<td>Bond status</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well records</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP 7-7-83</td>
</tr>
<tr>
<td>Conservation Committee</td>
</tr>
<tr>
<td>L. A. Assessors</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></td>
<td></td>
<td></td>
<td>Map and book</td>
<td>137</td>
<td>2/1/83</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Notice to be cancelled</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bond status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CP 7-7-83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conservation Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></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.
STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

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.E. 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>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>2</td>
<td>NWLB 5-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>3</td>
<td>NWLB 5-3</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>4</td>
<td>NWLB 5-4</td>
</tr>
<tr>
<td>&quot;Amebco&quot;</td>
<td>037-09788</td>
<td>NWLB 6-1</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>2</td>
<td>NWLB 6-2</td>
</tr>
<tr>
<td>&quot;Flood Control&quot;</td>
<td>037-13525</td>
<td>NWLB 9-2</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>3</td>
<td>NWLB 9-3</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>4</td>
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<td>&quot;&quot;</td>
<td>5</td>
<td>NWLB 9-5</td>
</tr>
<tr>
<td>&quot;&quot;</td>
<td>6</td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

M. G. Mefford
Chief Oil and Gas Inspector
State Oil and Gas Supervisor

By: Richard W. Ybarra
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>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Former owner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Exploration Co.</td>
<td>February 15, 1979</td>
</tr>
</tbody>
</table>

### Name and location of well(s)

<table>
<thead>
<tr>
<th>Section</th>
<th>Well Name</th>
<th>Well Number</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-4S-13W</td>
<td>&quot;Dominguez&quot; 2-10</td>
<td>(037-11859)</td>
<td>&quot;Flood Control&quot; 6</td>
</tr>
<tr>
<td>13-4S-13W</td>
<td>&quot;Oil Operators&quot; 1</td>
<td>(037-09792)</td>
<td>&quot;Oil Operators&quot; 2</td>
</tr>
<tr>
<td>13-4S-13W</td>
<td>&quot;Oil Operators&quot; 3</td>
<td>(037-06496)</td>
<td>&quot;Oil Operators&quot; 4</td>
</tr>
<tr>
<td>14-4S-13W</td>
<td>&quot;Pool&quot; 1</td>
<td>(037-09795)</td>
<td>&quot;Pool&quot; 2</td>
</tr>
<tr>
<td></td>
<td>&quot;Pool&quot; 3</td>
<td>(037-09796)</td>
<td>&quot;Pool&quot; 4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Section</th>
<th>Well Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-4S-13W</td>
<td>&quot;Dominguez&quot; 1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Date</th>
<th>New owner</th>
<th>Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 1, 1978</td>
<td>Sun Oil Company</td>
<td></td>
</tr>
</tbody>
</table>

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

### Former operator

**Reported by** Former operator

### New operator

**Confirmed by** New operator

### 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 Production, 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>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>Map and book</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New well logs</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Well reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric logs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production logs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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,

A. D. Stockton
Associate Oil and Gas Engineer

ADS: dr
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
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. S. 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)

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

Remarks:

cc: 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"
Date Received 11-19-57

Elec. Log Radio Log ___________ Subsequent Work

Direct. Surv. Other Data Well Summary

Location

Elevation Clerk

Prod. Repts. Clerk

Completed Producing on 10-27-57

Abandoned on

BOND Release __ Date Elig. __ 150b __

End Prem. year __ Release Requested __ Superseded __

Aband. __ Redrill __

HOLD BOND Reason

Data Needed

Final Letter Eng. RC: Abandon
<table>
<thead>
<tr>
<th>NO.</th>
<th>TOURS</th>
<th>DEPTH</th>
<th>EFFECTIVE DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10-20</td>
<td>3480</td>
<td>Plug 5065</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>10-26</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Change: IR-AFE 59359, Job 593

Proposed work: Add perforations in the Alamitos zone.

Production before repair: 7 Gross - 6 Net - 21.8° - 12.1%

Zero point for this job: 1' above derrick floor.

<table>
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<td>Nov 1, 1959</td>
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Casing record at start of work:
1 3/8" C 759' 8-5/8" C 4016' w/o.
1 4/8" 4-1/2' H 4205' incl. 90' p.f., pulled.
1 5/2" 5-1/2' C 5475'. Splice test OK.
1 Bullet pf & plgd., 5165-5205' - 5320-5345'.
1 5346-5399'. Test holes 4869' OK.
1 Bullet pf 4640-4700', 4835-4845', 4870-4945'.
1 Perf & Rep 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 fall at 4995'. Ran in 4-1/2' impression block - stopped at 4995'. Tried to break off 2-5/8" production head - unable to do so.


Gun perforated 5-1/2" casing from 4228-4418' with two 1/2" bullets per foot. Used 8-5/8 wire line equipment. Fluid level at start 4450' - at finish 1202'. Very good blow of gas. Had approximately 400' of sand fall from 4930' 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. Slanted pump. Loaded out tools. Fluid level at 700'.

Names of Drillers/Head Well Pullers:
Terminal Drilling Co. - Contractor

Vaughn S. Moyer

District Engineer
**DIVISION OF OIL AND GAS**

**UNION OIL COMPANY**

**REPAIR REPORT**

**History of Oil or Gas Well**

**Oil Operators #2**

**Long Beach**

**Los Angeles**

**Field**

**COUNTY**

**SECT**

**R**

**W S B**

**B & M**

**November 8, 1959**

**REMARKS**

**Spooled tubing line off of derrick. Loaded out tools. Contractor moved out.**

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<tr>
<th>NO. TOURS</th>
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<th>PRODUCTION DATA</th>
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<td>Flug 5065</td>
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</table>

**Hrs**

- 16
- 24

**Gross**

- 289
- 502
- 579
- 576
- 593
- 583
- 581
- 597
- 583
- 591
- 590
- 583

**Net**

- 29
- 15
- 12
- 12
- 12
- 15
- 15
- 24
- 17
- 18
- 18
- 23

**Cut**

- 90.0
- 97.0
- 98.0
- 98.0
- 98.0
- 97.0
- 97.0
- 96.0
- 97.0
- 97.0
- 97.0
- 96.0

**Gray.**

- 4
- 4
- 3
- 3
- 3
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- 3
- 3
- 3
- 3
- 3

**Remarks**

- Wld in & assembled large pumping unit.

**DIVISION OF OIL AND GAS**

**RECEIVED**

**NOV 9 1959**

**INGLEWOOD, CALIFORNIA**

**NAMES OF DRILLERS/HEAD WELL PULLERS:**

**Terminal Drilling Co. - Contractor**

** Vaughn S. Meyer**

**DISTRICT ENGINEER**
COMPLETED PRODUCING ON: 10-27-59

ABANDONED ON:  

STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  
REPORT ON PROPOSED OPERATIONS  
No. P. 159-886  

Mr. C. F. Bowden  
P. O. Box 7600  
Los Angeles 24, 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" cas. 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. 5460'. Plug 5065'.
2. Complete casing record.
   13-3/8" C 799'.
   8-5/8" C 4016'.
   10-1/2" H 4195'.
   9-5/8" C 4491'.
   Pullled.
   1525' 5-1/2" C 4575'. Splice test OK.
   Bullet pf & plgd 5165'-5295', 5225'-5245', 5345'-5395'.
   Test holes 4869' OK.
   Bullet pf 4640'-4700', 4835'-4845', 4870'-4945'.
   Repf. 4915'-4945'.
3. Last produced. Sept. 1959  6 B/D  
(Date)  (Net Oil)  
(21.8')  (Gravity)  
(12.1%)  (Cut)"

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: cmh  
cc Vaughan S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor

Blanket Bond  
By [Signature]

Deputy
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

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. 13-3/8" C 759', 8-5/8" C 4016', WSO 11/4" 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'

1. Total depth. 5480' Plug 5065'

2. Complete casing record.
   13-3/8" C 759'

3. Last produced. Sept. 1959
   Date 6 B/D
   Net Oil 21.8°
   Gravity 12.1°

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. Neylon, 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

STENOGRAPHER

Elec. Log: Radio Log

Direct. Surv.: Other Data

Location

Elevation: Steno

RECEIPT FOR

ENGINEER

BOND: Release: Date Elig.: 150b


HOLD BOND: Reason

Data Needed

Final Letter Eng.

Well Summary:

Drillers Log:

Core Record:

History:

V 2

Elect. Log:

Radio Log:

Direct. Surv.:

Redrill:

Deepen:

Plug:

Alter Cag.:

Abandon:

10
Oil Operators #2
Long Beach
Los Angeles

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
UNION-OIL COMPANY

History of Oil or Gas Well
REPAIR REPORT
Prod. Hist. - Contract
September 10, 1953

NO. TOU R S
DATE
DEPTH
EFFECTIVE
DEPTH
1953

CHARGE: B.R.-A.P.E. 51,528 Job 240-8

PROPOSED WORK: Plug with cement to 5100'. Test for WSO at 4369'. Gun perf 4370-4945'. Test on production.

PRODUCTION BEFORE REPAIR: June, 1953 - 4 B/D Net - 23.8° - 33.0%

ZERO POINT FOR THIS JOB: 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.
3 1/4' 4-5/8' H 4205' 4-5/8' 4-5/8' perf. Pulled
1525' 5/8' C 5475'. Splice test OK
Bullet perf 5165-5205', 5220-5245', 5345-5395'.

Casing Record at Completion of Work:
T.D. 5380'. Plug 5065'.
13-3/8' C 759'. 8-5/8' C 4016' WSO.
3 1/4' 4-5/8' H 4205' 4-5/8' 4-5/8' perf. Pulled
1525' 5/8' C 5475': Splice test OK
Bullet perf & plgd 5265-5295', 5220-5245', 5345-5395'. Test holes 4369' OK
Bullet perf 4640-4700', 4335-4345', 4370-4945'. Repair 4915-4945'.

CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up.

Casing Record at Start of Work:
T.D. 4105' Deepen 5480'
13-3/8' C 759'
8-5/8' C 4016' WSO.
3 1/4' 4-5/8' H 4205' 4-5/8' 4-5/8' perf. Pulled
1525' 5/8' C 5475'. Splice test OK
Bullet perf 5165-5205', 5220-5245', 5345-5395'.

CLEAN OUT AND PLUG
Bailed with 3-1/8' 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 3910'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.

Found fluid level at 3905'.

WSD & PERFORATING
Ran in with McCullough 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 11:15 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 4245' to 4370'. Fluid level after perforating 3870'.

Checked fluid at 3840', filled at 5047'. Cleaned out sand with 3-1/3' Cavins sand pump from 5047' to 5065'. Ran tubing.


SIGNED:
California Production Service, Contractor

Vaughn S. Moyer,

DISTRIC T ENGINEER
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CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3680', no fill. 4½ impression block went to bottom - 5065'.

PERFORATING
Ran in with 6" o.d., Lane-Well's 4-2 gun 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 3720' at 10:20 a.m. Perforated from 4835' 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 1:50 p.m. Net fluid rise 300'. No fill.


Well completed pumping in the Brown Zone.

Names of Drillers/Head Well Browsers:
California Production Service, Contractor.

Vaughn S. Moyer,

District Engineer
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**REPAIR REPORT**

**Oil Operators #2**

**History of Oil or Gas Well**

**Producers: Hoist - Contract**

**STATE OF CALIFORNIA**

**DEPARTMENT OF NATURAL RESOURCES**

**DIVISION OF OIL AND GAS**

**UNION OIL COMPANY**

**Long Beach**

**Los Angeles**

**13 1/2 S 13W S.B.**

**October 6, 1953**

**NOTICE TO OPERATOR**

**5480 Vintage 5065**

**DIVISION OF OIL AND GAS**

**RECEIVED**

**OCT 21, 1953**

**LOS ANGELES, CALIFORNIA**

**NAME OF DRILLER: HEAD M. O. C. 4026**

**NAME OF DRILLING SERVICE: CONTRACTOR**

** Californian Drilling Service, Contractor**

**District Engineer**

**Vaughn M. Moyer**
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(BAILING)

No. T. 153-1095

Los Angeles 15 Calif. September 16 1953

Mr. W. E. 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 C. Bradford, Hoist 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 300 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'-.5345', 5245'-.5220', 5205'-.5165', four 1/2 holes 4869', W. S. O., plugged with cement 5480'-.5456' and 5417'-.5065'. Reported total depth 5480 ft. Plugged 5345'.

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 __________________________, Deputy
Special Report on Operations Witnessed

No. T.153-1094

Los Angeles 15

Calif.

September 16

1953

Mr. W. S. Pealeston

1169 Union Oil Building

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. C. Heavenbush, Inspector, representative of the supervisor, on September 4, 1953. There was also present A. Fowke, Foreman, and W. Bradford, Well Puller.

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. Fowke 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.

GCH:ES

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: [Signature] Deputy
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

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 5460' - 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.

1441.6-5/8" H 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)

4 B/D (Net Oil)
23.8' (Gravity)
83.0% (Cut)"

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'.

JW:OH

cc Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By /s/ [Signature]
Deputy

Blanket bond.

Date: 10-21-53

Records Filed
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
(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. Total depth.
   4105' Deepen 5480'

2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 4016' W.S.O.
   11-1-6-5/8" H-4105' including 90' perforations. Pulled.
   1525' 5-1/2" C 5475', splice test O.K.
   Bullet perforate 5165-5205, 5220-5255, 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 4915'.
4. Test on production.

UNION OIL COMPANY OF CALIFORNIA

(Name of Operator)

By  C. R. Bearden, 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, 1926.

Date: December 5, 1941  
Title: DIVISION ENGINEER  
(Signed)  
(Registrar, 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>
<tr>
<td>11-1</td>
<td>5480'</td>
<td>Found top of cement at 5245'. Cleaned out cement to 5456'. Bailed fluid from surface. Could not lower below 1050'.</td>
</tr>
<tr>
<td>11-2</td>
<td>5480'</td>
<td>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'.</td>
</tr>
</tbody>
</table>

**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>13-3/8&quot; C 759'</td>
<td></td>
</tr>
<tr>
<td>114' of 6-5/8&quot; L 4105' incl 90' perf.</td>
<td>1525' of 5-1/2&quot; C 5475'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gun Perforated 5165-5205'</td>
<td>5220-5245'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5345-5395'</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, 1936, was filed.

**Signed:**

<table>
<thead>
<tr>
<th>Date</th>
<th>DEPTH</th>
<th>EFF. DEPTH</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-4</td>
<td>5480'</td>
<td>Plug 5456'</td>
<td>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>
</tr>
</tbody>
</table>
| 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 |
| 11-7       |       |            | 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, 2.5% cut, P 15 hours                            |
| 11-12      |       |            | 88 net, 23.5° gravity, 2.8% cut, P 24 hours                           |
| 11-22      |       |            | 74 net, 25.4° gravity, 4.6% cut, P 24 hours                           |
| 11-30      |       |            | 56 net, 25.4° gravity, 2.4% cut, P 24 hours                           |

November Production - 1,317 barrels in 20 days.

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 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.
### Formations Penetrated by Well

<table>
<thead>
<tr>
<th>Depth to (ft)</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4800 - 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>
Mr. W. S. Eggleston, 

Los Angeles, Calif.

Dear Sir:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 4S., R. 13W., S. 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. O. Hilton, Engineer, and P. Dezarn, Drilling Foreman.

<table>
<thead>
<tr>
<th>Casing Record</th>
<th>Junk</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot; com. 759', 8-5/8&quot; com. 4016'</td>
<td>None</td>
</tr>
<tr>
<td>W. S. O.; 5-1/2&quot; com. 3950'-5475', T. D. 5480', plugged with cement 5480'-5456'.</td>
<td></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.

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 5-1/2" 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 Slow Colton cement.
4. The 8-5/8" - 5-1/2" casing spliced tested wet.
5. On November 2, 1941, the 8-5/8" - 5-1/2" casing spliced 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.*

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Mussen Deputy
Mr. W. S. Eggleston, Agent for Union Oil Company of California

Dear Sir:

Your proposal to deepen Well No. "Oil Operators' 2"
Section 13, T. 4 S., R. 33 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
2-5/8 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 - 1441 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. M. Winter
Long Beach
ABH10H

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Messer 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, Califo. September 11, 1941

DIVISION OF OIL AND GAS

Los Angeles, Califo.

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 at well No. Oil Operators #2
(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:

Total Depth 4105
13-3/8 cmtd. 750
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
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 4 S., R. 13, W. 2-3-4, as herewith enumerated by well numbers.

History

Core record

Subsequent work

R. D. BUSH, State Oil and Gas Supervisor

By: [Signature]
History of Oil or Gas Well

Operator: Union Oil Company of California  Field: Long Beach

Well No.: Oil Operators 2, Sec. 13, T. 4-S, R. 15-E, S.B. B. & M.

Signed: Henry W. Winters

Date: Jan. 11, 1938

Casing Record at Start of Work:
New well

<table>
<thead>
<tr>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>Spudded in and drilled with 17&quot; rotary bit.</td>
</tr>
<tr>
<td>761</td>
<td>Drilled with 17&quot; rotary bits to 761'. Cemented new 13-3/8&quot; 45.97' National seamless slipjoint casing at 759' with 350 ax Monolith Veil cement. Cementing operations witnessed and approved by Stolz, of Division of Oil &amp; Gas.</td>
</tr>
<tr>
<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>3859</td>
<td>Drilled with 12-1/4&quot; bits to 3859'. Ran Schlumberger Survey.</td>
</tr>
<tr>
<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;C&quot; (1963' of 36#/ Grade &quot;C&quot; on bottom) 8-thread round ended seamless casing at 4016' with 400 ax cement (200 ax Victor oil well and 200 ax Victor construction).</td>
</tr>
<tr>
<td>4075</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>4106</td>
<td>Cored to 4106. Ran Schlumberger Survey. Landed 114' of 6-5/8&quot; 25#/ Grade &quot;C&quot; casing at 4105', including 90' of 10-3/4 120-mesh Kobe perforated on bottom. Bailed to 1200' and well started flowing by heads.</td>
</tr>
<tr>
<td>4105</td>
<td>Bailed hole clean of mud and sand. Landed 3&quot; upset tubing at 3649'. Ran rods and installed pumping unit. Put well on pump 6:00 P.M. 12-14-37.</td>
</tr>
</tbody>
</table>
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA  Field: LONG BEACH

Well No. OIL OPERATIONS 2, Sec. 13, T. 4 S., R. 15 W., S.B. B. & M.

Signed: [Signature]

Date: Jan. 11, 1938  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 bags of cement used in the plugging, number of bags 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>Gross</th>
<th>Net</th>
<th>Grav.</th>
<th>Cut</th>
<th>Status</th>
<th>Bean</th>
<th>T.P.</th>
<th>G.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>P 10</td>
<td></td>
<td></td>
<td></td>
<td>On pump 5:00 P.M.</td>
</tr>
<tr>
<td>12-15</td>
<td>869</td>
<td>554</td>
<td>&quot;</td>
<td>1.7</td>
<td>P 24</td>
<td></td>
<td></td>
<td></td>
<td>Well started to flow in morning.</td>
</tr>
<tr>
<td>12-16</td>
<td>673</td>
<td>302</td>
<td>&quot;</td>
<td>1.5</td>
<td>&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Sanded up. Killed well. Rigged up to pull.</td>
</tr>
<tr>
<td>12-17</td>
<td>1757</td>
<td>1625</td>
<td>&quot;</td>
<td>7.5</td>
<td>&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Pulled rods and tubing. Ran bailer and found hole open to bottom (4105) Landed 3&quot; upset tubing at 3935.</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>Well started flowing without swabbing.</td>
</tr>
<tr>
<td>12-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No daily gas</td>
</tr>
<tr>
<td>12-20</td>
<td>1482</td>
<td>1403</td>
<td>&quot;</td>
<td>8.4</td>
<td>P 24</td>
<td></td>
<td></td>
<td></td>
<td>Dec 945 18,573 MCF</td>
</tr>
<tr>
<td>12-21</td>
<td>1129</td>
<td>1109</td>
<td>&quot;</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
<td></td>
<td></td>
<td>Dec 946 18,573 MCF</td>
</tr>
<tr>
<td>12-22</td>
<td>984</td>
<td>974</td>
<td>&quot;</td>
<td>1.0</td>
<td>&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Dec 947 18,573 MCF</td>
</tr>
<tr>
<td>12-23</td>
<td>969</td>
<td>968</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Dec 948 18,573 MCF</td>
</tr>
<tr>
<td>12-24</td>
<td>1053</td>
<td>1042</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>57/64</td>
<td>125</td>
<td></td>
<td>Dec 949 18,573 MCF</td>
</tr>
<tr>
<td>12-25</td>
<td>1117</td>
<td>1101</td>
<td>&quot;</td>
<td>1.4</td>
<td>1/4&quot;</td>
<td></td>
<td>50</td>
<td></td>
<td>Dec 950 18,573 MCF</td>
</tr>
<tr>
<td>12-26</td>
<td>1093</td>
<td>1082</td>
<td>&quot;</td>
<td>1.0</td>
<td>1/4&quot;</td>
<td>1 1/4</td>
<td>40</td>
<td></td>
<td>Dec 951 18,573 MCF</td>
</tr>
<tr>
<td>12-27</td>
<td>1027</td>
<td>1016</td>
<td>&quot;</td>
<td>1.2</td>
<td>&quot;</td>
<td></td>
<td>275</td>
<td></td>
<td>Dec 952 18,573 MCF</td>
</tr>
<tr>
<td>12-28</td>
<td>979</td>
<td>966</td>
<td>&quot;</td>
<td>1.3</td>
<td>&quot;</td>
<td></td>
<td>275</td>
<td></td>
<td>Dec 953 18,573 MCF</td>
</tr>
<tr>
<td>12-29</td>
<td>975</td>
<td>965</td>
<td>&quot;</td>
<td>1.0</td>
<td>&quot;</td>
<td></td>
<td>275</td>
<td></td>
<td>Dec 954 18,573 MCF</td>
</tr>
<tr>
<td>12-30</td>
<td>963</td>
<td>958</td>
<td>&quot;</td>
<td>0.9</td>
<td>&quot;</td>
<td></td>
<td>275</td>
<td></td>
<td>Dec 955 18,573 MCF</td>
</tr>
<tr>
<td>12-31</td>
<td>938</td>
<td>929</td>
<td>&quot;</td>
<td>1.0</td>
<td>&quot;</td>
<td></td>
<td>275</td>
<td></td>
<td>Dec 956 18,573 MCF</td>
</tr>
</tbody>
</table>
**LOG OF OIL OR GAS WELL**

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

**Well No.:** Oil Operators E  
**Sec.:** 13  
**T.:** 4-6  
**R.:** 13-W  
**S.B.:** B. & M.  
**523' W1/4ly along the center line of Hixby Road projected from the center of the Pacific Electric Railway Right of Way and thence 60' N1/4ly at 90° Elevation:** 56.97

**Location:** Pacific Electric Railway Right of Way and thence 60' N1/4ly at 90°

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 E. Winter

**Commenced drilling:** Nov. 13, 1937  
**Completed drilling:** Dec. 14, 1937  
**Drilling tools:** Rotary

**Total depth:** 4106  
**Plugged depth:** Junk

**GEOLOGICAL MARKERS**

<table>
<thead>
<tr>
<th>Marker</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilbur shale</td>
<td>3597 - 3662</td>
</tr>
<tr>
<td>Alamosa shale</td>
<td>3795 - 3860</td>
</tr>
<tr>
<td>&quot;H&quot;</td>
<td>3982</td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>4017</td>
</tr>
</tbody>
</table>

**Commenced producing:** Dec. 14, 1937  
**Flowing/gross/pumping:**  
(first 4 days)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial production</td>
<td>864 bbl per day</td>
</tr>
<tr>
<td></td>
<td>25.8 gravity</td>
</tr>
<tr>
<td></td>
<td>1.7 percent water</td>
</tr>
<tr>
<td>Production after 30 days</td>
<td>929 bbl per day</td>
</tr>
<tr>
<td></td>
<td>23.8 gravity</td>
</tr>
<tr>
<td></td>
<td>1.0 percent water</td>
</tr>
<tr>
<td></td>
<td>25 psi</td>
</tr>
<tr>
<td></td>
<td>270 psi</td>
</tr>
</tbody>
</table>

**Casing Record (Present Hole)**

<table>
<thead>
<tr>
<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 it through perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>759</td>
<td>Surface</td>
<td>45.07#</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;G&quot;</td>
<td>17&quot;</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>3-5/8</td>
<td>4016</td>
<td>Surface</td>
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**Perforations**

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# 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-N, **SB:** B. & M.

## Formations Penetrated by Well

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No cores taken.
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<td>Firm soft, fine brown oil sand</td>
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<td>laminated with mud</td>
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<td>Hard dark brown shale with streaks of fine brown oil sand</td>
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<td>Hard grayish-brown bentonitic shale</td>
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<td>laminated with fine brown oil sand</td>
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<td>Hard dark brown shale</td>
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<td></td>
<td></td>
<td></td>
<td>Fine grayish-brown oil sand, light amber cut</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shale with streaks of oil sand, broken and badly burnt</td>
</tr>
</tbody>
</table>

<p>| 12-11 | 6-       | 7-5/8&quot; Soil        | 4075 | 4088 | 11.2         | 0.1   | 0.5      | 0.2       | 0.2   | Firm soft fine brown oil sand |
|       |         |                    |      |      |              |       |          |           |       | Firm soft, fine brown oil sand with inclusions |
|       |         |                    |      |      |              |       |          |           |       | of fine gray sand. Streaks of fine brown oil sand. Fracture of 25° &amp; 23° |
|       |         |                    |      |      |              |       |          |           |       | Good odor and dark amber cut |
|       |         |                    |      |      |              |       |          |           |       | Hard dark brown sandy shale |
|       |         |                    |      |      |              |       |          |           |       | Firm soft, fine brown oil sand |
|       |         |                    |      |      |              |       |          |           |       | Hard dark brown sandy shale |
|       |         |                    |      |      |              |       |          |           |       | Firm slightly calcareous shale shell |
|       |         |                    |      |      |              |       |          |           |       | Hard dark brown sandy shale with streaks of fine brown oil sand |
|       |         |                    |      |      |              |       |          |           |       | Firm soft, fine brown oil sand |
|       |         |                    |      |      |              |       |          |           |       | Hard dark brown sandy shale with streaks of fine brown oil sand |
|       |         |                    |      |      |              |       |          |           |       | Fracture of 24° |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Core No.</th>
<th>Driller Size &amp; Type</th>
<th>From</th>
<th>To</th>
<th>Total Recr.</th>
<th>Shale</th>
<th>Oil</th>
<th>Sand</th>
<th>Gray</th>
<th>Shell</th>
<th>Description of Core</th>
<th>Appr. Dip</th>
<th>Angle of Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-11</td>
<td>7</td>
<td>7-5/8&quot; Soll</td>
<td>4088</td>
<td>4105</td>
<td>14.4</td>
<td>0.1</td>
<td>0.3</td>
<td>6.2</td>
<td>0.1</td>
<td>0.4</td>
<td>Hard dark brown sandy shale, hard, slightly calcareous, sandy shale shell</td>
<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td>0.3</td>
<td>0.3</td>
<td></td>
<td>0.1</td>
<td>0.4</td>
<td>Hard brown sandy shale</td>
<td></td>
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<td>Firm soft fine to medium brown oil sand</td>
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<td>0.5</td>
<td>0.5</td>
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<td></td>
<td></td>
<td>Good odor and dark greenish-brown cut</td>
<td></td>
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<td></td>
<td>0.6</td>
<td>0.6</td>
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<td>Hard sandy brown shale with streaks of fine brown oil sand</td>
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<td>0.7</td>
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<td>Firm fine dark brown argillaceous oil sand</td>
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<td>0.8</td>
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<td>Hard brown sandy shale</td>
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<td></td>
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<td>Firm soft fine brown oil sand</td>
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<td></td>
<td></td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>Hard brown silty shale</td>
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<td></td>
<td></td>
<td>1.1</td>
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<td></td>
<td>Firm soft fine to medium brown oil sand</td>
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<td></td>
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<td>1.2</td>
<td>1.2</td>
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<td></td>
<td></td>
<td>Good odor and dark greenish-brown cut</td>
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<td></td>
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<td>1.3</td>
<td>1.3</td>
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<td></td>
<td></td>
<td>Hard dark brown silty shale with streaks of fine brown oil sand</td>
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</tr>
</tbody>
</table>

Total depth 4105 ft.
STATE OF CALIFORNIA
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. Stolz, 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 5-5/8 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. |

at 4016 ft. with 400 sacks Victor oil well and cement by casing method.

Water string was landed in 12' rotary hole.

Casing record of well 13-3/8" cen. 7591; 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 XXXX.

At Sea below oil bailed to XXXX ft., drilling fluid drilled to XXXX ft.

At Sea below top of oil found at XXXX ft., top of fluid found at XXXX 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'.
5. The tester valve was opened at 8:15 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 C. H. Long
Deputy

cc- H. E. Winter
Long Beach
FCS:CH
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. E. & 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]

B:EMS

Deputy Supervisor.

CC - Mr. R. D. Bush (2)
Long Beach
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. Winter
District Engineer.
Los Angeles, Calif. November 22, 1937

Mr. Ed Jussak, Jr. 

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 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" - 1/2.97 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

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.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 ft. WLY along center line of San Antonio from the center line of Del Mar and thence 115 ft. WLY 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
13-3/8 46 New 700' Ctd.
8-5/8 36 New 4000 Ctd.
6-5/8 Perforated liner New 4100 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, 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 DECISION 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
WJG:OH

* 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

By: [Signature]
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. Hughenin,
Deputy State Oil and Gas Supervisor

Los Angeles, Cal.

R-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. 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 Sixty Road projected from the center line of the Pacific Electric Railway Right of Way and thence 500 ft. willy along center line of San Antonio from the center line of Del Mar and thence 1151 willy at right angles (Give location in distance from section corners or other corners of legal subdivisions).

The elevation of the derrick floor above sea level is feet. (Approx. 55') 56.97

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>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></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.

Union Oil Company of California
(Name of Company or Operator)

By

District Engineer

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

COMPANY: [Redacted] DATE: 12/3/57
FIELD: Longreach LOCATION: 
WELL: C124137 ELEVATION: ft

Casing shoe depth: Driller 750 ft. Started run 10:00 A.M.
Schlumberger ft. Finished run 12:00 A.M.
Bottom Depth: Driller 750 ft. Time well occupied by outfit 24 h.
Max. depth reached by lower elect 750 ft. Time waiting at well none h.
Max. footage measured (p or S.P.) 150 ft. Mileage incurred by run 15 M.
Footage missed 2 ft. Total time incurred by run 36 h.

MUD CHARACTERISTICS

NATURE: [Redacted] VISCOSITY: LEVEL:
DENSITY: 75 RESISTIVITY: 21

DIAMETER OF HOLE

12.1"

REMARKS

"100.1 70"

82

Witnessed By: [Redacted]

Observers: [Redacted]

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG ohms m</th>
<th>POROSITY LOG millivolts</th>
</tr>
</thead>
</table>
| 0     | 15                     | 30                     | 180

[Graph and data points]
<table>
<thead>
<tr>
<th><strong>Casing shoe depth:</strong></th>
<th>Driller</th>
<th>4016 ft. Started run</th>
<th>9:00 a.m.</th>
<th>Schlumberger</th>
<th>ft. Finished run</th>
<th>11:00 a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bottom Depth:</strong></td>
<td>Driller</td>
<td>4105 ft. Time well occupied by outfit</td>
<td>2 h.</td>
<td>Schlumberger</td>
<td>ft. Time waiting at well</td>
<td>-- h.</td>
</tr>
<tr>
<td>Max. depth reached by lower elect</td>
<td>Schlumberger</td>
<td>4104 ft.</td>
<td>72 ft.</td>
<td>Mileage incurred by run</td>
<td>15 M.</td>
<td></td>
</tr>
<tr>
<td>Max. footage measured (p or S.P.)</td>
<td>Schlumberger</td>
<td>72 ft.</td>
<td>Total time incurred by run</td>
<td>3 h.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Footage missed</strong></td>
<td>1 ft. Total time incurred by run</td>
<td>3 h.</td>
<td></td>
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<td></td>
</tr>
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</table>

**MUD CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Nature</th>
<th>Viscosity</th>
<th>Resistivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>no sample</td>
<td>no sample</td>
</tr>
<tr>
<td>Density</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

**DIAMETER OF HOLE**

7-5/8"

**REMARKS**

Device: 20"

**SCHLUMBERGER 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>
<th>Driller</th>
<th>759 ft. Started run</th>
<th>4:15 p.m.</th>
<th>Schlumberger</th>
<th>ft. Finished run</th>
<th>5:45 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bottom Depth:</strong></td>
<td>Driller</td>
<td>4034 ft. Time well occupied by outfit</td>
<td>1 1/2 h.</td>
<td>Schlumberger</td>
<td>ft. Time waiting at well</td>
<td>none h.</td>
</tr>
<tr>
<td>Max. depth reached by lower elect</td>
<td>Schlumberger</td>
<td>4032 ft.</td>
<td>173 ft. Mileage incurred by run</td>
<td>15 M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. footage measured (p or S.P.)</td>
<td>Schlumberger</td>
<td>173 ft.</td>
<td>Total time incurred by run</td>
<td>3 h.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Footage missed</strong></td>
<td>2 ft. Total time incurred by run</td>
<td>3 h.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MUD CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Nature</th>
<th>Viscosity</th>
<th>Resistivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>24</td>
<td>3.4</td>
</tr>
<tr>
<td>Density</td>
<td>75</td>
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</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 | 759 ft. Started run | 10:00 a.m. |
| Schlumberger | ft. Finished run | 12:45 a.m. |

Bottom Depth:

| Driller | 3858 ft. Time well occupied by outfit | 2 h. |
| Schlumberger | 3857 ft. Time waiting at well | none h. |

Max. depth reached by lower elect

| 3093 ft. Mileage incurred by run | 15 M. |

Footage missed

| 2 ft. Total time incurred by run | 3/8 h. |

MUD CHARACTERISTICS

| Nature: Natural | Viscosity: | Level: |
| Density: 75 | Resistivity: 5.8 |

DIAMETER OF HOLE

12½"

REMARKS

Device: 20"

Witnessed By: Mr. Winter

Observers: F. Peroushek

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG ohms. m²/m</th>
<th>POROSITY LOG millivolts</th>
</tr>
</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>5235'</td>
<td>5480'</td>
</tr>
<tr>
<td>Depth rchd.</td>
<td>5235'</td>
<td>5477'</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>75#/</td>
<td>79#/</td>
</tr>
<tr>
<td>Visc.</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Res.</td>
<td>6.3 @ 80°F</td>
<td>5.5 @ 80°F</td>
</tr>
<tr>
<td>Max. Temp.</td>
<td>160°F</td>
<td>175°F</td>
</tr>
<tr>
<td>Meas. from Top Table</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. Pant</td>
<td>W. Dale</td>
</tr>
</tbody>
</table>

**Diameter of Hole**

7-5/8"

**Remarks**

Standard Device 3rd Curve: 
Long Device 3rd Curve: 

**Resistivity**

<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>NORMAL CURVE</th>
<th>THIRD CURVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100 ohms m²</td>
<td>30</td>
</tr>
</tbody>
</table>

**Self-Potential**

<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>SELF-POTENTIAL (millivolts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>
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.

Address
111 West Ocean Blvd
Long Beach, CA 90802

Operator code
P0250

Type of organization
Partnership

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

Deputy Supervisor
R.K. Baker

Signature
Ken Carlson
Associate Engineer

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></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></td>
<td>7/11/07</td>
</tr>
<tr>
<td>Well records</td>
<td></td>
<td></td>
<td>EDP files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric logs</td>
<td></td>
<td></td>
<td>Computer Files</td>
<td></td>
<td>7/11/07</td>
</tr>
<tr>
<td>Production reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OGD156 (5/98)
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

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

DEC:df

NO BOND REQUIRED

cc: Update
L.A. County Assessor
L.A. County Fire Prevention Bureau
Gary Jones, City of Signal Hill
Pacific Energy Resources

0G159
# Check List - Records Received and Well Status

**Company**: North Coast Energy Resourc

**Well No.**: 1001, 8-2

**API No.**: 1037-027323

**Sec.**, **T.**, **R.**, **B. & M.**: 13, 15, 13, 8-2

**Field**: Wilmington

## Records Received

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td></td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td>11-27-96</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>Dow</th>
<th>Water Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing - Oil</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Idle - Oil</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Abandoned - Oil</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Drilling - Idle</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Abandoned - Dry Hole</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Producing - Gas</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Idle - Gas</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Abandoned - Gas</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Gas - Open to Oil Zone</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Gas Storage</td>
<td></td>
<td>Water Disposal</td>
</tr>
</tbody>
</table>

**DATE**: 10-21-96

**RECOMPLETED**

**REMARKS**

## Engineers Check List

1. Summary, History, & Core Record (dpl.)
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 OGD159 (Final Letter) 11-27-96

## Records Not Approved

**Reason:**

## Records Approved

**RELEASE BOND**

**Date Eligible**

**MAP AND MAP BOOK**

OGD2 (5/96)

**OGD2 (5/96)**
P O Box 16007, Long Beach, CA 90806

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.
RESOURCE AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT ON OPERATIONS

No. T 196-750

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 4889' 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.

DEC:df

cc: Update
Pacific Energy Resources

[Signature]
William F. Guerard, Jr.
State Oil and Gas Supervisor

[Signature]
By R. C. Manuel
For R. K. Baker, Deputy Supervisor
ruwluu - 8-2
view west, 10-21-96
photo: bill f. with r. manuel
Cementing/Plugging Memo

Operator: Pacific Energy Resources  
Well No.: NWLBW 8-2

Field: Long Beach  
County: Los Angeles  
Sec: 13  
T: 4S  
R: 120W  
S.B. B&M

Mr. / Ms. Bill Ensley, representative of the supervisor, was present from 1500 to 1600.

There were also present: J. B. Granger, PRESIDENT

Casing record of well:

The operations were performed for the purpose of:
- 70' 5480'. Augured 61/2" Cem. 5475' - 5456', 5 4/5' - 5065' 3946', 3 400', 2575' - 2177', 70', 5'.
- Pulled GR. 76'.
- 2 Collapsed 3 980'.
- 3 4018' - 4055'.

The plugging/cementing operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug are approved.

Hole size: __________________ fr. __________________ to __________________. Witnessed by __________________.

<table>
<thead>
<tr>
<th>Casing 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 Squeezed Away</th>
<th>Final Press.</th>
<th>Perfs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 5/8&quot;</td>
<td>32</td>
<td>6</td>
<td>4016'</td>
<td>10/16/96</td>
<td>5458'</td>
<td>18'</td>
<td>Annulus n6</td>
<td>Casing 500K</td>
<td>4078' - 5475'</td>
<td></td>
</tr>
<tr>
<td>5 1/2&quot;</td>
<td>19</td>
<td>3950'</td>
<td>10/14</td>
<td>5243'</td>
<td>1529</td>
<td>11</td>
<td>Casing</td>
<td>n-locked up tight</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Casing/tubing recovered: 8 5/8" shot/cut at 70'.

Junk (in hole):

Hole fluid (balled 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>PASS</td>
<td>10/16/96</td>
<td>51</td>
<td>459 3/0'</td>
<td>2575'</td>
<td>Hebein</td>
<td></td>
</tr>
<tr>
<td>72 cy</td>
<td>10/17</td>
<td>132</td>
<td>2177</td>
<td>R. Navis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: (a) 8-26 10/14/96
5 1/2" collapsed 18" c @ 3950'

Cement Plugs

<table>
<thead>
<tr>
<th>Date</th>
<th>Sx./cf</th>
<th>MO &amp; Depth</th>
<th>Placing</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/15/96</td>
<td>18'</td>
<td>459 34'6'</td>
<td>rpted L. Bowen</td>
<td>3406'</td>
<td>2000#</td>
</tr>
<tr>
<td>10/16</td>
<td>15'</td>
<td>2575'</td>
<td>R. Navis</td>
<td>2177'</td>
<td>17'</td>
</tr>
<tr>
<td>10/19</td>
<td>239'</td>
<td>77'</td>
<td>R. Navis</td>
<td>5'</td>
<td>Visual</td>
</tr>
</tbody>
</table>

NOTE: Cased tubing only into 3946'.

PLOTO 3970'(0'0D by D.I.) - conventional rig.
DEFICIENCIES NOTED AND CORRECTED:

1

DEFICIENCIES NOTED AND TO BE CORRECTED:

1

 UNCORRECTABLE DEFICIENCIES:

1

CONTRACTOR:

Fleet Cement, Inc
**BLOWOUT PREVENTION EQUIPMENT MEMO**

**Operator:** Pacific Energy Res.  **Well:** NWC84-52

**Field**  **County**  **Spud Date**

**VISITS:**
1st  **Date**  **Engineer**  **Time**  **Operator's Rep.**  **Title**
2nd

**Contractor:** [Name]  **Rig #:** [Number]  **Contractor's Rep. & Title:** [Name]  **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:**

**Hole size:**

<table>
<thead>
<tr>
<th>CASING RECORD OF BOPE ANCHOR STRING</th>
<th>Cement Details</th>
<th>Top of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td><strong>Weight(s)</strong></td>
<td><strong>Grade(s)</strong></td>
</tr>
</tbody>
</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>Recovery Time (Min.)</th>
<th>Calc. GPM Output</th>
<th>Test Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 1/2</td>
<td>REEDECo.</td>
<td>WET60</td>
<td>1 3/4</td>
<td>3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2 2/3</td>
<td>REEDECo.</td>
<td>WET60</td>
<td>1 3/4</td>
<td>3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ACTUATING SYSTEM**

Accumulator Unit(s) Working Pressure ___ psi

Total Rated Pump Output ___ gpm

Distance From Well Bore ___ ft.

Accum. Manufacturer | Capacity | Precharge
--- | --- | ---
1 | gal. | psi
2 | gal. | psi

**CONTROL STATIONS**

Manifold at accumulator unit
Remote at Driller's station

**EMERG. BACKUP SYSTEM**

N₂ Cylinders

<table>
<thead>
<tr>
<th>No.</th>
<th>L=</th>
<th>Press.</th>
<th>Wkg. Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>3</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>4</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>5</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>6</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

**TOTAL:**

**AUXILIARY EQUIPMENT**

Fill-up Line
Kill Line ___
Control Valve(s) ___
Check Valve(s) ___
Aux. Pump Connect. ___
Choke Line
Control Valve(s) ___
Pressure Gauge ___
Adjustable Choke(s) ___
Bleed Line ___
Upper Kelly Cock ___
Lower Kelly Cock ___
Standpipe Valve ___
Standpipe Press. Gauge ___
Pipe Safety Valve ___
Internal Preventer ___

**HOLE FLUID MONITORING EQUIPMENT**

<table>
<thead>
<tr>
<th>Calibrated Mud Pit</th>
<th>Pit Level Indicator</th>
<th>Pump Stroke Counter</th>
<th>Pit Level Recorder</th>
<th>Flow Sensor</th>
<th>Mud Totalizer</th>
<th>Calibrated Trip Tank</th>
<th>Other:</th>
</tr>
</thead>
</table>

**Alarm Type**

- **Audible**
- **Visual**
- **Class**

<table>
<thead>
<tr>
<th>Hole Fluid Type</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage Pits (Type &amp; Size)</strong></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:**

OGD9 (8/92/GSR1/3M)
permits to conduct well operations

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

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 10/11/96
cc: Update EDP
      Gary Jones/Signal Hill
      Pacific Energy Resources

NO BOND REQUIRED

Engineer: D. E. Curtis
Phone: 310/690-5311

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.
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)
3. Last produced 8/93 5 0 460
   (Date) (Oil, B/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? [XX] Yes
   [ ] No

The proposed work is as follows:

a/ MIRU, install and test BOPE
b/ Cleanout to greatest possible depth
   5465'
c/ Cement from greatest possible depth to 3918' No 3850'
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 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

Telephone Number (310) (Area Code) (Number)

North Side Oil Corp.

[Signature] (Signature)
By Steve Gainer, President
(Dec 96)

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'.
NORTIDE OIL COMPANY
NWLBU 8-2
API No. 037-09793

13''
46# C
130 ft
759

8 5/8''
32 7/36''
130 ft
400 ft

BFW 2225'
Top of cement - C9 - 2911'

3950'
4016' WSO

5 1/2''
cmt
4869' WSO

pentr
4018' - 5475'
5065'
5475' - 5475'
squeezed

5475' TD 5480'
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.:** NWLB 4-2  
**API No.:** 037-09793  
**Sec., T., R., S.B.:** 13, 48, 130, B & M  
**County:** Los Angeles  
**Field:** Long Beach

<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>Producing - Oil</th>
<th>Water Disposal</th>
</tr>
</thead>
<tbody>
<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>
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<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>
</tbody>
</table>

**DATE**

**REMARKS**

**RECORDS NOT APPROVED**

**Reason:**

**RECORDS APPROVED**

**RELEASE BOND**

**Date Eligible**

(Use date last needed records were received.)

**MAP AND MAP BOOK**

**UPDATE CENTER** 5/31/84

**LONG BEACH OFFICE - USE REVERSE SIDE**
History of Oil or Gas Well

Operator: Petro Resources, INC
Well: NWLB 8-2
A.P.I. No.: 037-09793
Date: March 14, 1984

Field: Long Beach
County: Los Angeles
Sec.: 13, T. 4S., R. 13W., SB. B. & M.
Name: Joe D. Rose
Title: Agent
Signature: _______________________

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

Date: 2/14/84 SD @ 4085. Perf 4018-4055 w/4 jhpf.
Date: 2/15/84 Put on production.

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.
Resources Agency of California
Department of Conservation

Division of Oil and Gas

Report on Operations

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

Long Beach, Calif.
March 22, 1984

Your operations at well NWLBU 8-2, API No. 037-09793,
Sec. 13, T48S, R13W S.B. B. & M. Long Beach Field, in Los Angeles County,
were witnessed on 2-15-84. G. Muggelberg, 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; 5½" 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.

Contractor: Graner Oil Co.

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

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

VISITS:
1st Date: 2-15-84
Engineer: G. M. Mielkeberg
Time: 0810 to 0820
Operator's Rep.: Joe Rose

Casing record of well:
13 7/8" cement 761'; 8 1/2" cement 4016' w/50'; 5 7/8" cement 2950' - 5475'; perf 4850' w/50'

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

REQUIRED
BOPE CLASS: II 2/M

Proposed Well Ops: a) Hor casing
Hole size: 8 1/8" hole size
MPSP: 1350 psi

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>

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

BOP STACK

<table>
<thead>
<tr>
<th>TEST DATA</th>
</tr>
</thead>
</table>

ACTUATING SYSTEM

| Accum. Unit(s) Wkg. Press. | psi |
| Total Rated Pump Output | gpm |
| Distance From Well Bore | ft. |

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>gal.</td>
<td>psi</td>
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CONTROL STATIONS

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</thead>
<tbody>
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<td>psi</td>
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</table>

EMERG. BACKUP SYST.

<table>
<thead>
<tr>
<th>N2 Cyl</th>
<th>No.</th>
<th>Type</th>
<th>Press.</th>
<th>Wkg. Fl.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>gal.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>gal.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>gal.</td>
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</tr>
<tr>
<td>5</td>
<td>gal.</td>
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</tr>
<tr>
<td>6</td>
<td>gal.</td>
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</table>

HOLE FLUID MONITORING EQUIPMENT

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

REMARKS:

Hole Fluid Type | Weight | Storage Pits | Water |

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

None

DEFICIENCIES—CORRECTED

0 Low pressure valve on kill line

CONTRACTOR

Graner Oil Co.
PERMIT TO CONDUCT WELL OPERATIONS

Joe D. Rose, Agent
PETRO RESOURCES, INC.
4200 Easton Drive, Suite 16
Bakersfield, CA 94309

Long Beach
February 8, 1984
California

Your proposal to alter casing in well NWLB8-2
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/SM)
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 NWLBX 8-2 (Well designation). 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 Alaminos; Zone in which well is to be recompleted Alaminos

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- (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. Perforate 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
Telephone Number (805) 323-4118

Petro Resources, Inc.

By Joe D. Rose

(Name of Operator) (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>

**Former owner**

Sun Exploration & Production Co.

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

<table>
<thead>
<tr>
<th>Well Number</th>
<th>Well Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NWLBU 5-1</td>
<td>(037-09795)</td>
<td>NWLBU 8-1 (037-09792)</td>
</tr>
<tr>
<td>NWLBU 5-2</td>
<td>(037-00397)</td>
<td>NWLBU 9-3 (037-09791)</td>
</tr>
<tr>
<td>NWLBU 5-3</td>
<td>(037-09796)</td>
<td>NWLBU 9-4 (037-00392)</td>
</tr>
<tr>
<td>NWLBU 5-4</td>
<td>(037-09797)</td>
<td>NWLBU 9-5 (037-00142)</td>
</tr>
<tr>
<td>NWLBU 6-1</td>
<td>(037-09788)</td>
<td>NWLBU 9-6 (037-00393)</td>
</tr>
<tr>
<td>NWLBU 6-2</td>
<td>(037-09789)</td>
<td>NWLBU 8-7 (037-22512)</td>
</tr>
</tbody>
</table>

**Date of transfer,**

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

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

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

**Date**

June 15, 1983

**Reported by**

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

**Confirmed by**


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

PA

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

PA

**Request designation of agent**

Joe D. Rose, same address.

**Deputy Supervisor**

V. F. Gaede

**Signature**

[Signature]

## OPERATOR STATUS ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>PA</td>
<td>Form OGD121</td>
<td>CP</td>
<td>1-1-83</td>
</tr>
<tr>
<td>NPA</td>
<td>Form OGD140</td>
<td>NONE</td>
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</tr>
<tr>
<td>P1</td>
<td>New well cards</td>
<td>CP</td>
<td>1-1-83</td>
</tr>
</tbody>
</table>

**FORM AND RECORD CHECK LIST**

- Map and book
- Notice to be cancelled
- Bond status
- Conservation Committee
- 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 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; 1</td>
<td>037-09792(See)</td>
<td>NWLB 8-1</td>
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<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>
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<td>&quot;Flood Control&quot; 2</td>
<td>037-13525</td>
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<td>&quot;&quot;</td>
<td>6</td>
<td>NWLB 9-6</td>
</tr>
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</table>

RWS:sc

cc: Update Center
EDP
Conservation Committee

M. G. Mefferd
State Oil and Gas Supervisor

By: Richard W. Stoddard
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>Section</th>
<th>Well Name</th>
<th>Location Code</th>
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<tbody>
<tr>
<td>11-4S-13W</td>
<td>&quot;Dominguez&quot; 2-10</td>
<td>(037-11859)</td>
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<tr>
<td>13-4S-13W</td>
<td>&quot;Amebco&quot; 1</td>
<td>(037-09788)</td>
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<td>&quot;Amebco&quot; 2</td>
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<td>&quot;Flood Control&quot; 5</td>
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<td>13-4S-13W</td>
<td>&quot;Pool&quot; 1</td>
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<tr>
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<td>&quot;Dominguez&quot; 1</td>
<td>(037-11858)</td>
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### Description of the land upon which the well(s) is (are) located

**Date of transfer:** Dec. 1, 1978  
**New owner:** Sun Oil Company  
**Address:** 23928 Lyons Avenue, Newhall, CA 91321  
**Type of organization:** Corporation  
**Telephone No.:**

### Former operator

**Confirmed by:**

**New operator**

### Operator Status Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
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<td>PA</td>
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<td>No Potential Active</td>
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<td>PI</td>
<td>Potential inactive</td>
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<tr>
<td>NPI</td>
<td>No Potential inactive</td>
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<tr>
<td>AB</td>
<td>Abandoned or No More Work</td>
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### Form and Record Check List

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<th>Initials</th>
<th>Date</th>
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</table>
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. D. Stockton
Associate Oil and Gas Engineer

ADS:dr
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

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. S. 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:

ob

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

FORM 156

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 11-19-57

Elec. Log ___________ Radio Log ___________
Direct. Surv. ___________ Other Data ___________
Location ____________________________
Elevation _________________________ Clerk ___________
Prod. Repts. ________________ Clerk ___________

COMPLETED PRODUCING ON 10-27-57 ENGINEER

ABANDONED ON __________________________

BOND __________ Release ____ Date Elig. _______ __________
End Prem. year ____ Release Requested ____ Superseded _______

Aband. _______ Redrill ______

HOLD BOND _______ Reason _______________________

Data Needed ___________________________ Alter Csg. __

Final Letter Eng. __ Abandon ______

Receipt For

New Well Records
Subsequent Work
Well Summary (100)
Drillers Log (101)
Core Record (101)
History (101)
Elec. Log ___________
Other ____________
**REPAIR REPORT**

**WELL NO.**
Long Beach
Los Angeles

**FIELD**

**COUNTY**

**SEC**
4-3 T. R. B. & S.B.

**REMARKS**

**NOV 1 9 1959**

<table>
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<td>3480</td>
<td>Plug 5065</td>
<td>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.</td>
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<tr>
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<td></td>
<td>Full tubing. Strung in with 2 5/8&quot; Cavins sand pump and found top of sand fill at 4995'. Ran in 4 1/2&quot; impression block - stopped at 4995'. Tried to break off 8 5/8&quot; production head - unable to do so.</td>
</tr>
<tr>
<td>1</td>
<td>10-23</td>
<td></td>
<td></td>
<td>Gun perforated 5 1/2&quot; casing from 4228 4118' with two 1/2&quot; bullets per foot. Used 8 5/8 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.</td>
</tr>
<tr>
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<td>10-24</td>
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<td></td>
<td>10-25</td>
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<tr>
<td></td>
<td>10-26</td>
<td></td>
<td></td>
<td>Ran 2 5/8&quot; 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'.</td>
</tr>
</tbody>
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---

**NAMES OF DRILLERS/HEAD WELL PULLERS:**

Terminal Drilling Co. - Contractor

---

**DISTRICT ENGINEER**

[Signature]

---

**DIVISION OF OIL AND GAS**

**UNION OIL COMPANY**

**CAMERON OIL AND GAS**

**REPAIR REPORT**

**WELL NO.**

**FIELD**

**COUNTY**

**SEC**

**REMARKS**

**NOV 1 9 1959**

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<td>10-26</td>
<td></td>
<td></td>
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</tr>
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**NAMES OF DRILLERS/HEAD WELL PULLERS:**

Terminal Drilling Co. - Contractor

---

**DISTRICT ENGINEER**

[Signature]
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**PRODUCTION DATA**

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<td>pumping unit.</td>
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<td>22.3</td>
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</table>

**DIVISION OF OIL AND GAS**

**RECEIVED**

**NOV 19 1959**

**INGLEWOOD, CALIFORNIA**

**NAMES OF DRILLERS/HEAD WELL PULLERS:**

Terminal Drilling Co. - Contractor

**VAUGHN L. MAYER**

**DISTRICT ENGINEER**
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" cas. 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 799'
   8-5/8" C 4061' WSO
   111'/6-5/8" H. 4195' ins p. 901' pfw, pulled.
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd 5165-5295', 5229-5245', 5345-5395'.
   Test holes 4869' OK
   Bullet pf 4640-4700', 4835-4845', 4870-4945'.
   Reph. 4915-4945'.

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 4118-4226' 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.

R.C: o.mh
cc Vaughn S. Moyer

E. H. Musser, 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 before work begins; one copy only.


DIVISION OF OIL AND GAS

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' Flug 5065'

2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 4016' WSO
   114'-6-1/2" H 4105' incl. -90' p.s.s., pulled.
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd 5265-5295', 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)

Address one copy of notice to Division of Oil and Gas in district where well is located.

By U. S. Neely, R. W. H.
Vaughn S. Noyes, Division Engr.
<table>
<thead>
<tr>
<th>NO. TOURS</th>
<th>DATE</th>
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<tr>
<td>1</td>
<td>9-10</td>
<td>&quot;</td>
<td>&quot;</td>
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</tbody>
</table>

**CHARGE:** B.R.-A.F.E. 51528 Job 240-9

**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 Nat. - 23.8° - 83.0% 12" above derrick floor.

**ZERO POINT FOR THIS JOB:**

**Casing Record at Start of Work:**
- T.D. 4105' Deepen 5480'
- 13-3/8" C 759'
- 8-5/8" C 4016' WSO.
- 4144' 4-5/8" H 4205' 4-5/8" C 4285' C 4285'

**Casing Record at Completion of Work:**
- T.D. 5480'. Plug 5065'.
- 13-3/8" C 759'. 8-1/2" C 4016' WSO.
- 8144' 4-5/8" H 4285' 4-5/8" 4285' 4-5/8" 4285'
- 4125' 4-5/8" C 5475'. Splice test OK.
- Bullet per & plgd 5265-5205' 5220-5245' 5345-5395'. Test holes 4369' OK.
- Bullet per 4640-4700' 4435-4465' 4570-4945'. Repair 4915-4945'.

**Casing Record at Completion of Work:**

**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 6 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 3910'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.

**Found fluid level at 3905'.**

**WSO & PERFORATING**
- Ran in with McCullough 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 11:15 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 4970'. Fluid level after perforating 3870'.

**Checked fluid at 3840', fill at 5047'. Cleaned cut 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.**

**California Production Service, Contractor**

**VAUGHN S. MOYER, DISTRICT ENGINEER**
**REPAIR REPORT**

**Prod. Hoist - Contract**

**September 26, 1953**

<table>
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<td>Pulled rods &amp; tubing. Ran bailer.</td>
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- **CALIFORNIA PRODUCTION SERVICE**, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3680', no fill. 4" impression block went to bottom - 5065'.

- **PERFORATING**
  
  Ran in with 4" c.d. Lane-Wells 1-2 gun 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 3720' at 10:20 a.m. Perforated from 4835' to 4535' with light to medium gas blow. Perforated from 4700' to 4640' with light to moderate blow. Total holes shot - 400. Fluid level 3480' at 1:50 p.m. Net fluid rise 300'. No fill.

- Checked fluid level at 3445', no fill. Ran tubing and rods. Put well on production. **California Production Service**, Contractor, moved out.

**Well completed mapping in the Brown Zone.**

---

**Names of Drillers/Head Well BRILLERS**

- California Production Service, Contractor.

**Vaughn S. Moyer,**

**District Engineer**
**Oil Operators #2**

**Long Beach**

**Los Angeles**

**13 L-3 13-W S.B.**

**13-1/2**

**Repair Report**

**Production - Cost**

**October 6, 1953**

<table>
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<td>2.5</td>
</tr>
<tr>
<td>24</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Production Data**

**OCT 21 1953**

**Los Angeles, California**

**Note: Ineffective Casing**

Repf 4915-4945*

**District Engineer**

**California Production Service, Contractor**

**Vaughn S. Moyer,**
Report on Test of Water Shut-off

No. T. 153-1095

(BAILING)

Mr. W S Eggleston

Los Angeles 15 Calif. September 16 1953

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 C Bradford, Hoist 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. 7591; 8-5/8" cem. 40161; W.S.O.; 5-1/2" cem. 39501-
54751, perf. 53951-53451, 52451-52201, 52051-51651, four 1/2" holes 48691, W.S.O., plugged with cement 54801-54361 and 54171-50651

Reported total depth 5481 ft. Plugged 5417 ft. to 5065 ft. Cleaned out to 5065 ft. for this test.

Casing test 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 48691.
2. The fluid level was at 39101 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 48691 IS APPROVED.

WCB:ES

cc Long Beach
Mr C F Bowden

R. D. BUSH, State Oil and Gas Supervisor

By A X } Deputy
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. G. Harshbush, Inspector on September 4, 1953. There was also present A. Fowka, Foreman, W. Bradford, Well Puller.

Casing Record 13-3/8" cas. 759'; 8-5/8" cas. 4016'. Junk xxx

W.S.O.: 5-1/2" casing 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 547' to 5065', in the process of plugging back.

The inspector arrived at the well at 3:00 p.m. and Mr. Fowka reported:

1. The hole could not be cleaned out below 547' because of a hard sand plug.
2. On September 3 and 4, 1953, 34 sacks of cement was dumped into the hole beginning at 547'.

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.

GCH:ES

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 [Signature] Deputy
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'
3. Last produced, June 1953 4 B/D (Date) 42.8 (Net Oil) 83.0% (Gravity) (Cut)"

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:OH

cc Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By Deputy

Records Filed 10-21-53 JLW

Mr. C. F. Bowden Div Engineer
Union Oil Co of California
9645 South Santa Fe Springs Rd
WHITTIER California
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

AUG 21 1953  

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  
(Cross out unnecessary words)  

Sec. 13, T. L-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.  

4105' Deepen 5480'  

2. Complete casing record.  

13-3/8" C 759'  
8-5/8" C 4016' W.S.O.  
4105'-6-5/8" K-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  

l B/D 23.8'  
(Net Oil) (Gravity) (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. E. Bender, Division Engineer  

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED.
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.

<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# Bethlehem seamless casing at 5475', including Burns plain liner hanger at top, 275 sacks of Slow Colton cement, Halliburton Cementing Company.</td>
</tr>
<tr>
<td>11-1</td>
<td>5480'</td>
<td>Found top of cement at 5245'. Cleaned out cement to 5456'. Bailed fluid from surface. Could not lower below 1050'.</td>
</tr>
<tr>
<td>11-2</td>
<td>5480'</td>
<td>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'.</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. Henry E. Winton

Date: December 5, 1941  Title: DIVISION ENGINEER

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>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-4</td>
<td>5480'</td>
<td>Plug 5456'</td>
<td>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>
</tr>
<tr>
<td>11-6</td>
<td>5480'</td>
<td>Plug 5456'</td>
<td>Replaced mud with oil and perforated 5-1/2&quot; casing with Lane-Wells gun, 1/2&quot; holes, as follows 5165-5205', 51 holes 5220-5245', 49 holes 5345-5395', 100 holes</td>
</tr>
<tr>
<td>11-7</td>
<td></td>
<td></td>
<td>Ran 5313' 2-1/2&quot; tubing and rods and put on pump. Pumping unit broke after pumping 18 barrels of oil.</td>
</tr>
<tr>
<td>11-8</td>
<td></td>
<td></td>
<td>Repairing pumping unit.</td>
</tr>
<tr>
<td>11-9</td>
<td></td>
<td></td>
<td>Repairing pumping unit.</td>
</tr>
<tr>
<td>11-10</td>
<td></td>
<td></td>
<td>Repairing pumping unit.</td>
</tr>
<tr>
<td>11-11</td>
<td>Production</td>
<td>116 net, 2.5% cut, P 15 hours</td>
<td></td>
</tr>
<tr>
<td>11-12</td>
<td>&quot;</td>
<td>88 net, 23.8° gravity, 2.8% cut, P 24 hours</td>
<td></td>
</tr>
<tr>
<td>11-22</td>
<td>&quot;</td>
<td>74 net, 25.4° gravity, 4.6% cut, P 24 hours</td>
<td></td>
</tr>
<tr>
<td>11-30</td>
<td>&quot;</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.
<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>4800</td>
<td>4802</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>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40317

Los Angeles, Calif. November 7, 1941

Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 48 S., R. 13 W., S. B. & M., Long Beach Field, in Los Angeles County, were witnessed by James T. Garriel, Inspector, on November 4, 1941. There was also present A. G. Hilton, Engineer, and F. Dezmarn, Drilling Foreman.

Casing Record

<table>
<thead>
<tr>
<th>13-3/8&quot; com. 759', 8-5/8&quot; com. 4016'</th>
<th>Junk None</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. S. 0; 5-1/2&quot; com. 3950' - 5475', T. D. 5480'</td>
<td>plugged with cement 5480' - 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 Slow 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 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.

cc: H. E. Winter

Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Mussner
Deputy
Mr. W. S. Eggleston,

Los Angeles, Calif.

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 2, Section 13, T. 4 S., R. 13 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 cmt. 759
2-5/8 cmt. 4016 0.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 - 1441 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. E. Winter
Long Beach
ADH10H

R. D. BUSH
State Oil and Gas Supervisor

By L. H. Messer, 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 perforating at well No. Oil Operators #2, Sec. 15, 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
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 4S, R. 13 W. 2d. M., as herewith enumerated by well numbers.

R. D. BUSH, State Oil and Gas Supervisor

[Signature]

Deputy
History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA  Field: LONG BEACH

Well No. OIL OPERATORS 2, Sec. 13, T. 4-S, R. 15-N, S.B. B. & M.

Date: Jan. 11, 1938  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 dyamitzed, give data, 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 Start of Work:**

- **1937**
  - **Depth:** 78
  - **Remarks:** Spudded in and drilled with 17" rotary bit.

- **11-13**
  - **Depth:** 781
  - **Remarks:** Drilled with 17" rotary bits to 761'. Cemented new 13-3/8" 45.37# National seamless slipjoint casing at 750' with 350 bx Nonolth Velo cement. Cementing operations witnessed and approved by Stolz, of Division of Oil & Gas.

- **11-19**
  - **Depth:** 1070
  - **Remarks:** Found top of cement at 747'. Cleaned out cement and plugs and drilled ahead with 12-1/4" bits.

- **12-2**
  - **Depth:** 3859
  - **Remarks:** Drilled with 12-1/4" bits to 3859'. Ran Schlumberger Survey.

- **12-5**
  - **Depth:** 4034
  - **Remarks:** Drilled with 12-1/4" bits to 3965' and cored with 7-5/8" core barrels to 4034'. Ran Schlumberger Survey. Reamed out core hole with 12-1/4" bit to 4016'. Cemented 8-5/8" 32#/ Grade "C" (1963' of 36#/ Grade "C" on bottom) 8-thread rounded seamless casing at 4016' with 400 bx cement (200 bx Victor oil well and 200 bx Victor construction).

- **12-10**
  - **Depth:** 4075
  - **Remarks:** Found top of cement at 3993'. Drilled out cement and plugs to 4016 and cleaned out to 4021. Water shut off test on 8-5/8" casing at 4016 witnessed and approved by Stolz, of Division of Oil & Gas. Drilled and cored to 4075'.

- **12-12**
  - **Depth:** 4106
  - **Remarks:** Cored to 4105. Ran Schlumberger Survey. Landed 114' of 6-5/8" 23#/ Grade "C" casing at 4105', including 90' of 12-3/4 120-mesh Kobe perforated on bottom. Bailed to 1200' and well started flowing by heads.

- **12-14**
  - **Depth:** 4105
  - **Remarks:** Bailed hole clean of mud and sand. Landed 3" upset tubing at 3649', Ran rods and installed pumping unit. Put well on pump 5:00 P.M. 12-14-37.
**Division of Oil and Gas**

**History of Oil or Gas Well**

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

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

Signed: Henry L. Winter

**Date:** Jan. 11, 1936  
**Title:** District Engineer

(Date) (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 or 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 data, 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>Gross</th>
<th>Net</th>
<th>Gross</th>
<th>Net</th>
<th>Status</th>
<th>Depth</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>P 10</td>
<td></td>
<td></td>
<td></td>
<td>On pump 5:00 P.M.</td>
</tr>
<tr>
<td>12-16</td>
<td>873</td>
<td>592</td>
<td>&quot;</td>
<td>1.9</td>
<td>&quot;</td>
<td></td>
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<tr>
<td>12-17</td>
<td>1705</td>
<td>1625</td>
<td>&quot;</td>
<td>1.8</td>
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<td>12-18</td>
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<td>7.5</td>
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<tr>
<td>12-19</td>
<td>356</td>
<td>220</td>
<td>23.8</td>
<td>39.0</td>
<td>F 6</td>
<td>34/34&quot;</td>
<td>260</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>12-20</td>
<td>1482</td>
<td>1402</td>
<td>&quot;</td>
<td>6.4</td>
<td>F 24</td>
<td>&quot;</td>
<td>330</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>12-21</td>
<td>1189</td>
<td>1109</td>
<td>&quot;</td>
<td>1.3</td>
<td>F 24</td>
<td>&quot;</td>
<td>320</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>12-22</td>
<td>984</td>
<td>974</td>
<td>&quot;</td>
<td>1.0</td>
<td>&quot;</td>
<td></td>
<td>300</td>
<td>510</td>
<td></td>
</tr>
<tr>
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<td>25</td>
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</table>

No daily gas  
Dec gas 18,573 MCF
LOG OF OIL OR GAS WELL

Operator: Union Oil Company of California  Field: Long Beach

Well No.: Oil Operators B  Sec. 13, T. 4-6, R. 13-W, S.B. B. & M. 623' W'ly along the center line of Hilby Road projected from the center of the Location: Pacific Electric Railway Right of Way and thence 46' W'ly at 90° Elevation 56.97

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 Winter

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


Total depth 4105'  Plugged depth

Junk

Wilmington shale  3597-3662
Alamitos shale  3795-3860
“T”  3982
“1”  4017

Committed producing Dec. 14, 1937  Flowing/gas/pumping 1st 4 days (date)  (cross out unnecessary words)

<p>| Clean Oil  | Gravity  | Per Cent Water | Gas  | Taking  | Casing |</p>
<table>
<thead>
<tr>
<th>bbl. per day</th>
<th>Clean Oil</th>
<th>including emulsion</th>
<th>Mcf. per day</th>
<th>Pressure</th>
<th>Pressure</th>
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<tr>
<td>854</td>
<td>23.8</td>
<td>1.7</td>
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<tr>
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<td>23.8</td>
<td>1.0</td>
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<td>25</td>
<td>270</td>
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</table>

Production after 90 days

Casing Record (Present Hole)

<table>
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<tr>
<th>Size of Casing (A. F. 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 it through perforations</th>
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<tr>
<td>12-3/8</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>
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<tr>
<td>8-5/8</td>
<td>4015</td>
<td>Surface</td>
<td>32/4 &amp; 36/4</td>
<td>New</td>
<td>Sm1s.</td>
<td>&quot;G&quot;</td>
<td>12-1/4&quot;</td>
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<tr>
<td>6-5/8</td>
<td>4105</td>
<td>3091</td>
<td>26/4</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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</thead>
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<tr>
<td>6-5/8</td>
<td>4015</td>
<td>4105</td>
<td>120 mesh</td>
<td>16</td>
<td>6</td>
<td>Kobe</td>
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Electrical Log Depths: Schlumberger from 759 to 4104. (Attach Copy of Log)
## FORMATIONS PENETRATED BY WELL

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<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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**Operator:** UNION OIL COMPANY OF CALIFORNIA  
**Field:** LONG BEACH
### Formations Penetrated by Well

<table>
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<tr>
<th>Depth To</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
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<td>4105</td>
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<td>Drilled</td>
<td>Shale and sand</td>
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<td>101</td>
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<td>Sand and hard shale</td>
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<td>76</td>
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<td>Shale (Note: see supplementary sheet record)</td>
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<td>Sand and shale taken between 4800-4802</td>
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No cores taken.
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<th>FROM</th>
<th>TO</th>
<th>TOTAL RECY.</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>12/3</td>
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<td>7-5/8&quot; Standard</td>
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<td>3983</td>
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<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 4.5 from top. Dip 25°</td>
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<td>12-4</td>
<td>2</td>
<td>7-5/8&quot; Standard</td>
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<td>13.0</td>
<td>6.9</td>
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<td>2.8</td>
<td>Hard dark brown shale, sandy in spots. Fractures of 35° and 37°. Soft fine brown oil sand. Good odor. Hard dark brown shale. Top 0.2 badly fractured. Firm, soft, medium brown oil sand. Shale parting in top 0.2. Hard dark brown shale. Fracture of 43°. Firm soft fine to medium brown oil sand. Hard dark brown shale.</td>
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Total: 12.7
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<th>DATE</th>
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<th>DRILLER SIZE &amp; TYPE BARNELL</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL RECY.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
<th>APPT. DIP</th>
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<td>Firm soft fine to medium brown oil sand</td>
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<td>Firm soft fine dark brown argillaceous oil sand. Partings of dark brown shale</td>
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<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
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<td>Hard dark brown silty shale with streak of fine brown oil sand</td>
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Total depth 4105 ft.
STATE OF CALIFORNIA
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. Stols, designate 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. Kewish, 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 at 4016 ft. with 400 sacks Victor oil well and cement by casing method.

Water string was landed in 12½" rotary. Still, rotary or cable tool.

Casing record of well 13-3/8" cem. 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 was XX ft. and bailer brought up sample of XXXXX at Sea below: See below.

At Sea below oil bailed to XXXX ft., drilling fluid bailed swabbed to XXX ft.

Time and date of oil found at XXXX ft., top of fluid found at XXXX 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 ft. 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 815 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 ft. of medium drilling fluid and 1890 ft. 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 E. Fagelum, Deputy

cc- H. E. Winter
Long Beach
FCS:CH
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 Duxby 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

[Date: 11/24/37]
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. Winter
District Engineer.
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. 48S., R. 13W., S. E. 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. Rewish, Drilling Foreman.

Casing Record 13-3/8" cam. 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" - 25.97 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

R. D. BUSH
State Oil and Gas Supervisor

By E. [Signature] 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. 1/2 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 530' W'ly along center line of San Antonio from the center line of Del Mar and thence 115' W'ly at right angles 56.37'.
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

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<tr>
<th>Size</th>
<th>Weight</th>
<th>New or Second Hand</th>
<th>Depth</th>
<th>Landed or Cemented</th>
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<tr>
<td>13-3/8</td>
<td>46</td>
<td>New</td>
<td>700'</td>
<td>Landed</td>
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<td>8-5/8</td>
<td>36</td>
<td>New</td>
<td>4000</td>
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<td>6-5/8 Perforated liner</td>
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<td>New</td>
<td>4100</td>
<td>Landed</td>
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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
WJO:OH

* 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

By [Signature]
Deputy
Notice of Intention to Drill New Well
This notice must be given before drilling begins

General Exploration Co.
Santa Fe Springs, Cal.

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. 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 Sixty Road projected from the center line of the Pacific Electric Railway Right of Way and thence 50 ft. willy along center line of San Antonio from the center line of Del Mar and thence 1151. W. N. W. at right angles.

The well is 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>
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<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>
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<tr>
<td>13-3/8</td>
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<tr>
<td>8-5/8</td>
<td>36</td>
<td>New</td>
<td>4000'</td>
<td>Cmted.</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

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

By:
District Engineer

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED
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 NWLB 8-5
(Name and number)
A.P.I. No. 037-22295
Section 13
T. 4S
R. 13W
S. D., 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

R. A. YBARRA
Deputy Supervisor

OG159 (10/80/BM)
**DIVISION OF OIL AND GAS**

**CHECK LIST - RECORDS RECEIVED AND WELL STATUS**

**Company:** Sun Oil Company  
**Well No.: MEB 8-5**

**API No.: 032-22295**  
**Sec.: 13 T. 4 S., R. 13 W., S.B. B&M.**

**County:**  
**Field:** Long Beach

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>9-1-81 (2)</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td>9-2-81 (2)</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>
</tbody>
</table>

**STATUS**

| Status |  
| Producing - Oil |  
| Idle - Oil |  
| Abandoned - Oil |  
| Drilling - Idle |  
| Abandoned - Dry Hole |  
| Producing - Gas |  
| Idle - Gas |  
| Abandoned - Gas |  
| Gas-Open to Oil Zone |  

**STATUS**

| Status |  
| Water Disposal |  
| Water Flood |  
| Steam Flood |  
| Fire Flood |  
| Air Injection |  
| Gas Injection |  
| CO2 Injection |  
| LPG Injection |  

**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. "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  
   Form OGD159 (Final Letter)  
   Form OGD150b (Release of Bond)
4. Duplicate logs to archives
5. Notice of Records due (F-OGD170)

**UPDATE CENTER:** 10-14-81

**Surface Map & Letter 7, No.**

---

**RECORDS NOT APPROVED**

**Reason:** Need Surface Map

**RECORDS APPROVED**

**RELEASE BOND**

**Date Eligible**

(Use date last needed records were received.)

**MAP AND MAP BOOK**

81-4965

**LONG BEACH OFFICE - USE REVERSE SIDE**
WELL SUMMARY REPORT

Operator: SUN OIL COMPANY (Delaware)  
Well: NWLB 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 from 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: 8/20/81

Commenced producing (date): N/A

Flowing:  
Pumping:  
Gas lift:  
Name of producing zone(s): Lower Alamitos

Total depth

<table>
<thead>
<tr>
<th>Depth measurements taken from top of:</th>
</tr>
</thead>
</table>
| ☑ Derrick Floor  
| ☑ Rotary Table  
| ☒ Kelly Bushing  

Which is ± 10 feet above ground

GEOLOGICAL MARKERS

FORMATION AND AGE AT TOTAL DEPTH

Brown

Current effective depth: N/A

Present Junk: None

Initial Production: N/A

Production After 30 days: 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>

Casing Pressure

Tubing Pressure

Gravity Clean Oil

Percent Water including emulsion

Gas (Mcf per day)

Caseload Pressure

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: 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. B. CARROLL, JR. Title Agent
Date 9/2/81 Signature F. Carroll

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 DR & DEL MAR AVE; BBL: 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 ARN 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 RH w 12½" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD
ON 13-3/8" CSG HD/INST & TST BOE TO 1000 PSI, OK/MU BHA & RTH/
MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/RH w 12½" 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 DRL
12½" HOLE FRM 1239-1768/SURV @ 1692 9½' M 40°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 DRL 12½" HOLE FRM 1768-2062/
SURV @ 2031 10°30' N 37°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 DRL/DRLG 12½" HOLE FRM 2062-2498/
SURV @ 2488 13°45' N 32°W/TVD 2469.26/SEC.176.82/N-154.17/W-105.73/
MW 68/VIS 37/
8/6 2760 SD SH 5 (262) DRLG/DRLG & DYN 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

NWLBU #8-5
Sec.13,T13,R4S,SBB&M

1981

8/8  3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL TOOL JTS/DRL 12½" HOLE FRM 337-3524/SURV @ 3518' 60'30"/N 00'30" 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 50'30" E/TVD 3900.77/SEC.406.94/N-384.81/W-135.14/MW 69/VIS 38/

8/10 3940 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 40'30"/N 20'30" 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 30'30" E/TVD 4349.88/SEC.433.32/N-412.11/W-135.46/MW 69/VIS 37/

8/12 4432 PREPNG 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' 10'30", 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) REMAIN/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/PV TO 4790; PIPE STUCK/WRK STUCK DP & PMP TOT OF 1700 BBEIS MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTEMPT TO FILL HOLE; COULD NOT FILL/ MURU 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/BJM JT COVERD w CMT/MU FISHING TOOLS & RIH w OVERTHOT, 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/PUSHED 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 PARTED/MW 70/VIS 85/

8/18 4965 POH w IB/RIG UP DIA LOG & RUN CSG INSPI LOG/CSG PARTED @ 544/ RIH w 1 CONE 12½" BIT, UNABIL 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/
1981

8/19 4965 PREPNG TO PMP TEMP BLOCK "60" PILL/RIH OPN ENDED TO 544'/
      MIX & PMP 300 BBL/ OF LCM, 200 BBL/ w 27#/ PER BBL OF LCM, 100 BBL/ w 15-17#/ PER BBL OF LCM, NO RTNS/RIH w 10½" IB w 12½ STAB ABOV IT,
      TO 544/IB SHOWS CSG IS 5½" 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, ATTEMPT TO FILL HOLE, HOLE WD NOT FILL/RIH TO 518,
      PMP 30 BBL/ 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/GRD CMT PLUG @ 301, WITNESS & APPRVD BY
      D.O.G./SPOT CMT FRM 181-SURF/PULL BOP, CUTOFF WEL HD & CSG 5' BELOW
      GRN D 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, T45 S., R. 13W., S.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. YBARBA
DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator: Sun Oil Company
Well No.: NWLBW 8-5
API No.: 037-22295
Field: Long Beach, County: Los Angeles
Sec.: 13, T.: 45, R.: 13W, SE 1/4 B&M
Mr. GW Stark, representative of the supervisor was present from 0810 to 0940.
Casing record of well: 20" cemented, 13 3/8" cemented, parted at 548', Junk below 648', TD 4965', plugged w/ cement 548' to 101', @ 185', 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. Top</td>
<td>Bottom Date</td>
<td>MO-Depth</td>
<td>Volume</td>
<td>Annulus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</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#pcf Vis 50 W lost circulation material added.

Cement Plugs

<table>
<thead>
<tr>
<th>Date</th>
<th>Sx./cf</th>
<th>MO &amp; Depth</th>
<th>Time</th>
<th>Engr.</th>
<th>Depth</th>
<th>Wt/Sample</th>
<th>Date &amp; Time</th>
<th>Engr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/19</td>
<td>500 Sx</td>
<td>DP @ 548</td>
<td>9/20</td>
<td>GW St</td>
<td>301'</td>
<td>all std</td>
<td>8-21-81 0730</td>
<td>GW St</td>
</tr>
<tr>
<td>8/21</td>
<td>100 Sx</td>
<td>DP @ 185</td>
<td>9/10</td>
<td>GW St</td>
<td>8'</td>
<td>Visceral</td>
<td>8-21-81 0940</td>
<td>GW St</td>
</tr>
</tbody>
</table>

OGD10 (2-75-GSR1-6M)
Deficiencies corrected
none

Deficiencies to be corrected
none

Contractor: Atlantis 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.

Ho: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. 45 S., R. 13 W., 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, 1½/sx Floclete, & 2% CaCl₂
3. Tag TOC @ 440' or higher
4. Spot column of 60PCF 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
By: L.B. CARROLL, JR., 8-20-81
Type of Organization: Corporation (Corporation, Partnership, Individual, etc.)

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, 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. 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: [Signature]
Deputy Supervisor

R. A. YBARRA

OG109(12-80-15)(M)
DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: Sun Oil Company
Well: NWLBU 8-5
Field: Long Beach
County: Los Angeles

VISITS: Date Engineer Time Operator's Rep. Title
1st 8-1-81 M.E. Brown 0600 to 1000 D. Rodgers DF
2nd 8-1-81 " " 100 to 1300 " " "

Casing record of well: 20" Cem 5K; 13 3/8" Cem 662'; TD 665'

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

Proposed Well Ops: drill __________________________ MPSP: __________ psi

REOUIRED BOPE CLASS: III B 2 M

Hole size: 24" fr. 0' to 20', 17 3/8" to 665' &

<table>
<thead>
<tr>
<th>CASING RECORD (BOPE ANCHOR STRING ONLY)</th>
<th>Cement Details</th>
<th>Top of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Weight(s)</td>
<td>Grade(s)</td>
</tr>
<tr>
<td>13 3/8&quot;</td>
<td>48#</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOP STACK</th>
<th>TEST DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12 Hyd/1</td>
</tr>
<tr>
<td>B</td>
<td>12 Hyd/1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTUATING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accum. Unit(s)</td>
</tr>
<tr>
<td>Total Rated Pump Output</td>
</tr>
<tr>
<td>Distance to Bore</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hyd/1</td>
<td>80 gal.</td>
<td>750 psi</td>
</tr>
<tr>
<td>2</td>
<td>Hyd/1</td>
<td>2 gal.</td>
<td>psi</td>
</tr>
</tbody>
</table>

CONTROL STATIONS
- Elec. Hyd.
- manifold at accum. unit
- remote from Driller's station

EMERG. BACKUP SYST. | Press. | Wkg. Fl.
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N2 Cyl No:</td>
<td>Type:</td>
</tr>
<tr>
<td>Other:</td>
<td>22400 gal.</td>
</tr>
<tr>
<td></td>
<td>32400 gal.</td>
</tr>
<tr>
<td></td>
<td>1 gal.</td>
</tr>
<tr>
<td></td>
<td>1 gal.</td>
</tr>
</tbody>
</table>

HOLE FLUID MONITORING EQUIPMENT | Alarm | Class |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>Aud. Vis.</td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td></td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td></td>
</tr>
<tr>
<td>Pressure Gauge</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>
</tbody>
</table>

REMARKS:

Hole Fluid Type: Clay base mud
Weight: 9.5# Storage Pits: 270 Bbl.
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 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

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,

(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.
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 (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 V. A. Ybarra, Deputy Supervisor

OGD165 (8-75-GSRI-3M)
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, S.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 763 feet West (Direction) (Direction) at right angles to San Antonio Drive & Del Mar Avenue 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: 415 593 South and 439 115 East West feet feet (Direction) (Direction) 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 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>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.

<table>
<thead>
<tr>
<th>Name of Operator</th>
<th>SUN OIL COMPANY (DELWARE)</th>
<th>Type of Organization (Corporation, Partnership, Individual, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>23928 LYONS AVENUE</td>
<td>CORPORATION</td>
</tr>
<tr>
<td>Phone Number</td>
<td>805/259-244D</td>
<td></td>
</tr>
<tr>
<td>Name of Person Filing Notice</td>
<td>L. B. CARROLL</td>
<td>Signature</td>
</tr>
<tr>
<td>Name of Person Filing Notice</td>
<td>L. B. CARROLL</td>
<td>Date</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>FOR DIVISION USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>District review of environmental document (if applicable)? Yes [ ] No [ ]</td>
</tr>
<tr>
<td>Remarks:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

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*

**C.E.Q.A. INFORMATION**

<table>
<thead>
<tr>
<th>EXEMPT □</th>
<th>NEG DEC □</th>
<th>E.R □</th>
<th>DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION □</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>S.C.H. NO.</td>
<td>S.C.H. NO.</td>
<td></td>
</tr>
</tbody>
</table>

See Reverse Side

**FOR DIVISION USE ONLY**

<table>
<thead>
<tr>
<th>MAP BOOK</th>
<th>CARDS</th>
<th>BOND</th>
<th>FORMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>121</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 site 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.

*(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>
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<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**

*(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, Partnership, Individual, etc.)**

**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**

11/25/80

**DISTRICT ENGINEER**

257-4702

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.

May 26 12 51 PM, 80
Received
REPORT ON PROPOSED OPERATIONS

[Company Address]

[Address]

[City], California

[Date]

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.

[Signatures]

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. 1831-22195, 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

534 feet North along section property line and 767 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 X

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

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>
<thead>
<tr>
<th>SIZE OF CASING INCHES API</th>
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<th>GRADE AND TYPE</th>
<th>TOP</th>
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<td>K-55</td>
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<td>36#</td>
<td>K-55 &amp; S-80</td>
<td>Surface</td>
<td>5900'</td>
<td>5900'</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 @ 4315' TVD, Brown @ 4730' TVD. Estimated total depth 5860' TVD. Name, depth, and expected pressure Press plunger 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

Telephone Number: 805/259-2440

Name of Person Filing Notice: L.B. CARROLL, JR.

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.

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 NWLU 8-5
(Name and number)
A.P.I. No. 037-22295 Section 13 T. 4S R. 13W S. B. 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
R. A. Ybarra
Deputy Supervisor

OG159 (10/80/BM)
DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company: Sun Oil Company
Well No. 8-5

API No. 032-22295 Sec. 13 T. 4S, R. 13W, S.B. B.M.
County:
Field: Long Beach

RECORDS RECEIVED       DATE
Well Summary (Form OG100) 9-4-81
History (Form OG103) 9-4-81
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
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. "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) 8-2-81
5. Form OGD150b (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 sewer info

RECORDS APPROVED

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

MAP AND MAP BOOK

81-4965

LONG BEACH OFFICE - USE REVERSE SIDE
WELL SUMMARY REPORT

Operator: SUN OIL COMPANY (Delaware)  
Field: Long Beach  
Well: NWLBU #8-5  
County: Los Angeles  
Sec.: 13  
T.: 4 S  
R.: 13 W  
B.&M.: SB  

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 (permanently plugged & abandoned) P&A:
8/20/81

Commenced producing (date):
N/A

Flowing  
Pumping  
Gas lift

Name of producing zone(s):
Lower Alamitos

Present effective depth:
Junk

Depth measurements taken from top of:
Which is ± 10 feet above ground:
Kelly Bushing

GEOLOGICAL MARKERS  
DEPTH

Formation and age at total depth:
Brown

Initial Production:
Clean Oil (bbl per day): N/A
Gravity Clean Oil:
Percent Water including emulsion:
Gas (Mcf per day):
Tubing Pressure:
Casing Pressure:

Production After 30 days:

CASING RECORD (Present Hole)

Size of Casing (API):
13 3/8"
Top of Casing:
662'
Depth of Shoe:
48#
Weight of Casing:
K-55
Grade and Type of Casing:
New or Second Hand:
17 1/2"
Size of Hole Drilled:
903 Sacks
Number of Sacks or Cubic Feet of Cement:
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: 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, Sec13, T4S, R13W, SB, B & M
A.P.I. No.: 037-22295  Name: L. B. 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 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 PMP/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/HALLB 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 @ 665½'/MW 70/VIS 47/

8/3  8-1/665 SD SH R1H w 12½" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD
ON 13-3/8" CSG HD/INST & BST BOE TO 1000 PSI, OK/MU BHA & R1H/
MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/R1H w 12½" 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 & DYNA DRL
12½" HOLE FRM 1239-1768/SURV @ 1692 9°15' N40°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

NWLBU #8-5
Sec.13,T13,R4S,SBB&M

1981

8/8 3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL
TOOL JTS/DRL 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 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 PREPNG 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’, NO9°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) ATTPMT 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 BBLs MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTPMT TO FILL HOLE; COULD NOT FILL/
MIRU DIA-LOG/RN 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 TO 688 TO TOP OF FISH @
638/C SDS TO TOP OF FISH @ 638 TO NO RTNS/ATTPMT TO GET OVR FISH;
PUSH FISH DN HOLE/CK TO SEE FISHING TOOLS FREE, OK/TOP OF FISH @
726; BMT @ 4878/MW 70/VIS 70/

8/17 4965 SD SH FISHING DP/ATTPMT 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/STPD @ 870 TO
RTNS/ATTPMT 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 INSPEINS/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

NWLBU #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 BBLs 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 BBLs OF TEMP BLOCK 61 @ 518/POH
WAIT 2 HRS, ATTEMPT 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/1D 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/PULL BOP,CUT OFF WELL HD & CSG 5' BELOW
GRND LEVEL/RIG DN RIG PREP TO MOVE TO NWLBU #8-7/
DIVISION OF OIL AND GAS

Report on Operations

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, T4S, R. 13W, 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.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

GWS: dh

cc: Update
EDP

M. G. MELFORD
State Oil and Gas Supervisor

By
Deputy Supervisor

R. A. Ybarra
DIVISION OF OIL AND GAS  
Cementing/Plugging Memo

Operator Suow Oil Company  Well No. NWLB1 8-5
API No. 037-22295  Sec. 13, T. 45, R. 15W, 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" cement, 18\(\frac{1}{4}\)" cement, 662, parted @ 544', Junk below 648', TD 4965', plugged w/ cement 548' to 301', @ 185' - 81'.

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 Date</td>
<td>MO-Depth</td>
<td>Volume</td>
</tr>
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</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 vis 50 Wt'st circulation material Added. |

Cement Plugs  Placing  Placing Witnessed  Top Witnessed

<table>
<thead>
<tr>
<th>Date</th>
<th>Sx./cf</th>
<th>MO &amp; Depth</th>
<th>Time</th>
<th>Engr.</th>
<th>Depth</th>
<th>Wt/Sample</th>
<th>Date &amp; Time</th>
<th>Engr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/20/81 500 sx</td>
<td>DP @ 548</td>
<td>8/20/81</td>
<td>Reported by Rodgers.</td>
<td>301' all @ wf</td>
<td>8-21-81 0830</td>
<td>GW Stark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/21/81 100 sx</td>
<td>DP @ 185</td>
<td>0910</td>
<td>GW Stark</td>
<td>8' visual</td>
<td>8-21-81 0940</td>
<td>GW Stark</td>
<td></td>
<td></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 NWLBU 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.

HO: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, 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, ½#/sx Flocoleite, & 2% CaCl2
(3) Tag TOC @ 440' or higher
(4) Spot column of 60PCF 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: /s/ (Name of Operator) L. B. Carroll, Jr. (Date) 8-20-81
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

OG108 (12-73-GSR1-15M)
RECEIVED
Aug 21 2:33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.
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.4S. R.13E, S., E., B., B., & M., Long Beach Field, in Los Angeles County, were witnessed on 8-1-81. 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:** NWLB4-8-5  
**Field:** Long Beach  
**County:** Los Angeles

**VISITS:**  
1st 8-1-81  
2nd 8-1-81  
Casing record of well: 20" Cem 56; 13 3/8" Cem 662 ' TD 665'

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation.  
**DECISION:** The blowout prevention equipment and installation are approved.

**Proposed Well Ops:** drill  
**MSPD:** psi  
**Hole size:** 24 " fr. 0 ' to 20 ', 17½" to 665 ', & 665' to  

---

**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>Cement Details</th>
<th>Top of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 3/8</td>
<td>48# I-A</td>
<td>662</td>
<td>USG</td>
<td>did not bump plug</td>
<td>5423 0</td>
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**BOP Stack**

<table>
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<tr>
<th>API Symb.</th>
<th>Ram Sz.</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>
<th>Test Date</th>
<th>Test Press</th>
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<tbody>
<tr>
<td></td>
<td>12</td>
<td>123</td>
<td>6K</td>
<td>12</td>
<td>3000</td>
<td>8/11/1200</td>
<td>1200</td>
<td>5520</td>
<td></td>
<td>1200</td>
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<td></td>
<td>8/1/91</td>
<td>1300</td>
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<td>Shiner</td>
<td>12</td>
<td>3000</td>
<td>8/1/91</td>
<td>1300</td>
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<td>0</td>
<td>0</td>
<td>Gulfshaler</td>
<td>12</td>
<td>3000</td>
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<td>1200</td>
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<td>1200</td>
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**ACTUATING SYSTEM**

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<tr>
<th>Accum. Unit(s)</th>
<th>Wkg.</th>
<th>Press. 1500 psi</th>
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<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
<td></td>
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<tr>
<td>Distance From Well Bore</td>
<td>ft.</td>
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**CONTROL STATIONS**

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<thead>
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<tbody>
<tr>
<td>1</td>
<td>60 gal.</td>
<td>750 psi</td>
</tr>
<tr>
<td>2</td>
<td>200 gal.</td>
<td>750 psi</td>
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</table>

**EMERG. BACKUP SYST.**

<table>
<thead>
<tr>
<th>N2 Cyl No:</th>
<th>Tpe:</th>
<th>Press. Wkg.Fl.</th>
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</thead>
<tbody>
<tr>
<td>1200</td>
<td>gal.</td>
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**AUXILIARY EQUIPMENT**

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<tr>
<th>No. Sz.</th>
<th>Rated Press.</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill-Up Line</td>
<td>2&quot; 3000</td>
<td>x 1200</td>
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<tr>
<td>Kill Line</td>
<td>3&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td>1</td>
<td>1200</td>
</tr>
<tr>
<td>Check Valve(s)</td>
<td>1</td>
<td>1200</td>
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<td>Auxil. Pump Connec.</td>
<td>1</td>
<td>1200</td>
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<tr>
<td>Choke Line</td>
<td>2&quot; 3000</td>
<td>x 1200</td>
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<tr>
<td>Control Valve(s)</td>
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<td>1200</td>
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<td>Pressure Gauge</td>
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<td>1200</td>
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<tr>
<td>Adjustable Choke(s)</td>
<td>2&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Bleed Line</td>
<td>2&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Upper Kelly Cock</td>
<td>3&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Lower Kelly Cock</td>
<td>3&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Standpipe Valve</td>
<td>3&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Standpipe Pressure Ga.</td>
<td>3&quot; 3000</td>
<td>x -</td>
</tr>
<tr>
<td>Pipe Safety Valve</td>
<td>4&quot; 3000</td>
<td>1200</td>
</tr>
<tr>
<td>Internal Preventer</td>
<td>4&quot; 3000</td>
<td>-</td>
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</table>

**HOLE MONITORING EQUIPMENT**

<table>
<thead>
<tr>
<th>Monitored</th>
<th>Alarm Class</th>
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<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>Aud. Vis. A</td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td>x</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td>x</td>
</tr>
<tr>
<td>Pit Level Recorder</td>
<td>x</td>
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<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>
</tbody>
</table>

**REMARKS:**

Hole Fluid Type: Clay base mud  
Weight: 9.5#  
Storage Pits: 270 bl.
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  AtlanticOil Co
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: Hermann Dick

for: R. A. Ybarra
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,

(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.

Write on form OGD 165

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

Sun Oil Company (Delaware)

(type of Organization Corporation)

By L. B. Carroll, Jr. 6/8/81

Signature L. B. Carroll, Jr.
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.)
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: Proposed coordinates from surface location @ TD 393' S & 439' E

HO/bd

cc: Update Center - EDP
Sun Oil Co.

State Oil and Gas Supervisor

By Y. A. Ybarra, Deputy Supervisor

OGD165 (8-75-OSRI-3M)
**CORRECTED COPY**

**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 **X** 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 San Antonio Drive & Del Mar Avenue 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** **X** **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. **Correction dated 6/21/61**

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: **L. B. Carroll**

Date: **11-25-60**

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

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.
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, 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 and line from the corner of Section property X 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>CALCULATED FILL BEHIND CASING</th>
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<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, Partnership, Individual, etc.)

**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**

**A. 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-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.

Received
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. field, Old area, oil 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.

M. C. 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.
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. 037-22,95, 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)

- See Attached -

Do mineral and surface leases coincide? Yes XX No X If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of 534 feet North along section property line and 767 feet West (Direction) (Cross out one) (Cross out one)

at right angles from the intersection of San Antonio Drive & Del Mar Avenue

Is this a correct well according to the definition on the reverse side of this form? Yes X No XX

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

324 feet South (Direction) 415 feet East

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>
<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>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 Alaminos @ 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) Corporation

Address: 23928 Lyons Avenue City: Newhall, California

Telephone Number: 805/259-2440 Name of Person Filing Notice: L. B. CARROLL, JR.

Signature: L. B. Carroll (by mgm) 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.

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
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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.
<table>
<thead>
<tr>
<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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<tbody>
<tr>
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<td>2725.1</td>
<td>-2669.1</td>
<td>255.0 N</td>
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<tr>
<td>2848</td>
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<td>2816.8</td>
<td>-2760.8</td>
<td>275.5 N</td>
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<td>2938</td>
<td>1215</td>
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<td>2904.7</td>
<td>-2848.7</td>
<td>294.7 N</td>
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<tr>
<td>3022</td>
<td>1200</td>
<td>N04 30E</td>
<td>2986.9</td>
<td>-2930.9</td>
<td>312.3 N</td>
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<tr>
<td>MEAS.</td>
<td>DRIFT DEPTH</td>
<td>DRIFT ANGLE</td>
<td>VERTICAL DEPTH</td>
<td>VERTICAL SUB-SEA</td>
<td>TOTAL COORDINATES</td>
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<tr>
<td>-------</td>
<td>-------------</td>
<td>-------------</td>
<td>----------------</td>
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<td>3175</td>
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<td>N04 30E</td>
<td>3136.5</td>
<td>-3080.5</td>
<td>344.0 N 68.5 W</td>
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<tr>
<td>3207</td>
<td>1200</td>
<td>N04 30E</td>
<td>3167.8</td>
<td>-3111.8</td>
<td>350.7 N 68.0 W</td>
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<tr>
<td>3310</td>
<td>1130</td>
<td>N03 30E</td>
<td>3268.7</td>
<td>-3212.7</td>
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<td>-3304.8</td>
<td>390.3 N 65.2 W</td>
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<td>3495</td>
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<td>-3394.1</td>
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<tr>
<td>3575</td>
<td>1330</td>
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<td>3528.3</td>
<td>-3472.3</td>
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<tr>
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<td>-3530.8</td>
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<tr>
<td>3696</td>
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<td>-3590.7</td>
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<tr>
<td>3758</td>
<td>0615</td>
<td>N43 00W</td>
<td>3708.2</td>
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<td>3955</td>
<td>0215</td>
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<td>4139</td>
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<td>-4032.6</td>
<td>468.3 N 92.6 W</td>
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<td>4235</td>
<td>0115</td>
<td>N69 00W</td>
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<tr>
<td>4332</td>
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<td>N54 00W</td>
<td>4281.5</td>
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<td>470.4 N 95.8 W</td>
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<td>4427</td>
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<td>4376.5</td>
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<tr>
<td>4518</td>
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<td>S26 00E</td>
<td>4467.5</td>
<td>-4411.5</td>
<td>471.1 N 95.3 W</td>
</tr>
</tbody>
</table>

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

Digitally signed by Scott Walker
DN: cn=Scott Walker, ou=Department of Conservation, ou=Division of Oil, Gas & Geothermal Resources, email=scott.walker@conservation.ca.gov, c=US
Date: 2017.04.07 16:55:45 -07'00'

For

Digital Signature

For

Daniel J. Dudak, District Deputy

EPM:epm

cc: Long Beach Dept. of Gas & Oil
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST – RECORDS RECEIVED AND WELL STATUS

Company: Westates Petroleum Corp.  C.R.G. Properties/LTD
API#: 037-22512
County: Los Angeles
Well: "NWLBU 8-7"
Sec. 13, T. 4S, R.13W. S. B. B. & M.
Field: Long Beach

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
<th>STATUS</th>
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</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>1/8/2014 (2)</td>
<td>Producing</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td></td>
<td>Abandoned</td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
<td></td>
<td>Reabandoned</td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sidewall Samples</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date final records received. Electric Logs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
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<table>
<thead>
<tr>
<th>WELL TYPE</th>
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<tbody>
<tr>
<td>Oil</td>
<td>Waterflood</td>
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<tr>
<td>Gas</td>
<td>Water Disposal</td>
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<td>Water Source</td>
<td>Cyclic Steam</td>
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<tr>
<td>Observation</td>
<td>Steam Flood</td>
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<tr>
<td>Exploratory</td>
<td>Fire Flood</td>
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<tr>
<td>Dry Hole</td>
<td>Other</td>
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EFFECTIVE DATE: 12/24/13
REMARKS: Abandoned

<table>
<thead>
<tr>
<th>ENGINEERS CHECK LIST</th>
<th>Location change</th>
<th>CLERICAL CHECK LIST</th>
<th>Elevation change</th>
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</thead>
<tbody>
<tr>
<td>Summary, History &amp; Core Record (Dupl.)</td>
<td>Location change</td>
<td>Electric Log</td>
<td>Elevation change</td>
</tr>
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<td>Electric Log</td>
<td>Elevation change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator's Name</td>
<td>Form OGD121</td>
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<tr>
<td>Signature</td>
<td>Form OGD150b (Release of Bond)</td>
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<td>Well Designation</td>
<td>Duplicate logs to archives</td>
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<td></td>
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<tr>
<td>Location</td>
<td>Notice of Records Due</td>
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<tr>
<td>Elevation</td>
<td>EDP MC 5-2-14</td>
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<tr>
<td>Notices</td>
<td>District Date Base</td>
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<tr>
<td>&quot;T&quot; Reports</td>
<td>Final Letter (OG159)</td>
<td></td>
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<tr>
<td>Casing Record</td>
<td>Update Center MC 5-2-14</td>
<td></td>
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<tr>
<td>Plugs</td>
<td></td>
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<tr>
<td>Directional Survey</td>
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<tr>
<td>Production/Injection (FAP Codes: 412-03- )</td>
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<td></td>
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<tr>
<td>E Well on Prod., enter EDP</td>
<td></td>
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<tr>
<td>Surface Inspection Required</td>
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<tr>
<td>Surface inspection Waived (Island)</td>
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<tr>
<td>Well site restoration deferred (common cellar)</td>
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<td></td>
</tr>
<tr>
<td>Final Letter Required AB: ☒ REAB: ☐</td>
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<tr>
<td>Other:</td>
<td></td>
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</tr>
</tbody>
</table>

FIELD CHECK LIST
Date Surface Inspection Completed: 12/19/2013
Other:  

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
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 "Nw1bu" 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
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator: C.R.G. Properties, LTD
Well No.: "Nwibu" 8-7
API No.: 2037-22512
Sec.: 13
T.: 04.S
R.: 13W
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)


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 Aways</th>
<th>Final</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top Bottom</td>
<td>Date</td>
<td>MO-Depth</td>
<td>Volume</td>
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<tr>
<td>9 5/8&quot;</td>
<td>36#</td>
<td>0' 4715'</td>
<td>12/3/2013</td>
<td>tbg@2440'</td>
<td>180 cf</td>
</tr>
<tr>
<td>9 5/8&quot;</td>
<td>36#</td>
<td>0' 4715'</td>
<td>12/6/2013</td>
<td>tbg@214'</td>
<td>234 cf</td>
</tr>
</tbody>
</table>

Casing/tubing recovered:

Squeezed Aways:

1) Shot/cut at ____________ fr. ____________

2) Shot/cut at ____________ fr. ____________

3) Shot/cut at ____________ fr. ____________

Junk in hole:

Hole fluid (bailed to) at ____________ Witnessed by ____________

*mud interval displaced upward 70'± by subsequent cement plug

<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>R. Morlan</td>
</tr>
<tr>
<td>72/27</td>
<td>12/3/2013</td>
<td>31</td>
<td>2852'</td>
<td>2450'</td>
<td>250'</td>
<td>T. Tyler</td>
</tr>
<tr>
<td>72/35</td>
<td>12/4/2013</td>
<td>146</td>
<td>2136'</td>
<td>250'</td>
<td>250'</td>
<td>T. Tyler</td>
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</table>

Note: 12 l13M – ZA 11/20/13

C/O @ 5425'; 11-26-2014; M. Chavez (w/ B. Irick approval).

<table>
<thead>
<tr>
<th>Cement Plugs</th>
<th>Placing</th>
<th>Placing Witnessed</th>
<th>Top Witnessed</th>
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<tr>
<td>Date</td>
<td>Sx/cf</td>
<td>MO &amp; Depth</td>
<td>Time Engineer</td>
</tr>
<tr>
<td>11-27-2013</td>
<td>346 CF</td>
<td>Tbg@5425'</td>
<td>1545 M. Chavez</td>
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<tr>
<td>12/2/2013 **</td>
<td>25 cf</td>
<td>Tbg @ 3580'</td>
<td>1100 P. Kaufman</td>
</tr>
<tr>
<td>12/2/2013</td>
<td>78 cf</td>
<td>Tbg @ 3058'</td>
<td>1115 P. Kaufman</td>
</tr>
<tr>
<td>12/3/2013</td>
<td>180 cf</td>
<td>Tbg @ 2440'</td>
<td>1200 R. Morlan</td>
</tr>
<tr>
<td>12/6/2013</td>
<td>234 cf</td>
<td>Tbg @ 214'</td>
<td>1345 P. Kaufman</td>
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</tbody>
</table>

** press test 9” csg 12/2/13 0820-0835, 690-660 psi

OGD10 (6/97) Printed on recycled paper.
HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD  Field Long Beach  County Los Angeles
Well "NWLBL" 8-7  Sec. 13  T. 04S  R. 13w  sbB&.M.
A.P.I. No. 037-22512  Name Mick Beyer  Title Operations Manager
(Person submitting report)  (President, Secretary, or Agent)
Date 12-15-13  (Month, day, year)  Signature
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.


11-21-13  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. Amilhusin 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.

OG103  (6/97/GSR/5M)
Printed on recycled paper.

SUBMIT IN DUPLICATE
HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD
Well "NWLBQ" 8-7
A.P.I. No. 037-22512
Date 12-15-13
Address 2109 Gundry Ave. Signal Hill, Ca. 90755

Field Long Beach
Sec. 13
T. 04S
R. 13w
sbB &M.
Name Mick Beyer
Title Operations Manager
(Person submitting report) (President, Secretary, or Agent)
Signature

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 ¼" Scraper on 2 7/8" tbg. 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. 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.

Accepted:

JAN - 8 2014

SUBMIT IN DUPLICATE
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 If/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  
4423'-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.

From: Abdurrahman, Abdulfageed@DOC  
Sent: Thursday, December 12, 2013 9:06 AM  
To: Irick, Barry@DOC  
Subject: FW: Well NWLBU 8-7
**BLOWOUT PREVENTION EQUIPMENT** MEMO

Operator: C.R.G. Properties, LTD  
Well: "Nwibu" 8-7  
Field: Long Beach  
County: L.A.  
Sec.: 13  
T.: 4S  
R.: 13W

**VISITS:**  
1st: 11/20/13 Z. Amilhussin (1630 to 1700)  
2nd: (to)  
Contractor: Allenco  
Rig # 2  
Contractor's Rep. & Title: I. Sandoval, Rig Manager

**Casing record of well:**

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**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: 113M

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**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>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</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 2 7/8</td>
<td>Townsend</td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
<td></td>
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</tbody>
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**ACTUATING SYSTEM**

Accumulator Unit(s) Working Pressure ______ psi  
Total Rated Pump Output ______ gpm  
Distance from Well Bore ______ ft.  
Fluid Level ______ ok  
Accum. Manufacturer: gal. psi x  
Precharge Fill-up Line  

d1 CONTROL STATIONS


<table>
<thead>
<tr>
<th>Size</th>
<th>Rated Press</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>gal.</td>
<td></td>
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</tr>
</tbody>
</table>

**EMERG. BACKUP SYSTEM**

Press. Wkg Fluid  
N₂ Cylinders  
Other: hand pump  
Tota: 10 gal.  
Pressure Gauge  
Adjustable Choke(s)  
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>
</tr>
</thead>
<tbody>
<tr>
<td>Audible</td>
<td></td>
</tr>
<tr>
<td>Visual</td>
<td></td>
</tr>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td>B</td>
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<tr>
<td>Pump Stroke Counter</td>
<td></td>
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<tr>
<td>Pit Level Recorder</td>
<td></td>
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<tr>
<td>Flow Sensor</td>
<td></td>
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<tr>
<td>Mud Totalizer</td>
<td></td>
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<tr>
<td>Calibrated Trip Tank</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:**

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OG09 (9/06)
CONTRACTOR: Allenco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND TO BE CORRECTED: 3 none

DEFICIENCIES NOTED AND CORRECTED:
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. 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)
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).
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 "NWIBU" 6-7, 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 5-5/8’ 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
   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)
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

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" B-7, API No. 037-22512


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

(Name)

Oil or gas shows: see attachment feet. Depth to base of fresh water: 2280 feet.

(Name and depth)

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: 562 989-6100

Signature

Date
07-10-13

Individual to contact for technical questions:
MICK BEYER

Telephone Number: 310 505-9787

E-Mail Address: Mbeyer@allenco.ca.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/cem 5777'-5583' & 4423'-4242'.
6. Tubing: 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 lag 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 2600' to 2180.

15. Prior to shooting any perforations for braidhead 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