Regulatory Records Documentation
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" 8-4, A.P.I. No. 037-06415, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 2/9/2014, received 3/6/2014, has been examined in conjunction with 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 filing of well records.

**NOTE:**


2. Site inspection made and approved on 3/21/2014.

3. This well has been abandoned in compliance with Division permit number 113-0597 issued on 7/19/2013.

Blanket Bond

Steven Bohlen  
State Oil and Gas Supervisor

By  
Daniel J. Dudak, District Deputy

OG159
REPORT ON OPERATIONS

Mr Mark Pender
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Cypress, California
July 13, 2015

Your operations at well "Nwibu" 8-4, A.P.I. No. 037-06415, Sec. 13, T. 04S, R. 13W, SB B&M., Long Beach field, in Los Angeles County, were witnessed on 2/11/2014, by Michael Okafor, a representative of the supervisor.

The operations were performed for the purpose of plugging and abandonment.

DECISION: APPROVED

NOTE: The required Class II2M blowout prevention equipment was inspected and approved on 1/23/2014.

DEFICIENCIES NOTED AND CORRECTED: None

EXPIRED
CANCELLED
MAILED
EMAILED

Steven Bohlen
State Oil and Gas Supervisor

By
For
Daniel J. Dudak, District Deputy

OG109 (Rev. 10/2011)
**DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES**

**CEMENTING/PLUGGING MEMO**

Operator: C.R.G Properties  
Well No.: "Nwibiu" 8-4  
API No.: 037-06415  
Sec.: 13  
T.: 4S  
R.: 13W  
SB: B&M  
Field: Long Beach  
County: Los Angeles  
On: 2/11/15  
Mr. / Ms. Michael N. Okafor, representative of the supervisor, was present from 1000 to 1200.

There were also present:

Casing record of well: 18 5/8" cem 50'; 13 3/8 cem 757'; 8 5/8" cem 4005' WSO, drilled thru 3165', cp 2465', pulled fr 220'; 5-1/2" cem 3017'-5924', perf 4375' WSO, perfs 5712'-5776'. TD (present hole) 5925'. Plugged w/cem 5925'-2805', w/245 cf cem below 2217', w/cem 2217'-2117±, 210'-0.

The operations were performed for the purpose of: Abandon (1)

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

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

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### Hole size:

- 17" fr. 50' to 757'  
- 12 1/4" to 4005'  
- 7 5/8" to 5925'

---

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed Away</th>
<th>Final Pressure</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top</td>
<td>Bottom</td>
<td>Date</td>
<td>MO-Depth</td>
</tr>
<tr>
<td>5-1/2&quot;</td>
<td>15.5#</td>
<td>3017'</td>
<td>5924'</td>
<td>1/17/14</td>
<td>T@ 5878'</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>32/36#</td>
<td>0</td>
<td>4005'</td>
<td>1/29/14</td>
<td>T@ 2475'</td>
</tr>
</tbody>
</table>

Casing/tubing recovered: 8-5/8

- Shot/cut at 220
- Pulled fr. 220
- 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>Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>80/30</td>
<td>1/28/14</td>
<td>25</td>
<td>2805'</td>
<td>2400</td>
<td></td>
<td>C.L.Cullum</td>
</tr>
<tr>
<td>72/30</td>
<td>1/30/14</td>
<td>120</td>
<td>2117'</td>
<td>100</td>
<td></td>
<td>J. Collender</td>
</tr>
</tbody>
</table>

Note: BOPI Class IIM 1/23/14 CLC  
c/o 5875'

---

<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>1/27/2014</td>
<td>446 cf</td>
<td>T@ 5875'</td>
<td>1000</td>
</tr>
<tr>
<td>1/29/2014</td>
<td>245 cf</td>
<td>T@ 2475'</td>
<td>0800</td>
</tr>
<tr>
<td>1/30/2014</td>
<td>34 cf</td>
<td>T@ 2217'</td>
<td>1100</td>
</tr>
<tr>
<td>2/3/2014</td>
<td>225 cf</td>
<td>T@ 210'</td>
<td>1100</td>
</tr>
<tr>
<td>2/10/2014</td>
<td>23 cf</td>
<td>T@ 20'</td>
<td>1530</td>
</tr>
</tbody>
</table>

OGD10 (9/97) Printed on recycled paper
CONTRACTOR: allenco

UNCORRECTABLE DEFICIENCIES: None

DEFICIENCIES NOTED AND CORRECTED: None
**Company:** C.R.G. Properties, LTD  
**API #:** 037-06415  
**County:** Los Angeles  
**Well:** NWLBU 8-4  
**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>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>3/6/2014</td>
<td>Active</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td></td>
<td>Drilling</td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
<td></td>
<td>Abandoned</td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
<td>Idle</td>
</tr>
<tr>
<td>Sidewall Samples</td>
<td></td>
<td>Reabandoned</td>
</tr>
<tr>
<td>Date final records received.</td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Electric Logs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WELL TYPE**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td></td>
<td>Waterflood</td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Water Source</td>
<td></td>
<td>Cyclic Steam</td>
</tr>
<tr>
<td>Observation</td>
<td></td>
<td>Steam Flood</td>
</tr>
<tr>
<td>Exploratory</td>
<td></td>
<td>Fire Flood</td>
</tr>
<tr>
<td>Dry Hole</td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

**EFFECTIVE DATE:** 2-12-14

**REMARKS:**

**ENGINEERS CHECK LIST**

<table>
<thead>
<tr>
<th>Item</th>
<th>Checkmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary, History &amp; Core Record (Dupl.)</td>
<td></td>
</tr>
<tr>
<td>Electric Log</td>
<td></td>
</tr>
<tr>
<td>Operator's Name</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Well Designation</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Elevation</td>
<td></td>
</tr>
<tr>
<td>Notices</td>
<td></td>
</tr>
<tr>
<td>&quot;T&quot; Reports</td>
<td></td>
</tr>
<tr>
<td>Casing Record</td>
<td></td>
</tr>
<tr>
<td>Plugs</td>
<td></td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
</tr>
<tr>
<td>Production/Injection (FAP Codes: 41203100 )</td>
<td></td>
</tr>
<tr>
<td>E Well on Prod., enter EDP</td>
<td></td>
</tr>
<tr>
<td>Surface Inspection Required</td>
<td></td>
</tr>
<tr>
<td>Surface inspection Waived (Island)</td>
<td></td>
</tr>
<tr>
<td>Well site restoration deferred (common cellar)</td>
<td></td>
</tr>
<tr>
<td>Final Letter Required AB: ☑ REAB: ☐</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**CLERICAL CHECK LIST**

<table>
<thead>
<tr>
<th>Item</th>
<th>Checkmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location change</td>
<td></td>
</tr>
<tr>
<td>Elevation change</td>
<td></td>
</tr>
<tr>
<td>Form OGD121</td>
<td></td>
</tr>
<tr>
<td>Form OGD150b (Release of Bond)</td>
<td></td>
</tr>
<tr>
<td>Duplicate logs to archives</td>
<td></td>
</tr>
<tr>
<td>Notice of Records Due</td>
<td></td>
</tr>
<tr>
<td>EDP</td>
<td></td>
</tr>
<tr>
<td>District Date Base</td>
<td></td>
</tr>
<tr>
<td>Final Letter (OG159)</td>
<td>☑ 12/01/15</td>
</tr>
<tr>
<td>Update Center</td>
<td></td>
</tr>
</tbody>
</table>

**FIELD CHECK LIST**

<table>
<thead>
<tr>
<th>Item</th>
<th>Checkmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Surface Inspection Completed: 12/14</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**RECORDS NOT APPROVED**

| Reason:                                    |           |

**RECORDS APPROVED**

<table>
<thead>
<tr>
<th>Item</th>
<th>Checkmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELEASE BOND</td>
<td></td>
</tr>
<tr>
<td>Date Eligible</td>
<td></td>
</tr>
<tr>
<td>(Use date last needed records received,)</td>
<td></td>
</tr>
<tr>
<td>MAP AND MAP BOOK</td>
<td></td>
</tr>
</tbody>
</table>

OGD2 1/16/14 CYPRESS
HISTORY OF OIL OR GAS WELL

01-23-14 M.I.R.U. – Installed and tested BOPE–Witnessed by C. Cullum w/DOGGR - Secured Well

01-24-14 R.I.H. W/5 ½" Scraper on 2 7/8" Tubing tagged fill at 5850' - Circ.with water w/returns of oily water and gas - P.O.H. - Witnessed by E. Tabor w/ DOGGR – Secured well

01-27-14 R.I.H.W/Tbg. Tagged at 5875' - Mixed and pumped 446 cu.ft. (391 sxs) class G cement Witnessed by Z. Amilhussein w/DOGGR - Secured well.


01-29-14 R.I.H. w/tbg.tail at 2475' mixed and pumped 245 cu/ft.(215 sxs) class G cement – Squeezed away 134 cu/ft prs. At 1000 psi. – Witnessed by Z. Amilhussein w/ DOGGR - secured well


01-31-14 Removed B.O.P.E. Pulled 220' of 8 5/8 “ casing – Witnessed by Z. Amilhussein w/ DOGGR – secured well

02-03-14 R.I.H. W/tbg. Tail at 210' mixed and pumped 225 cu/ft.(197 sxs) class G cement – cement to surface – P.O.H.- Witnessed by C. Collum w/ DOGGR – R.D.M.O.

02-10-14 Dug down around well and cut casing 5' below surface – Topped off surface plug w/ 23 cu/ft.(20sxs) class G cement Witnessed by P. Kaufman w/ DOGGR – Secured well

02-12-14 Z. Amilhussein w/ DOGGR witnessed surface tag and welding of I.D. Plate - Backfilled well location - Job complete.
BLOWOUT PREVENTION EQUIPMENT MEMO

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

VISITS:  
1st  
Date: 1/23/14  
Engineer: Callie L. Cullum  
Time: (1515 to 1530)  
Operator's Rep.:  
Title:  
Contractor: Allenco  
Rig #: 2  
Contractor's Rep. & Title: Derick Beyer, Driller (Allenco)  
Casing record of well: [memo]

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☒ N ☐
DECISION: The blowout prevention equipment and its installation on the 8 5/8" casing are approved.

Proposed Well Ops: Abandonment
MACP:  
psi

REQUIRED BOPE CLASS: 113M

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>
<tbody>
<tr>
<td>8 5/8&quot;</td>
<td>32#</td>
<td></td>
<td></td>
<td>1262'</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>Recov. Time (Min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rd</td>
<td>2 7/8</td>
<td>Townsend</td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rd</td>
<td>CSO</td>
<td>Townsend</td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TEST DATA

<table>
<thead>
<tr>
<th>Accum. Manufacturer</th>
<th>Capacity</th>
<th>Precharge</th>
<th>Fill-up Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>Size (in.)</td>
<td>Rated Press</td>
<td>Weld Flange Thread</td>
</tr>
<tr>
<td>x</td>
<td>2</td>
<td>3M</td>
<td>X</td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td>3</td>
<td>3M</td>
<td>X</td>
</tr>
<tr>
<td>Check Valve(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux. Pump Cnct.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choke Line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Gauge</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONTROL STATIONS

Manifold at accumulator unit: x
Remote at Driller's station: 
Other: hand pump

EMERG. BACKUP SYSTEM

<table>
<thead>
<tr>
<th>No. Cylinders</th>
<th>L =</th>
<th>Press. Wkg. Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55</td>
<td>1825 psi 4 gal.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>gal.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>gal.</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>gal.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>gal.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>gal.</td>
</tr>
<tr>
<td>TOTAL: 4</td>
<td></td>
<td>gal.</td>
</tr>
</tbody>
</table>

HOLE FLUID MONITORING EQUIPMENT

<table>
<thead>
<tr>
<th>Alarm Type</th>
<th>Class</th>
<th>Hole Fluid Type</th>
<th>Weight</th>
<th>Storage Pits (Type &amp; Size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
<td>no fluid has been added</td>
<td>70 bbl Mud Tank</td>
<td></td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td>B</td>
<td>(fluid in well unknown)</td>
<td>2,500 bbl storage tanks</td>
<td></td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pit Level Recorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Sensor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mud Totalizer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS AND DEFICIENCIES: two of the valves on the kill line need handles.
12.14' Hole

ETOC 2883'

DRILLED THRU 2165'

4005' DEM 4005X

7-1/2' Hole

PERF 4515' V800

5712'

5924'

5878'

TD (PRESENT HOLE) 5928'

WILBUR 3680'

BROWN 4400'

ALAMitos 3882'

UHZ 2475'

BFW 2250'

EFM 9110
PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL
CORRECTED COPY

Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to Abandon well "NWLBU" 8-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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. The proposed cement plug from 5878' to 3480' shall extend from 5878' to at least 281'7".
6. Prior to shooting any perforations braidenhead squeezes, a pressure test of the 8-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
7. 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.
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. No program changes are made without prior Division approval.
11. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
(Continued on page 2)

No Bond Required Bond

cc: Update EDP
    AllenCo.
    DOGGR - Dist. 1 (Cypress)

Engineer Ellen Plaza Moser
Office (714) 816-6847

By ____________________________
For: Daniel J. Dudak, District Deputy

Tim Kustic
State Oil and Gas Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 8/2011)
Page 1 of 2
b. Witness the clean-out depth at 5878'.
c. Witness the placing, location and hardness of the cement plug from 5878' to 2817'.
d. Witness the mudding operations.
e. Witness a pressure test of the 8-5/8'' casing.
f. Witness the cement squeeze through the perforations at 2465' or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 2475' to 2150'.
h. Witness the cement squeeze through the perforations at 200' through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.
j. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250'.
   b. Top of the Upper Gas Zone at 2475'.
   c. Top of the Wilbur Zone at 3680'.
   d. Top of the Alamitos Zone at 3882'.
   e. Top of the Brown Zone at 4400'.
Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL
CORRECTED COPY

Cypress, California
July 19, 2013

Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to Abandon well "NWLBU" 8-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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. The proposed cement plug from 5878' to 3480' shall extend from 5878' to at least 2817'.
6. Prior to shooting any perforations braidedhead squeezes, a pressure test of the 8-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
7. 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.
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. No program changes are made without prior Division approval.
11. THIS DIVISION SHALL BE NOTIFIED TO:
    a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

(Continued on page 2)

No Bond Required Bond

cc: Update
    EDP
    AllenCo.
    DOGGR - Dist. 1 (Cypress)

Engineer Ellen Plaza Moser
Office (714) 816-6847

EPM/epm

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)
Page 1 of 2

Tim Kustic
State Oil and Gas Supervisor

By [Signature]
For: Daniel J. Dudak, District Deputy
b. Witness the clean-out depth at 5878'.
c. Witness the placing, location and hardness of the cement plug from 5878' to 2817'.
d. Witness the mudding operations.
e. Witness a pressure test of the 8-5/8" casing.
f. Witness the cement squeeze through the perforations at 2465' or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 2475' to 2150'.
h. Witness the cement squeeze through the perforations at 200' through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.
j. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250'.
   b. Top of the Upper Gas Zone at 2475'.
   c. Top of the Wilbur Zone at 3680'.
   d. Top of the Alamitos Zone at 3882'.
   e. Top of the Brown Zone at 4400'.
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 Abandon well "Nwibl" B-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/ft³ and a minimum gel shear strength of 25 lbs./100 sq. ft.

5. Prior to shooting any perforations braidedhead squeezes, a pressure test of the 8-5/8" 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 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.

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. No program changes are made without prior Division approval.

10. 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 5676'.

(Continued on page 2)

Tim Kusic  
State Oil and Gas Supervisor

By [Signature]  
For: Daniel J. Dudak, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)  
Page 1 of 2
c. Witness the placing, location and hardness of the cement plug from 5678' to 3480'.
d. Witness the mudding operations.
e. Witness a pressure test of the 8-5/8" casing.
f. Witness the cement squeeze through the perforations at 2465' or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 2475' to 2150'.
h. Witness the cement squeeze through the perforations at 200' through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.
j. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250'.
   b. Top of the Upper Gas Zone at 2475'.
   c. Top of the Wilbur Zone at 3680'.
   d. Top of the Alamitos Zone at 3882'.
   e. Top of the Brown Zone at 4400'.
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 "Nwbfu" 8-4, API No. 037-06415, Sec. 13, T. 4s, R. 13w, S.B., B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See Attachment

The total depth is: 5925 feet. The effective depth is: 5878 feet.

Present completion zone(s): see attachment. Present zone pressure: N/A psi.

Oil or gas shows: see attachment feet. Depth to base of fresh water: 2250 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes [ ] No [ ]

The proposed work is as follows: (A complete program is preferred and may be attached.)
See Attachment

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
C.R.G. Properties, Ltd

Address
2109 GUNDRY AVE.

City/State
SIGNAL HILL

Zip Code
90755

Name of Person Filing Notice
MICK BEYER

Telephone Number:
562 989-8100

Signature

Date
07-10-13

Individual to contact for technical questions:
MICK BEYER

Telephone Number:
310 505-9787

E-Mail Address:
Mbeyer@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

OG108 (1/09)
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 “Nwlbu” 8-4 (037-06415), 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
6. Tubing: Unknown
7. Wellhead: Unknown
8. Base of Fresh Water (BFW): 2250’
9. Producing Zone(s): Brown
10. Hole Fluid: Unknown
11. Junk: Unknown

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 IIISM, 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 5878'.

10. Run in scraper. Scrape the 8-5/8" and 5 ½" casings.

11. Run in hole with tubing (if tag high, clean out fill to 5878').

12. The well shall be plugged with cement from 5878' to 3480'

13. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.

14. The 8-5/8" casing shall be perforated from 2475 to 2465'. Get an injection rate or a breakdown.

15. Sufficient cement shall be squeezed into the perforations to fill to 2150' outside the 8-5/8" casing.

16. The well shall be plugged with cement from 2475' to 2150'.

17. The 8-5/8" casing shall be cut and pulled from 210'.

18. The 13" casing shall be perforated from 210' to 200'. Sufficient cement shall be squeezed into the perforations to fill to surface.

19. The well shall be plugged with cement from 210' to surface.

20. All casing must be removed from between 5' and 10' below ground level.

21. 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.

22. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

23. 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.

24. 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.

25. 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.
STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REVISED

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 18, 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
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
See Sheet 1

BFN 2160'
Upper Gas (A) 2476'
Upper Wilbur 3280'
Alamitos Lower 3882'
Brown 4400'

7016, 3017 (6/20/67)

Perfs: 5712-5776 6/23/67

6/20/67 cement 579cf 5925

5978

Float collar plug at 5978 6/22/67

5925

RDZ
## REPORT OF PROPERTY AND WELL TRANSFER

**Field or County:** Long Beach  
**District:** District 1 (Cypress, California)  
**Former owner:** Pacific Energy Res.  
**Date:** July 26, 2000

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

**See above**

- **Date of transfer:** May 9, 2000  
- **New owner:** C.R.G. Properties, Ltd. C0250  
- **Type of organization:** Corp./Ltd.  
- **Address:** 15332 Antioch Street, Suite 338  
  Pacific Palisades, CA  90272  
- **Telephone:** (310) 808-9071  
- **Reported by:** OG34A received 6/2/2000 signed by both parties  
- **Confirmed by:** Same as above  
- **New operator new status:** Designation of Agent  
  - **Mark Pender**  
- **Old operator new status:** Remarks  
  - See operator file for C.R.G. Properties, Ltd. for details

### OPERATOR STATUS ABBREVIATIONS

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

### FORM AND RECORD CHECK LIST

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**Deputy Supervisor:** R. K. Baker  
**Signature:** Floyd M. Leeson  
**Operations Engineer:**

---

OGD156 12-2-98 Cypress
WELL TRANSFER NOTICE

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

Field or county: Long Beach
Former owner: Sun Exploration & Production Co.

Name and location of well(s):
- NWLB 5-1 (037-09795)
- NWLB 5-2 (037-00397)
- NWLB 5-3 (037-09796)
- NWLB 5-4 (037-09797)
- NWLB 5-5 (037-09788)
- NWLB 5-6 (037-09789)

Sec. 13-4S-13W S.B.B.&M.
NWLBU 8-1 (037-09792)
NWLBU 8-2 (037-09793)
NWLBU 8-3 (037-06496)
NWLBU 8-4 (037-06415)
NWLBU 8-7 (037-22512)
NWLBU 9-2 (037-13525)

Date of transfer, sale, assignment, conveyance, or exchange: May 1, 1983
New owner: Petro Resources, Inc.
Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309

Type of organization: Corp.
Telephone No.: 805/323-4118

Date: June 15, 1983

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

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

New owner:

Petro Resources, Inc.
Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309

Type of organization: Corp.
Telephone No.: 805/323-4118

Date: June 15, 1983

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

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

Deputy Supervisor: V. F. Gaede
Signature: [Signature]

OPERATOR STATUS ABBREVIATIONS

PA = Producing Active
NPA = No Potential, Active
PI = Potential Inactive
NP1 = No Potential, Inactive
Ab = Abandoned or No More Wells

FORM AND RECORD CHECK LIST

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

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RWS: sc

cc: Update Center
    EDP
    Conservation Committee

M. G. Mefferd
State Oil and Gas Supervisor

Acting Deputy Superintendent

R. A. Ybarra
REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Long Beach

Former owner: General Exploration Co.

Date: February 15, 1979

Name and location of well(s):

**Sec. 11-4S-13W**

"Dominguez" 2-10 (037-11859)

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

"Flood Control" 6 (037-00393)
"Oil Operators" 1 (037-09792)
"Oil Operators" 2 (037-09793)
"Oil Operators" 3 (037-06496)

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

"Dominguez" 1 (037-11858)

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

Dec. 1, 1978

New owner:

Sun Oil Company

Address:

23928 Lyons Avenue
Newhall, CA 91321

Former operator:

New operator:

Reported by:

Confirmed by:

**OPERATOR STATUS ABBREVIATIONS**

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FORM AND RECORD CHECK LIST:

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- Conservation Committee: Update Center
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(Records filed for signature and correct name of operator or well, S.T.R. and field.)

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(If production reports not received, make notation and inform Sr. Steno. when rec'd.)

If stimulation or disposal well: Form 121____ Folder____

Form 19-A

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(Release requested) (Check one)
DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR: General Exploration Company
FIELD: Long Beach

Well No.: "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: September 11, 1967
Signed: R. S. Ballantyne, Jr.

417 S. Hill St., Los Angeles 628-2156
Title: Vice President

It is of the greatest importance to have a complete history of the well. Use this form to report all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date
1967
8/8
Flowed 50 bbl. net 26.2° oil, 0.2% cut, 40-55#/pkr.

8/9
Moved in Blackwell & Sunde production rig. Opened bypass on packer and filled hole with salt water. Pulled tubing and packer (laid down 53 joints of 2-7/8" tubing).
Go-Western jet perforated four 1/2" holes per foot as follows: 4612-4560', 4489-4449' and 4435-4395'.

8/10
Ran 127 joints of 2-7/8" Armco seal lock tubing with pump shoe and gas anchor = 3960' and 3990', respectively. Ran rods and put well on pump. (Production not separated from other wells until 9/5).

8/12
45 bbl. net.

8/14
50 bbl. net.

9/5
36 bbl. net, 24.1°, 0.5%.

9/12
32 bbl. net, 24°, 0.5%.

9/13
Moved in Blackwell & Sunde production rig. Ran 100 bbl. salt water into annulus. Installed BOPE. Pulled rods and tubing. Go Western found sticky bottom at 5845' and jet perforated four 1/2" holes per foot from 4805-4760'. Ran 139 joints of Armco 2-7/8" seal lock tubing with pump shoe and gas anchor at 4335' and 4365', respectively. Put well on pump.

9/14
56 bbl. gross, 38 bbl. net, 32.2%.

9/17
53 bbl. gross, 47 bbl. net, 11.3%.

9/26
67 bbl. gross, 66 bbl. net, 1.5%, 24.7°.

CASKING RECORD AT COMPLETION OF WORK:
(Depths from present KB of 60') T.D. 5925'.
13-3/8" C 763'
8-5/8" C 3163'

Sidetracked:
8-5/8" G 4011', top 3194'. Plug 3194' (and open hole up to 3165')
(6-5/8" L 4414' incl. 60' pfs, C 4350, top 3849', Perfs 4011-4034', 4076-4136', Reperf 4354-4405', cemented off behind 4-3/4'.)
4-3/4" & 6-5/8" Perf 4146-4231'

DIVISION OF OIL AND GAS
RECEIVED

OCT 4 1967
INGLEWOOD, CALIFORNIA
History of Oil or Gas Well

Operator: General Exploration Company of Calif Field: Long Beach

Well No.: "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: July 3, 1967

Signed: R. S. Ballantyne, Jr.

417 S. Hill St., Los Angeles 628-2156 Title: Vice President

(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date 1967

6/6-7 Moved in, rigged up drilling equipment, installed base flange and B.O.P.E. (Graham Drilling Company).

6/8 Ran 7-5/8" bit on 3-1/2" drill pipe, located top of 4-3/4" liner at 3804' and filled hole with mud. Ran 940’ stinger of 2-3/8” tubing on drill pipe and circulated from 4550’ to solid fill at 4650’. Laid 100-sack class G cement plug from 4634’. Ran 7-5/8" bit and found cement at 3696’ (witnessed by D.O.G.). Tested 8-5/8” casing and B.O.P.E. satisfactorily at 1050# for 15 minutes.

6/9-10 Ran two Yann mills and cut section in 8-5/8” casing from 3163’ to 3168’. Ran two Servco mills and cut section to 3194’. Opened interval 3163’-3194’ to 12-3/4”. Ran 310’ stinger of 2-7/8” tubing on drill pipe to 3260’ and laid 80 sacks of class G cement (including 20% sand) treated with 0.5% CFR-2. Pulled tubing to 2720’, back-scuttled, squeezed cement with 1100# and pressure dropping to 950# in 5 minutes. Ran 7-5/8” bit and 8-5/8” casing scraper, found cement at 2992’ and drilled out to 3165’. Drilled 7-5/8” hole to 3296’ with DynaDrill.

6/12-16 Drilled 7-5/8” hole to 4845’ using a Dyna Drill from 4299’-4463’. Ran Schlumberger I.E.S. from 4844’ to 3163’.

6/16-19 Drilled 7-5/8” hole to 5900’. Ran Schlumberger I.E.S. from 5900’ to 4844’ and C.D.M. from 5900’ to 4000’.

6/20 Drilled 7-5/8” hole to 5925’ (T.D.). Ran 2907’ (including Burns liner hanger), 68 joints, 5-1/2”, 15.5#, J-55 casing on drill pipe. Cemented at 5924’ with 579 C.F. of 1:1 class G cement poumix with 2% gel and 0.5% CFR-2 and 12% salt in mix water. Backscuttled small amount of cement from inside top of 5-1/2” liner. Ran 7-5/8” bit and 8-5/8” casing scraper to top of liner at 3017’.

6/21 Pressure testing casing at 1000# and lap took fluid. Ran Baker shoe squeeze tool on drill pipe and set at 2925’. Squeezed 52 sacks of 75 sacks class G cement mixed into lap at 3017’ with a final pressure of 2000#. Ran 7-5/8” bit and 8-5/8” casing scraper, found top of cement at 2940’ and drilled out to 3017’.

6/22 Ran 4-3/4” bit and 5-1/2” casing scraper on 2940’ of 2-7/8” Armco (seal loc) tubing below drill pipe. Cleaned out cement to 3037’ and ran to float collar at 5878’. Satisfactorily pressure tested lap with 1000#. Ran Johnston tester and set packer at 2992’ with tail to 3000’. Open 63 minutes. Recovered 10’ of drilling fluid. Charts showed tester open. W.S.O. on lap approved by D.O.G. Ran Go-Western cement bond log from 5878’ to 3900’ and perforated four 1/2” jet holes at 4375’. Ran Johnston tester and set packer at 4342’ with tail to 4358’. Open 1 hour. Recovered 45’ of drilling fluid. Charts showed tester open. W.S.O. at 4375’ approved by D.O.G.

6/23 Ran open end tubing to 5874’. Changed over to 68# salt water. Laid down drill pipe. Ran Go-Western 4” steel carrier and jet perforated four 1/2” holes per foot as follows: 5776’-5761’, 5754’-5734’ and 5730’-5712’. Ran Guiberson packer on 179 joints of 2-7/8” Armco (seal loc) tubing and set at 5615’. Landed tubing with 16,000# on packer.
History of Oil or Gas Well

Operator: General Exploration Company of California, Long Beach

Well No.: "Oil Operators" 4, Sec. 13, T. 4 S, R. 13 W, S.B.B. & M.

Date: July 3, 1967

Address: 417 S. Hill St., Los Angeles 628-2156

Title: Vice Resident

Signed: R. S. Ballantyne, Jr.

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date

6/24

Removed B.O.F.E. Installed surface equipment. Swabbed well into production at 10:00 A.M. flowed 74 bbl. net/20 hrs., 81 Bp rate, 27.2°, 0.1%, 65 McfD, 20-230#/pk. 22/64" bean.

6/25

80 bbl. net, 27.2°, 0.1%, 65 Mcf, 20-160#/pk., 22/64".

6/26

82 bbl. net, 27.2°, 0.1%, 58 Mcf, 20-150#/pk., 22/64".

6/27

80 bbl. net, 27.2°, 0.2%, 63 Mcf, 20-170#/pk., 22/64".

Casing Record at Completion of Work:

(Depths from present KB of 60') T.D. 5925'.

13-3/8" C 763'.

8-5/8" C 3163'.

5-1/2" C 5924, top 3017' (splice OK). Perfs. 4575' (H30), 5712-5730', 5734-5754', 5761-5776'. Plug 5878'.

Sidetracked:

8-5/8" C 4011', top 3194'. Plug 3194' (and open hole up to 3165').


(6-5/8" L 4414' incl. 60' pfs, C 4350, top 3849', Perfs 4011-4034', 4076-4136', Reperf 4354-4405', cemented off behind 4-3/4'.)

4-3/4" C 6-5/8" Perf 4146-4231'.

RECEIVED

JUL 7 1967

INGLEWOOD, CALIFORNIA
Report on Test of Water Shut-off
(FORMATION TESTER)

No. T_167-576_

Mr. G. G. Willis
417 So. Hill Street
Los Angeles, California 90013

Inglewood, Calif.
June 28, 1967

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:
(037-06415)

Your well No. "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S.E. B & M.
Long Beach Field, in Los Angeles County, was tested for water shut-off on June 22, 1967. Mr. R. Johnson, Engineer, designated by the supervisor was present from 8:00 p.m. to 9:00 p.m., as prescribed by law; there were also present R. Willis, Engineer

Shut-off data: 5½ in. 15.5 lb. casing was cemented from 3017' to 5925' ft.
on June 20, 1967 in 7-5/8 in. hole with 579 cu. ft. of cement slurry (1:1 pozmix, 2% gel)
filling behind casing to 3017' ft. below surface.

Casing record of well: 18-5/8" cem. 50'; 13-3/8" cem. 757'; 8-5/8" cem. 4005', window
3163' - 3194' sidetracked @ 3165'; 5-1/2" cem. 3017' - 5925', perf. 4358' WBO, TD 1st
hole 5379'.

Present depth 5925' ft. cmt. bridge 5925' ft. to 5880' ft. Cleaned out cmt. ---- ft. to ---- ft. for test.
A Johnston tester was run into the hole on 3¼ & 2-7/8 in. drill pipe with ---- ft. of water-mud cushion, and packer set at 4342 ft. with tailpiece to 4358 ft.

Tester valve, with 3/4 in. bean, was open for 1 hr. and --- min. During this interval there was a light blow for 2 minutes & no blow thereafter.

--- Willis reported that the 5-1/2" casing was jet-perforated with four, 3/8" holes at 4358'.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 45' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE 5-1/2" SHUT-OFF AT 4358' IS APPROVED.

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By: Wm. C. Bailey, Deputy
Mr. C. G. Willis  
417 So. Hill Street  
Los Angeles, California 90013  

Inglewood, Calif.  
June 26, 1967  

Agent for: GENERAL EXPLORATION CO. OF CALIF.

DEAR SIR:  

Operations at well No. "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on June 22, 1967., representative of the supervisor was present from 11:30 a.m. to 12:15 p.m. There were also present R. Willis, Engineer & C. D. Martin, Drilling Foreman.

Present condition of well: 18-5/8" cem. 50'; 13-3/8" cem. 757'; 8-5/8" cem. 4005' window 3163'-3194'. sidetracked @ 3165'; 5-1/2" cem. 3017'-5925'. TD 5925'. TD 1st hole 5379'.

The operations were performed for the purpose of demonstrating the effectiveness of the seal between the 8-5/8" and 5-1/2" casings.

Mr. Willis reported:

1. A window was milled in the 8-5/8" casing from 3163' to 3194' and the hole was opened to 13" in that interval.
2. On June 10, 1967, 80 sacks of cement mixed with 20% sand was pumped into the hole through 3-1/2" drill pipe hanging at 3260'.
3. Cement was drilled out of the hole from 2992' to 3165'.
4. A 7-5/8" hole was redrilled from 3165' to 5925'.
5. On June 20, 1967, 2908' of 5-1/2", 15.5 lb. casing was cemented from 3017' to 5925' with 579 cubic feet of cement slurry (1:1 pozamix, 2% gel), filling behind the 5-1/2" casing to 3017'.
6. Excess cement was backcutted from above the 5-1/2" casing.
7. On June 21, 1967, the annulus between the 8-5/8" and 5-1/2" casings was recemented with 75 sacks of cement of which 50 sacks was squeezed away under a final pressure of 2000 P.s.i.
8. The hole was cleaned out to the float collar at 5880'.
9. A Johnston tester was run into the hole on 3-1/2" drill pipe, and packer set at 2993', with tailpiece to 3008'.
10. The tester valve with 3/4" beam was open for 1 hr. During this interval there was a light blow for 3 minutes and no blow thereafter.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 10' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED and indicate that no fluid has access to the well from the annulus between the 8-5/8" and 5-1/2" casings.

SC:nw

cc Company

E. R. MURRAY-AARON  
State Oil and Gas Supervisor

By: [Signature] Deputy
Mr. G. G. Willis
417 So. Hill Street
Los Angeles, California 90013

Inglewood, Calif.
June 14, 1967

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

(037-06415)

Operations at well No. "Oil Operators" 4, Sec. 13, T. 4 S, R. 13 W S.B., B & M. Long Beach Field, in Los Angeles County, were witnessed on June 8, 1967 by Mr. M. Meffard, Engineer, representative of the supervisor was present from 9:30 p.m. to 10:30 p.m. There were also present C. Martin, Drilling Foreman & L. Saxton, Driller.

Present condition of well: 18-5/8" cement. 50'; 13-3/8" cement. 757'; 8-5/8" cement. 4005'; W&B:

6-5/8" Id. 3943' -4408', cp 4334', perf. 4005' -4028', 4070' -4130' & 4140' -4225';

4-3/4" cement. 3804' -5376', perfs. 4140' -4225', 4488' -4528', 4565' -4591', 4630' -4670',

4805' -4835', 4850' -4920', 5113' -5158', 5168' -5235' & 5280' -5350'. TD 5379', plugged w/cement. 5376' -5361' & 4634' -3696'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 4634' to 3696' in the process of plugging back to redrill.

Mr. Martin reported:
1. The hole was cleaned out to solid fill at 4650'.
2. On June 8, 1967, 100 sacks of cement was pumped into the hole through 2-3/8" tubing hanging at 4634', filling to 3696'.

THE ENGINEER NOTED THAT the cement plug at the reported depth of 3696' supported 1/4 of the weight of the drill pipe.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 3696' ARE APPROVED.

cc Company

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By [Signature]
Deputy
Mr. C. G. Willis  
417 So. Hill Street  
Inglewood, Calif.  
Los Angeles, California 90013  
June 6, 1967
Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

Your proposal to redesign Well No. "Oil Operator's" 4, Section 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated June 2, 1967, received June 2, 1967, 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. Flugged w/cem. 5376'-5361'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5379'
2. Complete casing record, including plugs:
   - 13-3/8' C 757'
   - 8-5/8' C 4005' OK
   - 4-3/4' C 5376', top 3804', Pfs. 4468-4528', 4565-4591', 4630-4670', 4805-4835',
     4850-4890', 5113-5158', 5168-5235', and 5280-5350'.
   - Pl. 5365'. Sand bridge 4650'.
   - (6-5/8' L 4408' incl. 60' pfs. C 4344', top 3843', Pf 4005-4028', 4070-4130';
     Repf 4348-4399', cemented off behind 4-3/4'.)
   - 4-3/4' & 6-5/8' Pf 4140-4225'.
3. Last produced 10/14/64 (Date) (Oil,B/D) (Water,B/D) (Gas)
   - 2 546 -

PROPOSAL
"The proposed work is as follows:
1. Move in drilling equipment, install B.O.P.E. and fill hole with mud.
2. Lay cement plug from top of sand at approximately 4650' back to 3700'
   (top 4-3/4' liner at 3804'). Locke top of plug. Pressure test 8-5/8' casing
   and B.O.P.E. with 1000#.
3. Mill out 30-foot section of 8-5/8' casing near 3100', underream the window to 13',
   lay cement plug from 100' below section back above top of window and level off
   plug 5' into section.
4. Sidetrack cased hole through section and drill 7-5/8' hole to approximately 4800'.
5. Run and cement 5-1/2' liner, effect W.S.O. at lap of 8-5/8' casing and above pro-
   ductive horizon.
6. Complete well."

DECISION
THE PROPOSAL IS APPROVED PROVIDED:
1. Fluid consistent with good drilling practice shall be used, and the column of fluid
   maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating
   condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. The location and hardness of the cement plug at 3700'.
   b. A test, after cleaning out below the top of the liner to demonstrate that no fluid
      has access to the well from the annulus between the 8-5/8' and 5-1/2'
      casings.

E. R. MURRAY-AARON, Deputy Oil and Gas Supervisor  
Dated 6/1/67  
BLANKET BOND

E: "A test of the effectiveness of the 5½' shut-off. WLI:wm Bond No. 1410633, 6/1/67
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Los Angeles, Cal. June 2

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 in the following well at Well No. "Oil Operators" 4

sec. 13, t. 4S, r. 13W, s. bb. & m.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 5379'

2. Complete casing record, including plugs:

13-3/8" O 757',
8-5/8" O 4005' OK
Pl. 5365'. Sand bridge 4650'.
(6-5/8" L 4408' incl. 60' Pfs. C 4344', top 3843', Pf 4005-4028', 4070-4130'; Repf 4348-4399', cemented off behind 4-3/4'.
4-3/4" & 6-5/8" Pf 4140-4225'.)

3. Last produced. 10/14/64

The proposed work is as follows:

1. Move in drilling equipment, install B.O.P.E. and fill hole with mud.
2. Lay cement plug from top of sand at approximately 4650' back to 3700' (top 4-3/4" liner at 3804'). Locate top of plug. Pressure test 8-5/8" casing and B.O.P.E. with 1000#.
3. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to 13", lay cement plug from 100' below section back above top of window and level off plug 5' into section.
4. Sidetrack casing hole through section and drill 7-5/8" hole to approximately 4800'.
5. Run and cement 5-1/2" liner, effect W.S.O. at lap of 8-5/8" casing and above productive horizon.
6. Complete well.

417 S. Hill St., Los Angeles 90013

Address One Copy of Notice to Division of Oil and Gas in District Where Well Is Located
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Los Angeles
Former Owner: Union Oil Co. of California
Description of Property: Sec. 13, T. 4 S., R. 13 W., S. 1/2, E. 1/2

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

Date of Transfer: January 1, 1961
New Owner: General Exploration Co. of California
Address: 730 Subway Terminal Building, 417 South Hill Street, Los Angeles 15, 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: PA

Remarks:
about

CC: Mr. E. N. Rasmussen
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 11-6-59  Form 100  101  103  New Well Records

Elec. Log  Radio Log  Subsequent Work

Direct. Surv. Other Data

Location

Elevation Clerk

Prod. Repts. Clerk

Completed Producing on 8-22-59

Abandoned on

BOND Release Date Elig. 150b

End Prem. year Release Requested Superseded

Aband. Redrill

HOLD BOND Reason Deepen

Reason Plug

Data Needed Alter Cag.

Final Letter Eng. Abandon
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<td>Contractor moved in and rigged up. Filled rods and pump. Filled tubing. Ran in with 7-1/2&quot; impression block to top of 3-3/4&quot; liner at 3801'. Han 3-5/8&quot; impression block to 4250'. Installed blow-out preventer.</td>
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**Casing Record at Start of Work:**
- 13-3/8" C 757'
- 5-5/8" C 4005' OK
- 5172' to 3/4" C 5376'.' (948-4538',
- 4565-4591', 4630-4670', 4805-4835',
- 4805-4920', 5113-5158', 5168-5235',
- 5280-5350'.
- (565' 6-5/8" L 4403' incl. 60' p.f.u.
- 6' 434', 96005-4023', 4070-4130';
- top 4348-4399', cemented off behind 4-3/8")
- 4-3/4" & 6-5/8" perfs., 4140-4225'.

**Casing Record at Completion of Work:**
- 13-3/8" C 757': 8=5/8" C 4005' OK
- 1572' 4=3/4" C 5376', 948-4528',
- 4565-4591', 4630-4670', 4805-4835',
- 4830-4920', 5113-5158', 5168-5235',
- 5280-5350'.
- (565' 6-5/8" L 4403' incl. 60' p.f.u.
- 6' 434', 96005-4023', 4070-4130';
- top 4348-4399', cemented off behind 4-3/8")
- 4-3/4" & 6-5/8" perfs., 4140-4225'.

**Perforated Liners:**
- 4-3/4" and 6-5/8" liners from 4225-4410' with two 1/2" jet holes per foot and two 1/2" bullets per foot. Fluid level (mud) rose from 3600' at start to 1400' at end. Light blow while shooting. Ran in with 2-7/8" Cavins sand pump and bailed at 5331'. Started running tubing.
- Ran in and landed tubing with gas anchor at 4200'. Ran rods and pump. But well on production. Contractor moved out.
**Casing Record**

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**Production Data**

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- Well down due to bad leak in the oil line.
- Filled rods.
- Filled tubing, ran tgb & rods, pump stuck.

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

Terminal Drilling Co. - Contractor

[Signature]

District Engineer
Mr. C. F. Bowden  
P.O. Box 7690  
Los Angeles 54, California

Agent for UNION OIL COMPANY OF CALIFORNIA

Inglewood 3, Calif.  
September 1, 1959

Dear Sir:

Your proposal to alter casing, Well No. "Oil Operators" 4,

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

dated August 25, 1959, received August 28, 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,

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5379’
   Plug 5361’
2. Complete casing record.
   13-3/8” C 757’
   8-5/8” C 4005’ OK
   565’ 6-5/8” L 4408’ inc. 60’ perf.; CP 4348’; Pf. 4005-4028, 4070-4130,
   4348-4399’—Cemented off behind 4-3/4”.
   1572’ 4-3/4” C 5376’, plug 5361’; PT 4408-4525, 4565-4591, 4630-4670,
   4805-4835, 4830-4920, 5113-5235, 5280-5350’.
   (Date) 2  
   (Net Oil) 21.1  
   (Gravity) 75.0%  
   (Cut)”

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing. Install blow-out preventer equipment.
2. Check condition of casing.
3. Bullet and jet perforate 4-3/4” and 6-5/8” casings with four holes per foot from 4140-4225’.
4. Run tubing, pump and rods.
5. Test well on production."

DECISION
THE PROPOSAL IS APPROVED.

RC: yk

cc- Mr. Vaughan S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor

By [Signature], Deputy
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given before work begins; one copy only

Santa Fe Springs, Calif. August 25, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. Oil Operators #4

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

Long Beach, Los Angeles County, Field,

The present condition of the well is as follows:

1. Total depth. 5379'
   Plug 5361'

2. Complete casing record.
   13-3/8" C 757'
   8-5/8" C 4005' OK
   565' 6-5/8" L 4408' inc. 60' perf.; CP 4344'; Pf. 4005-4028, 4070-4130, 4348-4399' ---- Cemented off behind 4-3/4'.
   1572' 4-3/4" C 5376', plug 5361'; Pf 4488-4525, 4565-4591, 4630-4670, 4805-4835, 4830-4920, 5113-5235, 5280-5350'.

   (Date) (Net Oil) 21.1
   (Gravity) (Cut) 75.0%

The proposed work is as follows:

1. Pull rods and tubing. Install blow-out preventer equipment.
2. Check condition of casing.
3. Bullet and jet perforate 4-3/4" and 6-5/8" casings with four holes per foot from 4140-4225'.
4. Run tubing, pump and rods.
5. Test well on production.

Union Oil Co. of Calif.

(Name of Operator)

By Vaught S. Meyer, Division Engr.

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
COMPLETED PRODUCING ON 8-27-59

ABANDONED ON
STENOGRAPHER

Date Received 2-26-49  Form 100  101  103

Elec. Log                     Radio Log

Direct. Surv. Other Data

Location

Elevation Steno. 80

ENGINEER

BOND Blanket Release Date Elig. 150b


HOLD BOND Reason

Data Needed

Final Letter Eng. SMR 3-1-49

Note: This work done without filiangular.
Date Received: 12-2-48

Elec. Log.       Radio Log

Direct. Surv.    Other Data: Test. Fall. Cap

Location

Elevation

Steno.

BOND Blanket      Release ___ Date Elig. ___ 150b ___

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

HOLD BOND ___ Reason ___

Data Needed: None

Final Letter: Eng.

12-6-48
REPAIR REPORT

PORTABLE HOIST - CONTRACT

DATE: Oct. 30, 1948

LOCATION: Los Angeles, California

WELL NO.: Oil Operators #4

FIELD: Long Beach

COUNTY: Los Angeles

SEC.: 13

T.: 4-S

R.: 13-W S.B.

B. & M.

PROPOSED WORK: Perforate interval from 4605' to 4835' with two 7/8" holes per foot.

Production: 7 B/D net - 18.7% - 21.5%

California Production Service - Contractors, moved in and pulled rods, pump and tubing. Ran 2-7/8" Grinnell sand pump bailer to 5350'.

Cleaned out with ditto bailer to 5360'. Ran 2-3/4" impression block to 5130'. Indicated rough perforation holes. Ran 3-1/2" impression block to 5360', 0 K. Ran in and shot 4-3/4" casing at intervals from 4630-4670', 4805-4835' with 140 1/2" McCullough bullets, using 3-1/2" o.d. x 10' (20-shot) gun. Checked top of 4-3/4" casing at 3802'. Fluid level at start 3590'. Fluid level at finish 3520'. Evidence of fine sand and mud on guns and sand line during shooting from 4630-4670'. Light gas blow during entire period of shooting.

Ran tubing to 4600'. Put well on production.

production data:

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Names of drillers/head well pullers: Calif. Prod. Serv. - Contr.

John R. Greene
District Engineer
## Proposed Work
Perforate interval from 4565' to 4591' with two 1/2" holes per foot. Test on the pump. Production 6 B/D net - 11 4/5 out.


Checked bottom with bailed at 5360'. Gun perforated 4-3/4" casing from 4488-4528', 4555-4591' with 132' McCullough 1/2" bullets using 3-1/2" o.d. x 20 shot gun (120 grain loads). Had strong gas blow after shooting first gun. Flow continued throughout shooting. Unable to check fluid level with gun. Guns contained some sand. Casing pressure 325 psi while shooting. Used 8.5' above concrete pad as zero measurement.

Checked bottom at 5360'. Unable to determine fluid level. Ran tubing, pump and rods. Contractors moved out.

**Installed gas trap**

### Production Data

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---

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

CALIF. PROD. SERV. - Contr.

**District Engineer:**

John R. Girrer
Report on Proposed Operations

No. P-2-45682

Los Angeles 15, Calif. October 5, 1948

Mr. W. S. Eggleson
Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 4,

Section 13, T. 4 S., R. 13 W., S. B. & M., Long Beach Field, Los Angeles County,
dated Sept. 30, 1948 received Oct. 1, 1948 has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:
1. Complete casing record.
   Total Depth 5379' - Plug 5365'
   18-5/8" C 50'
   13-3/8" C 757'
   8-5/8" C 4005' O.K.
   565' 6-5/8" L 4408' inc. 60' perf., O.F. 4344' - drilled through bottom.
     (Perf. & cmt., 4005-4028', 4028-4039')
   1572' 4-3/4" C 5376', perf. 4850-4920', 5113-5158', 5168-5235', 5282-5350'
   \\
   3 Lg @ 3802'

2. Last produced Aug. 1948
   (Date) 8 B/D Ave. 21.5° (Net Oil) 15.5° (Gravity) (Gut)"

PROPOSAL:
"The proposed work is as follows:
1. Add perforations with two 1/2 bullet perforations per foot in the intervals from
   4630-4672', 4805-4835'.
2. Test on production."

DECISION:
THE PROPOSAL IS APPROVED.

SHR:OH

cc- John R. Fraser
Long Beach

Records Filed
100'
101
103. 12-2-48
E. Log.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser

Deputy

Blanket bond.
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

Whittier, Calif. Sept. 30, 1948

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 

Long Beach, Field, Los Angeles County.

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

The present condition of the well is as follows:

1. Complete casing record.

Total Depth 5379' - Plug 5365'
18-5/8" C 50'
13-3/8" C 757'
8-5/8" C 4005' O.K.
565' 6-5/8" L 4408' inc. 60' perf., C.P. 4344' - drilled through bottom.
(perf. & cmt. 4005-4028', 4070-4130')
1572' 4-3/4" C 5376', perf. 4850-4920', 5113-5158', 5168-5235', 5282-5350'

2. Last produced Aug. 1948 8 B/D Ave. 21.5° 15.5°

(Date) (Net Oil) (Gravity) (Cst)

The proposed work is as follows:

1. Add perforations with two 1/2" bullet perforations per foot in the intervals from 4630-4672', 4805-4835'.

2. Test on production.

UNION OIL COMPANY OF CALIF.

(Name of Operator)

By John R. Fraser, Division Engr.

Address Notice to Division of Oil and Gas in District Where Well is Located
STENOGRAPHER

Forms ed

Date Rec'd. 11-14-45

Electric Log

Location

Elevation

ENGINEER

Form Needed

Map Correction

Form 150b (Date of Release)

At Request of Operator

Because Abandoned

Because Request by Oper.

Remarks sub work report of alter casing
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: Union Oil Company of California
Field: Long Beach

Well No: 4, Sec: 13, T: 4-3, R: 13-W, S.B. B. & M.

Signed: [Signature]

Date: November 8, 1945
Title: Division Engineer

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed; amount and location of perforations; number of sacks of cement used in cementing or plugging operations; number of feet of cement drilled out of casing; location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-16</td>
<td>5379</td>
<td>Plug 5361</td>
<td>Pulled rods and tubing. Rigged up to add perforations.</td>
</tr>
<tr>
<td>8-17</td>
<td>C.O. 5361</td>
<td></td>
<td>Cleaned out sand from 5355 to 5361'. Fluid level 4440'.</td>
</tr>
<tr>
<td>8-18</td>
<td></td>
<td></td>
<td>Perforated 4-3/4&quot; casing from 4850 to 4920' with 138 Lane-Wells 1/2&quot; bullets.</td>
</tr>
<tr>
<td>8-22</td>
<td></td>
<td></td>
<td>Ran rods and 2-1/2&quot; upset tubing to 5029' over-all. Put well to pumping.</td>
</tr>
</tbody>
</table>

Production Data:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
<th>Grav.</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-23</td>
<td>24</td>
<td>16</td>
<td>26.2</td>
<td>13.1</td>
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<td>8-25</td>
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<td>26.2</td>
<td>13.1</td>
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<td>8-27</td>
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<td>16</td>
<td>26.2</td>
<td>13.1</td>
</tr>
<tr>
<td>8-29</td>
<td>24</td>
<td>18</td>
<td>26.2</td>
<td>13.1</td>
</tr>
<tr>
<td>8-31</td>
<td>24</td>
<td>15</td>
<td>26.2</td>
<td>13.1</td>
</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Name of Operator

Union Oil & G Calif.

Address

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

Logs

Long Beach

History

Core record

Subsequent work - "All Operators" 4

R. D. Bush, State Oil and Gas Supervisor

By

San Francisco, Calif.

OCT 20 1944

1944
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

Report on Proposed Operations  

No. P-1-41022  

Los Angeles 14, Calif. August 14, 1945  

Mr. W. S. Eggleston  

Los Angeles 14, Calif.  

Agent for UNION OIL COMPANY OF CALIFORNIA  

DEAR SIR:  

Your proposal to alter casing Well No. "Oil Operators" 4, Section 13, T. 14 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated Aug. 6, 1945, received Aug. 10, 1945, 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 6-5/8" casing is perforated 4348'-4408", 4430'-4970", and 4043'-4005", (sealed off by 4-3/4" casing).  

THE NOTICE STATES:  

"The present condition of the well is as follows:  
1. Complete casing record. 
Total Depth 5379' Plugs 5361'  
13-3/8" Cmtd. 1574'  
8-1/4" Cmtd. 4005' OK  
1572' 4-1/4" Cmt. 5376' Perf. 5123'-5153', 5168-5235', 5280-5350'.  
(565' 6-5/8" L 4408' inc. 60' perf. CP 4348' - Drilled through)  

Production has not been satisfactory since reperfuring in August, 1944.  

2. Last produced June, 1945  
172 26.2° 26.2% 29 days  
(Date) (Net Oil) (Gravity) (Cut)"  

PROPOSAL:  
"The proposed work is as follows:  
1. Leave present perforations (RS-T) open and add perforations 4850'-4920'.  
2. Test on production."  

DECISION:  
THE PROPOSAL IS APPROVED.  

ERMA: OH  

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

R. D. BUSH  
State Oil and Gas Supervisor  

By E. H. Messer Deputy  

Blanket bond No. 99071
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. August 6, 1945

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 altering casing at well No. Oil Operators #4
(Cross out unnecessary words)

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total Depth 5379' Plug 5361'
   13-3/8" Cmtd. 757'
   8-5/8" Cmtd. 4005' OK
   1572' 4-3/4" Cmtd. 5376' Perf. 5113-5158', 5168-5235', 5280-5350'.
   (565' 6-5/8" L 4408' inc. 60' perf. CP A344' - Drilled through)

   Production has not been satisfactory since reperforating in August, 1944.

2. Last produced June, 1945
   (Date)
   172
   (Net Oil)
   26.2°
   (Gravity)
   26.2% 29 days
   (Gat)

The proposed work is as follows:

1. Leave present perforations (RS-T) open and add perforations 4850-4920'.

2. Test on production.

MAP BOOK CARDS BOND "FORMS"

Blacket 99071

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By Anthony E. Wink
(Division Engineer)

Address Notice to Division of Oil and Gas in District Where Well is Located
STENOGRAPHER

Forms Filed ____________ 102 ____________
Date Rec'd. ____________ 10-4-44 ____________
Electric Log ____________
Location ____________
Elevation ____________

ENGINEER

Form Needed ____________ None ____________
Map Correction ____________ None ____________

Form 150b (Date of Release) ____________
At Request of Operator ____________
Because Abandoned ____________
Because Request by Oper. ____________

Remarks ____________ Rec. for Subsequent Work Report ____________
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR: Union Oil Company of California
FIELD: Long Beach

Well No.: Oil Operators #4, 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 July 18, 1941.

Date: September 27, 1944

Title: Division Engineer

(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which affect 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:

13-3/8" C 757'
8-5/8" C 4005' O.K.
1572' 4-3/4" C 5376' -
Perf. and Reperp. 5113-5158',
5168-5175' and 5280-5350' 
(565' 6-5/8" L 4408', Inc 60' Perf.
(Behind 4-3/4")
C.P. 4344' - Reperp. 4348-4399')

Casing Record at End of Work:

13-3/8" C 757'
8-5/8" C 4005' O.K.
1572' 4-3/4" C 5376' -
Perf. and Reperp. 5113-5158',
5168-5235' and 5280-5350' 
(565' 6-5/8" L 4408', Inc. 60' 
Perf. (Behind 4-3/4")
C.P. 4344' - Reperp. 4348-4399')

1944 Depth Effective Remarks
6-7 5379 Plugs 5361 Moved in and rigged up to reperforate.
8-12 5379 C.O. 5360 Cleaned out sand from 5325 to 5360' with 2-7/8" bailer. Fluid level 3561
8-14 5379 Perf. and perforated 4-3/4" casing with 1/2" Lane-Wells gun holes as follows: 5305-5282' with 34 holes, 5235-5168' with 120 holes, and 5158-5113' with 21 holes.
8-22 5379 C.O. 5361 Checked top of oil at 3520'; top of water at 5325' and hole open to 5361.
8-25 5379 Ran rods and 2-1/2" plain and upset tubing to 5329' overall. Put well to pumping.

<table>
<thead>
<tr>
<th>HOUR</th>
<th>GROSS</th>
<th>NET</th>
<th>GRAVITY</th>
<th>CUT</th>
<th>REMARKS</th>
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<td>26.2</td>
<td>38.0</td>
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<td>9-17</td>
<td>24</td>
<td>14</td>
<td>9</td>
<td>26.2</td>
<td>38.0</td>
</tr>
</tbody>
</table>

PRODUCTION DATA
Report on Proposed Operations

No. P.1-39835

Los Angeles 14, Calif. July 18, 1944

Mr. W. S. Eggleston

Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your proposal to plug & alter casing Well No. "Oil Operators" 4

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

dated July 15, 1944, received July 17, 1944, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:

1. Complete casing record.
   Total depth 5379' - plug 5361'
   13-3/8" cmtd. 757'
   8-5/8" cmtd. 4005' O.K.
   (565' 6-5/8" landed 4408', inc. 60' perf. C.P. 4341'. Perf. 4005-4028, 4070-4130' deepened through)
   1572' 4-3/4" cmtd. 5376' - perf. and re-perf. 5113-5158', 5165-5175', 5230-5350'"

2. July, 1944 produced 87 (Date) 26.2 (Net Oil) 40.0 - 29 days. (Gravity) (Out)"

PROPOSAL:

"The proposed work is as follows:

1. Add perforations 5175-5235' and re-perforate present perforations.
2. If wet or no fluid, plug to 5090' and test by Division of Oil and Gas.
3. Perforate 4850-4920' and test. If unsuccessful, test higher.
4. If any test is unsuccessful, plug to 20' above perforations and test by Division of Oil and Gas."

DECISION:

THE PROPOSAL IS APPROVED.

ERM A: OH

cc- P. A. W.
H. B. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By

Blanket bond No. 99071
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 15  1944

DIVISION OF OIL AND GAS

Los Angeles  Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of repairing, extending, plugging or altering casing at well No. Oil Operators #4

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

Long Beach  Field,  Los Angeles  County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 5379' - plug 5361'
   13-3/8'' cmt. 757'
   8-5/8'' cmt. 4005' 0.K.
   (565' 6-5/8'' landed 4408', incl. 60' perf. O.P. 4344'. Perf. 4005-4028, 4070-4130' = deepened through)
   1572' 4-3/4'' cmt. 5376' = perf. and re-perf. 5113-5158', 5168-5175', 5280-5350'

July, 1944

2.  Produced  87  26.2  40.0 - 29 days
   (Date) (Net Oil) (Gravity) (Gat)

The proposed work is as follows:

1. Add perforations 5175-5235' and re-perforate present perforations.
2. If wet or no fluid, plug to 5090' and test by Division of Oil and Gas.
3. Perforate 4850-4920' and test. If unsuccessful, test higher.
4. If any test is unsuccessful, plug to 20' above perforations and test by Division of Oil and Gas.

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
DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR: Union Oil Company of California
FIELD: Long Beach

Well No. Oil Operators No. 4, 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 3-21-38.

Date: July 18, 1941

Outline in the order of performance, together with 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 slugs. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailng.

Casing Record at Start of Work

13-3/8" G. 757', 8-5/8" C. 4005', 0.0.
565' 6-5/8L 4408', inc. 60' perf.
CP. 4344'.
Reperf: 4348-4399', Perf: 4005-4028', 4070-4130'.

Casing Record at End of Work

13-3/8C757', 8-5/8G0405', 0.0.
1572' 4-3/4 C. 5376'.
Perf. and Repurf: 5113-58'; 5168-75';
5280-5350';
(565' 6-5/8L 4408', inc. 60' perf, behind 4-3/4'. CP. 4344'. Repurf: 4348-4399'; Perf:
4005-4028'; 4070-4130').

1941 |
Depth | Eff. Depth | Remarks
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3-19</td>
<td>4408</td>
<td>Pulled rods and tubing.</td>
</tr>
<tr>
<td>3-21</td>
<td>4407</td>
<td>Drilled out cement plug.</td>
</tr>
<tr>
<td>3-22</td>
<td>4408</td>
<td>Drilled out lead seal and bottom of liner.</td>
</tr>
<tr>
<td>3-23</td>
<td>4500</td>
<td>Drilled with 5-5/8&quot; bits.</td>
</tr>
<tr>
<td>3-24</td>
<td>4555</td>
<td>Cored with 5-5/8&quot; wire line core barrel.</td>
</tr>
<tr>
<td>3-28</td>
<td>5112</td>
<td>Drilled with 5-5/8&quot; bits.</td>
</tr>
<tr>
<td>4-2</td>
<td>5379</td>
<td>Cored with 5-5/8&quot; core barrel, ran Schlumberger electric log and inclinometer from 4408' to 5375'. Co-ordinates at 5370', 155'S, 195'E. Under-reamed with Grant hydraulic under-reamer from 4112' to 5377'.</td>
</tr>
<tr>
<td>4-9</td>
<td>5379</td>
<td>Ran in 1572' 4-3/4&quot; 16#, Grade &quot;G&quot; seamless second-hand liner, including 8-5/8&quot; x 4-3/4&quot; Burns liner hanger and adapter. Landed at 5376' with Baker float shoe on bottom and Baker float collar at 5361', Cemented with 200 sacks by displacement method.</td>
</tr>
<tr>
<td>4-10</td>
<td>5379</td>
<td>Found top of cement at 3680' and drilled out to 3804' with 7-5/8&quot; bit.</td>
</tr>
<tr>
<td>4-11</td>
<td>5379</td>
<td></td>
</tr>
</tbody>
</table>
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 3-21-38, was filed.

Signed: [Signature]

Date: July 18, 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 socks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

<table>
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<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-13</td>
<td>5379</td>
<td>Plg. 5361</td>
<td>Drilled out cement with 3-7/8&quot; bit and 4-3/4&quot; casing scraper from 3804' to 3814' and from 5305' to 5361'.</td>
</tr>
<tr>
<td>4-14</td>
<td>5379</td>
<td></td>
<td>Bailed mud with 6-5/8&quot; bailer to 3093' and checked bottom with bailer. After 8 hours no rise in fluid as witnessed by Corwin of Division of Oil &amp; Gas, and casing splice approved.</td>
</tr>
<tr>
<td>4-15</td>
<td>&quot;</td>
<td></td>
<td>Perforated 4-3/4&quot; casing with Lane-Wells gun, shooting .45 caliber bullets from 5113-5137' with 48 holes. 5280-5322' with 85 holes.</td>
</tr>
<tr>
<td>4-16</td>
<td>&quot;</td>
<td></td>
<td>Landed 2½ upset tubing at 5167'.</td>
</tr>
<tr>
<td>4-18</td>
<td>&quot;</td>
<td></td>
<td>Swabbed fluid, ran in pump and rods, installed pumping unit, and put on production.</td>
</tr>
</tbody>
</table>

### PRODUCTION DATA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>4-18</td>
<td>72</td>
<td>54</td>
<td>23.2</td>
<td>24.7</td>
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<td>4-23</td>
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<td>4-28</td>
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DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California  Field: Long Beach

Well No. Oil Operators #4, 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 3-21-38

Signed: [Signature]

Date: July 18, 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 bailings.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-29</td>
<td>5379</td>
<td>P.l. 5361</td>
<td>Pulled rods and tubing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bailed and swabbed perforations.</td>
</tr>
<tr>
<td>5-2</td>
<td></td>
<td></td>
<td>Reperforated 4-3/4&quot; liner with Lane-Wells gun, shooting .45 caliber bullets from 5114' to 5140', with 26 holes. 5280' to 5325', with 45 holes. Ran 2 5/8&quot; tubing to 5290'. Ran in pump and rods. Connected pumping unit. Put on production.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Gross</th>
<th>Net</th>
<th>A.P.I. Gravity</th>
<th>Cut</th>
<th>Hours Produced</th>
</tr>
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<tbody>
<tr>
<td>5-2</td>
<td>37</td>
<td>18</td>
<td>23.2</td>
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<td>4</td>
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<td>2.5</td>
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</tr>
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<td>27</td>
<td>26</td>
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<td>2.5</td>
<td>18</td>
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<td>23.2</td>
<td>2.5</td>
<td>4</td>
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<tr>
<td>5-9</td>
<td>37</td>
<td>36</td>
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<td>2.5</td>
<td>12 (Run pressure bomb)</td>
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<tr>
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<td>29</td>
<td>28</td>
<td>23.2</td>
<td>2.5</td>
<td>24</td>
</tr>
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<td>5-11</td>
<td>29</td>
<td>28</td>
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<td>2.5</td>
<td>24</td>
</tr>
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<td>5-12</td>
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<td>2.5</td>
<td>24</td>
</tr>
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<td>40</td>
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<td>2.5</td>
<td>24</td>
</tr>
<tr>
<td>5-14</td>
<td>26</td>
<td>25</td>
<td>23.2</td>
<td>2.5</td>
<td>17 (Pull pressure bomb)</td>
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<td>2.5</td>
<td>3</td>
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</table>
DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No. Oil Operators #4, Sec. 13, T. 4-3, 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 3-21-38, was filed.

Signed: Henry E. White

Date: July 18, 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 rest for water, state kind of material used, position and results of pumping or bailing.

PRODUCTION DATA

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-2</td>
<td>5379</td>
<td>Plg. 5361</td>
<td>Pulled rods and tubing.</td>
</tr>
<tr>
<td>6-4</td>
<td></td>
<td></td>
<td>Ran Lane-Wells gun perforator, shooting .45 caliber bullets. Reperforated: 5113-5140', 28 holes; Perforated: 5140-5148', 38 holes; Perforated: 5168-5175', 15 holes; Reperforated: 5280-5325', 46 holes; Perforated: 5325-5350', 50 holes. Fluid level at 1380' by bailer after perforating.</td>
</tr>
<tr>
<td>6-5</td>
<td></td>
<td></td>
<td>Ran 2½&quot; tubing to 5100'.</td>
</tr>
<tr>
<td>6-6</td>
<td></td>
<td></td>
<td>Swabbing through tubing. Well flows by heads part time.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bbls.</th>
<th>Bbls.</th>
<th>A.P.I. Gravity</th>
<th>Cut</th>
<th>Hours</th>
</tr>
</thead>
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<td>Gross</td>
<td>Net</td>
<td></td>
<td></td>
<td>Produced</td>
</tr>
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<td>52</td>
<td>51</td>
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<td>2.4</td>
<td>19 (Flowing and swabbing)</td>
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<tr>
<td>99</td>
<td>97</td>
<td>26.0</td>
<td>2.4</td>
<td>17 (Ran in rods and put on pump)</td>
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<td>101</td>
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<td>24</td>
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<tr>
<td>7</td>
<td>7</td>
<td>26.4</td>
<td>1.8</td>
<td>3 (Pull rods)</td>
</tr>
</tbody>
</table>

Perforations washed with Yowell Type "S" washer.

Ran 2½" upset tubing to 5384', ran in rods and pump, and put on production.
# Subsequent Work Report

**Operator**: Union Oil Company of California  
**Field**: Long Beach  
**Well No.**: Oil Operators #4, 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 3-21-38, was filed.

**Signed**: [Signature]

**Date**: July 18, 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 bailin.

<table>
<thead>
<tr>
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<td>Plg. 5361</td>
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<td>1941</td>
<td>6-28</td>
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<td>26.4</td>
<td>-</td>
</tr>
<tr>
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<td>110</td>
<td>95</td>
<td>(Pulled rods &amp; tubing)</td>
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<td>26.4</td>
<td>14.0</td>
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<tr>
<td>7-6</td>
<td>54</td>
<td>51</td>
<td>(Ran tubing, rods &amp; pump)</td>
<td>7-3</td>
<td>53</td>
<td>47</td>
<td>26.4</td>
<td>14.0</td>
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<tr>
<td>7-7</td>
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<td>51</td>
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<td>10.8</td>
</tr>
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<td>47</td>
<td>26.4</td>
<td>5.9</td>
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<tr>
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<td>7-6</td>
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<td>47</td>
<td>26.4</td>
<td>5.4</td>
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<td>7-7</td>
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<td>49</td>
<td>26.4</td>
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<td>81</td>
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<td>7-9</td>
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<td>7-11</td>
<td>52</td>
<td>50</td>
<td>26.4</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Measurement Datum

All measurements from top of rotary table which is 18" above top of derrick floor, or 31" above top of cement foundation piers.
**LOG AND CORE RECORD OF OIL OR GAS WELL**

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

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

<table>
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<tr>
<th>DEPTH TO</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
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<td>Top of Formation</td>
<td>Bottom of Formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4408</td>
<td>4545</td>
<td>137</td>
<td>Drilled</td>
<td>Sand and shale.</td>
</tr>
<tr>
<td>4545</td>
<td>4555</td>
<td>10</td>
<td>Cored</td>
<td>Sand. (See Core Record)</td>
</tr>
<tr>
<td>4555</td>
<td>5112</td>
<td>557</td>
<td>Drilled</td>
<td>Sand and shale.</td>
</tr>
<tr>
<td>5112</td>
<td>5379</td>
<td>267</td>
<td>Cored</td>
<td>Sand and shale. (See Core Record)</td>
</tr>
</tbody>
</table>

**TOTAL DEPTH - 5379'**
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER SIZE &amp; TYPE BARREL</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
<th>APPT. DIP</th>
<th>ANGLE OF HOLE</th>
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<tbody>
<tr>
<td>3-23-41</td>
<td>5-5/8&quot;</td>
<td>Barrett Robishaw</td>
<td>4500</td>
<td>4510</td>
<td>0.8</td>
<td>0.4</td>
<td>0.4</td>
<td></td>
<td></td>
<td>Mixed burnt shale and oil sand.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td></td>
<td>4510</td>
<td>4520</td>
<td>2.6</td>
<td>0.5</td>
<td></td>
<td></td>
<td>0.1</td>
<td>Hard fine to medium oil sand. Carbon particles. Good odor and fair cut. Hard burnt shale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td></td>
<td>4520</td>
<td>4530</td>
<td>1.3</td>
<td>0.4</td>
<td></td>
<td></td>
<td>0.9</td>
<td>Mixed mud and fine oil sand. Slight odor and fair amber cut.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td></td>
<td>4530</td>
<td>4535</td>
<td>0.7</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td>Hard sandstone shell (probably at 4527' by driller) Loose mixed oil sand and mud. Fair odor and cut.</td>
<td></td>
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</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td></td>
<td>4535</td>
<td>4545</td>
<td>2.0</td>
<td>0.5</td>
<td></td>
<td></td>
<td>1.5</td>
<td>Pieces of hard calcareous fine to medium grayish brown oil sand (carbonaceous). Fair odor and light amber cut. One piece has irregular vertical shale sand contact (possibly fault gouge).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-24-41</td>
<td>&quot;</td>
<td></td>
<td>4545</td>
<td>4555</td>
<td>0.6</td>
<td>0.3</td>
<td></td>
<td></td>
<td>0.3</td>
<td>Hard slightly calcareous grayish brown oil sand. Fair odor and light cut. 1/2&quot; pieces of firm fine to medium oil sand. Fair odor and amber cut. Oil sand has few grayish spots.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-24-41</td>
<td>&quot;</td>
<td></td>
<td>4555</td>
<td>4565</td>
<td>2.6</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>Pieces of hard calcareous grayish brown oil sand. One piece has small shale streak at approximately 75°. Possibly fault gouge. Fair odor and light cut. Soft fine brown oil sand. (Mud striations). Good odor and light amber ether cut.</td>
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<td>Pieces of hard brown shale. One apparent dip of 20°. Mixed shale and oil sand and mud. (free oil)</td>
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<td>Hard brown shale.</td>
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<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
<td>APPR. DIP</td>
<td>ANGLE OF HOLE</td>
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<td>3-24-41</td>
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<td>4365</td>
<td>4575</td>
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<td>Hard brown shale</td>
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<td></td>
<td></td>
<td>Barrett</td>
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<td></td>
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<td></td>
<td></td>
<td>Fine mushy brown oil sand. Good odor and amber cut.</td>
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<td></td>
<td></td>
<td>Robishaw</td>
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<td></td>
<td>Pieces of hard brown shale, badly broken by coring. Coring became hard at 4572'.</td>
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<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>4575</td>
<td>5112</td>
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<td>DRILLED INTERVAL</td>
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<td>Hard calcareous shale</td>
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<td>2.9</td>
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<td></td>
<td></td>
<td>Hard brown shale. Very poor possible dip of 45°.</td>
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<td>Fine brown oil sand, fair odor, good greenish cut.</td>
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<td></td>
<td></td>
<td>Firm brown shale.</td>
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<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5122</td>
<td>5132</td>
<td>3.7</td>
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<td></td>
<td></td>
<td></td>
<td>Sandy brown shale</td>
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<td></td>
<td>Soft mushy fine to medium brown oil sand; fair odor, greenish amber cut.</td>
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<td></td>
<td>Mushiness could be from rain.</td>
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<td></td>
<td>Sandy brown shale</td>
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<td></td>
<td>Chunks of oily brown shale.</td>
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<tr>
<td>3-28-41</td>
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<td>5132</td>
<td>5142</td>
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<td></td>
<td>Hard slightly calcareous brownish-black shale.</td>
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<td></td>
<td>Hard to firm, fine to medium, brown oil sand. Fair odor, good amber cut. Trade free oil on core.</td>
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<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5142</td>
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<td>1.1</td>
<td></td>
<td>Sandy brown shale (Shell by driller at 5148').</td>
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<td></td>
<td>Fine light brown oil sand, fair odor, dark greenish amber cut.</td>
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<td></td>
<td>Firm brownish-black shale, possible suggestion of 40° dip (?).</td>
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<tr>
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<td>No recovery</td>
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<td></td>
<td>Chunks brown shale scattered through 6' of mud.</td>
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<td>Sandy brown shale.</td>
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<td></td>
<td>Chunks brown shale.</td>
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<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5166</td>
<td>5171</td>
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<td></td>
<td>0.4</td>
<td></td>
<td></td>
<td>Chunks sandy brown shale with 2 seams fine brown oil sand. Greenish amber cut, free oil in fractures.</td>
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<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL REC.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
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<tr>
<td>3-29-41</td>
<td>5-5/8&quot;</td>
<td>5171 Barrett &amp; Robishaw</td>
<td>5175</td>
<td>5175</td>
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<td></td>
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<td>Hard brown shale.</td>
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<td>3-29-41</td>
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<td>5185</td>
<td>5185</td>
<td>2.6</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>Medium to slightly coarse with pebbles, firm, light brown oil sand, good greenish-amber cut.</td>
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<td></td>
<td></td>
<td>0.8</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>Hard brownish-black sandy shale.</td>
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<td></td>
<td>0.1</td>
<td>0.2</td>
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<td></td>
<td>Soft, fine, light brown oil sand.</td>
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<td></td>
<td></td>
<td>0.2</td>
<td>Good odor.</td>
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<td></td>
<td></td>
<td>1.2</td>
<td>1.4</td>
<td></td>
<td></td>
<td>Suggestion of 45° dip. Possible fracture at 60°.</td>
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<td>3-29-41</td>
<td></td>
<td>5185</td>
<td>5192</td>
<td>5192</td>
<td>4.4</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td>Firm brown sandy shale.</td>
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<td></td>
<td>0.6</td>
<td>0.6</td>
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<td></td>
<td>Soft fine light brown oil sand.</td>
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<td></td>
<td></td>
<td>0.1</td>
<td>Good odor.</td>
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<td></td>
<td></td>
<td>0.7</td>
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<td></td>
<td>Fine to medium, firm to soft, light brown oil sand; fair odor.</td>
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<td>Fine, firm, light brown oil sand.</td>
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<td></td>
<td>1.7</td>
<td>Dark amber cut. (Looks residual).</td>
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<td></td>
<td>Fine to medium with few pebbles, firm to soft, light brown oil sand, fair odor, light greenish-amber cut.</td>
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<td></td>
<td></td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td>Hard gray sandstone shell.</td>
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<tr>
<td>3-29-41</td>
<td></td>
<td>5192</td>
<td>5199</td>
<td>5199</td>
<td>2.8</td>
<td>2.8</td>
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<td>Fine to medium with few pebbles, firm to soft, light brown oil sand, fair odor, light greenish-amber cut.</td>
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<td>3-29-41</td>
<td></td>
<td>5199</td>
<td>5205</td>
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<td>0.3</td>
<td>X</td>
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<td>Hard gray sandstone shell.</td>
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<td>5205</td>
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<td>3.0</td>
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<td></td>
<td></td>
<td>Firm, fine to medium, light brown oil sand, poor odor, dark greenish-amber cut.</td>
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<td>3-29-41</td>
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<td></td>
<td></td>
<td>3.0</td>
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<td></td>
<td>Firm, fine, light brown oil sand with streaks gray sand. Poor odor, dark amber cut. (Looks residual).</td>
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<td>3-29-41</td>
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<td></td>
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<td>3.0</td>
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<td>Soft to firm, fine, light brown oil sand, poor odor, dark greenish cut.</td>
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<td></td>
<td>6.0</td>
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<td></td>
<td>Firm, biscuit, fine light brown oil sand, fair odor, dark cut.</td>
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<tr>
<td>Date</td>
<td>Core No.</td>
<td>Driller Size &amp; Type</td>
<td>From</td>
<td>To</td>
<td>Total Recr.</td>
<td>Shale</td>
<td>OIl Sand</td>
<td>Gray Sand</td>
<td>Shell</td>
<td>Description of Core</td>
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<tr>
<td>3-29-41</td>
<td>5-5/8&quot; 5211</td>
<td>Barrett-Robishaw</td>
<td>5217</td>
<td>5217</td>
<td>4.5</td>
<td>0.2</td>
<td>0.3</td>
<td>1.4</td>
<td>2.6</td>
<td>Firm to soft, fine to medium-fine gray sand. No odor. Hard black shale with possible fractures at 45° and 60°. Firm, fine, light brown oil sand with gray cast. No odor. Firm, fine to medium, light brown oil sand with fair odor. Good greenish-amber cut.</td>
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<tr>
<td>3-29-41</td>
<td>&quot; 5217</td>
<td>5223</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>Soft to firm, fine to medium-coarse with pebbles, brown oil sand with small streaks gray sand.</td>
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<tr>
<td>3-29-41</td>
<td>&quot; 5223</td>
<td>5229</td>
<td>2.1</td>
<td>2.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.6</td>
<td>0.6</td>
<td>Firm, fine to medium, brown oil sand with grayish cast. Dark cut. Hard brownish-black shale.</td>
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<tr>
<td>3-30-41</td>
<td>&quot; 5229</td>
<td>5235</td>
<td>1.0</td>
<td>1.0</td>
<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
<td>1.3</td>
<td>3.7</td>
<td>Firm to soft, fine to medium fine, brown oil sand with grayish cast. Medium amber cut. Free oil on core and in breaks. Firm to soft, fine to medium-fine, brown oil sand with dark ether cut. Fair odor. Free oil on core and in breaks. Hard brownish-black slightly sandy shale. Firm, fine to medium brown oil sand with free oil on core. Hard brownish-black shale Soft, mushy, fine, light brown oil sand. Hard brownish black shale Soft fine light brown oil sand. Hard, burnt, black shale.</td>
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<tr>
<td>3-30-41</td>
<td>&quot; 5235</td>
<td>5241</td>
<td>5.0</td>
<td>2.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.9</td>
<td>0.9</td>
<td>Firm gray sandy shale with narrow seams gray sand at 40°. Hard brownish-black shale with fracture at 45°. Mud with hunks dark brown shale. Hard dark brown burnt shale.</td>
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<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECVR</td>
<td>SHALE</td>
<td>OIL</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
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<tr>
<td>3-30-41</td>
<td>5-5/8&quot;</td>
<td>5246</td>
<td>5251</td>
<td>5251</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>Hard brownish-black shale with small hunks and pieces of underrage core.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barrett-Robishaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5251</td>
<td>5253</td>
<td>5253</td>
<td>0.9</td>
<td>0.9</td>
<td>X</td>
<td></td>
<td></td>
<td>Firm brownish-black shale with a narrow seam of fine gray sand.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5253</td>
<td>5259</td>
<td>5259</td>
<td>4.0</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td>Mud with hunks fairly soft brownish-black shale.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard, well-cut, dark brownish-black shale.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5259</td>
<td>5264</td>
<td>5264</td>
<td>5.0</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td>Hard well-cut dark brownish-black shale. Shows no bedding but gives consistent fracture at 45° when broken.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5264</td>
<td>5270</td>
<td>5270</td>
<td>3.0</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td>Mud interspersed with soft pieces dark brownish-black shale. Slightly sandy in spots.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5270</td>
<td>5276</td>
<td>5276</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5276</td>
<td>5280</td>
<td>5280</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5280</td>
<td>5281</td>
<td>5281</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECY.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
<td>APPT. DIP</td>
<td>ANGLE OF HOLE</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>---------------------</td>
<td>------</td>
<td>------</td>
<td>-------------</td>
<td>-------</td>
<td>----------</td>
<td>-----------</td>
<td>-------</td>
<td>---------------------</td>
<td>-----------</td>
<td>---------------</td>
</tr>
<tr>
<td>3-31-41</td>
<td>5-5/8&quot;</td>
<td>5281</td>
<td>5282</td>
<td>5292</td>
<td>0.0</td>
<td>0.2</td>
<td>2.8</td>
<td>0.5</td>
<td>6.5</td>
<td>Hard brownish-black shale with slickensides on 23° fractures. Apparent bedding approximately 45°. Soft to firm, fine light brown oil sand streaked with drilling mud. Good amber cut. Soft to firm brown sandy shale. Firm, fine, argillaceous light brown oil sand; good odor, dark greenish-amber cut. Occasional fine striations of sandy shale with bedding dip of approximately 35°. (At 5287', a streak of 0.05' firm gray sand and black shale. Sand had light amber cut and strong gassy odor). Hard brown shale, slightly sandy. Firm, fine light brown oil sand. Good odor. Hard brownish-black shale. Sand shale contact at approximately 35°. Firm, fine light brown oil sand. Dark greenish amber cut. Good odor. Hard brownish-black shale.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-1-41</td>
<td>5295</td>
<td></td>
<td>5310</td>
<td>5320</td>
<td>1.1</td>
<td>(6.0)</td>
<td>X</td>
<td></td>
<td></td>
<td>(Drilling mud with fragments hard brown black shale scattered through it. One fragment gray sandstone shell recovered). Soft muddy dark brown shale. Firm sandy shale with inter-bedded lenses of gray sand. May be burnt.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-1-41</td>
<td>5310</td>
<td></td>
<td>5325</td>
<td>5325</td>
<td>1.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>Hard brownish-black shale, broken up by coring. Firm, fine to medium-fine light brown oil sand. Good greenish-amber ether cut, fair odor. Soft to firm, muddy, black shale. Soft, mushy, fine to medium light brown oil sand. Firm, fine to medium-fine light brown oil sand. Hard gray sandstone shell. Soft, medium light brownish-gray sand with mud striations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER</td>
<td>SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECEI</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAIN SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>---------</td>
<td>-------------</td>
<td>------</td>
<td>----</td>
<td>-------------</td>
<td>--------</td>
<td>----------</td>
<td>-------------</td>
<td>-------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>4-1-41</td>
<td>5-5/8&quot;</td>
<td>Gauthey</td>
<td>5325</td>
<td>5340</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery</td>
<td></td>
</tr>
<tr>
<td>4-1-41</td>
<td>&quot;</td>
<td>5340</td>
<td>5346</td>
<td>5.7</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fina, fine to medium-fine, with pebbles, light brown oil sand. Fair odor, good greenish-amber cut.</td>
<td></td>
</tr>
<tr>
<td>4-2-41</td>
<td>5-5/8&quot;</td>
<td>Hughes</td>
<td>5346</td>
<td>5364</td>
<td>2.6</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rotary mud with a few streaks, soft black shale and gray sand. Fina, medium-fine, light brown oil sand. Good odor, good greenish-amber cut.</td>
<td></td>
</tr>
<tr>
<td>4-2-41</td>
<td>&quot;</td>
<td>5364</td>
<td>5379</td>
<td>1.5</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard gray sandstone shell.</td>
<td></td>
</tr>
</tbody>
</table>

- Soft-firm, fine-medium brown oil sand. (Grayish cast). Fair, but burnt odor, dark greenish cut. Whole core slightly burnt.
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES
Calif.

Name of Operator

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T.

R. D. BUSH, State Oil and Gas Supervisor

R. D. BUSH, State Oil and Gas Supervisor

By

DEPUTY

DUPPLICATE
Mr. W. S. Eggleston,

Los Angeles, Calif.

Dear Sir:

Operations at your well No. "OIL OPERATORS" 4 Sec. 13, T. 4S, R. 13W, S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by Chas. Corwin, Inspector, on April 14, 1941. There was also present E. G. Trostel, Engineer, and W. A. Mead, Driller.

Casing Record 13-3/8" cem. 757', 8-5/8" cem. 4005'.


The operations were performed for the purpose of demonstrating that no fluid has access to the well between the 4-3/4" and 8-5/8" casings.

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 5:00 P.M. AND MR. TROSTEL REPORTED THE FOLLOWING:

1. The hole was cleaned out to 431/4'.
2. A 6-5/8" rotary hole was drilled from 4408' to 5379'.
3. Mud fluid was circulated 3-1/2 hr. before cementing the casing.
4. Electrical core readings showed the top of the Brown Zone 4630'.
5. On April 10, 1941, 1572' of 4-3/4" - 16 lb. casing was cemented at 5376' with 200 sacks of Colton cement.
6. Cement was drilled out of the 8-5/8" casing from 3680' to 3804' and out of the 4-3/4" casing from 3804' to 5361', equivalent to 35 and 118 sacks, respectively.

THE INSPECTOR NOTED THE FOLLOWING:

1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open below 3915'.

The test was completed at 5:50 p.m.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT fluid does not have access to the well between the 4-3/4" and 8-5/8" casings.

cc- H. E. Winter Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By E. Hagler, Deputy
Mr. W. S. Bogleston,

Los Angeles, Calif. January 13, 1941.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to deepen "OIL OPERATORS"

Section 13, T.4 S., R.13 W., S.R. B & M., Long Beach Field, Los Angeles County,
dated Jan. 9, 1941, received Jan. 10, 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 4,408' - Plug 4,305'
13-3/8" C 757'
8-5/8" C 4,005' O.K.
565' 6-5/8" L 4,408', inc. 60' perf. C.P. 4344'
Report, 4348-4399' and perf. 4,005-4,028 and 4,070-4,130'.
It is proposed to deepen the well as a lease offset to Hilldon F.C. #4.
Last production - 1472 oil, 19,124 water - 31 days."

PROPOSAL:
"The proposed work is as follows:
1. Clean out to 4,408' and deepen to approximately 5,400'.
2. Cement 4-3/4" blank liner on bottom and gun perforate the top of the "S" zone and the top of the "T" Zone for production.
3. 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. Any hole to be sidetracked in any oil zone shall be filled with cement, if possible.
3. This division shall be notified to examine cores and/or electrical log before running the 4-3/4" casing.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
(a) A test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 4-3/4" and 6-5/8" casings.
(b) A production test within 10 days after the well has been placed on production.

cc- H. E. Winter
Long Beach
WJC100

R. D. BUSH
State Oil and Gas Supervisor

By Deputy

[Signature]
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 Cal. January 9 1941

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 deepening, redrilling, plugging, etc., in the well No. Oil Operators 4

(Cross out unnecessary words)

[Address information]

Long Beach Oil Field, Los Angeles County

The present condition of the well is as follows:

Total depth 4408' - Plug 4305'
13-3/8" C 757'
8-5/8" C 4005' O.K.
565' 6-5/8" L 4408', inc. 60' perf. C.P. 4344'
Reperf. 4348-4399' and perf. 4005-4028 and 4070-4130'

It is proposed to deepen the well as a lease offset to Hilldon F.C. #4.
Last production - 1472 oil, 19,124 water - 31 days

The proposed work is as follows:

1. Clean out to 4408' and deepen to approximately 5400'.
2. Cement 4-3/4" blank liner on bottom and gun perforate the top of the "S" Zone and the top of the "T" Zone for production.
3. Test on production.

Respectfully yours

[Signature]

UNION OIL COMPANY OF CALIFORNIA
Name of Company or Operator

By. Division Engineer.

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR: Union Oil Company of California
FIELD: Long Beach

Well No. Oil Operators #4, 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 March 21, 1938, was filed.

SIGNED: Henry W. W. [Signature]

Date: April 4, 1938
Title: District 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, 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 bailings.

Casing Record at End of Work:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4406</td>
<td>Landed 3&quot; upset tubing at 3979.27'. Put well on pump at 1:00 PM 3-21-38.</td>
</tr>
<tr>
<td>506</td>
<td>180 gross, 127 net, 21.7 grav., 22.4% cut - P 11 hrs.</td>
</tr>
<tr>
<td>306</td>
<td>452 &quot; 380 &quot; 22.1 22.4 P 24 &quot;</td>
</tr>
<tr>
<td>506</td>
<td>523 306 22.1 3.2 P 24 &quot;</td>
</tr>
<tr>
<td>554</td>
<td>545 534 23.6 2.0 P 24 &quot;</td>
</tr>
<tr>
<td>556</td>
<td>555 556 23.6 1.2 P 24 &quot;</td>
</tr>
<tr>
<td>531</td>
<td>531 525 23.6 1.1 P 24 &quot;</td>
</tr>
<tr>
<td>506</td>
<td>506 499 23.6 1.4 P 24 &quot;</td>
</tr>
<tr>
<td>493</td>
<td>493 488 23.6 1.1 P 24 &quot;</td>
</tr>
<tr>
<td>477</td>
<td>477 466 23.6 1.0 P 24 &quot;</td>
</tr>
<tr>
<td>465</td>
<td>465 459 23.6 1.2 P 24 &quot;</td>
</tr>
<tr>
<td>449</td>
<td>449 445 23.6 1.0 P 24 &quot;</td>
</tr>
<tr>
<td>4408</td>
<td>Depth - 4408, Plugged to 4305'.</td>
</tr>
<tr>
<td>565&quot;</td>
<td>13-3/8&quot; G 757'.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>565&quot; 6-5/8&quot; L 4408', inc. 60' perf.</td>
</tr>
<tr>
<td>C. P.</td>
<td>G. P. 4544'. Reperf. 4399-4348'</td>
</tr>
<tr>
<td>4130-4070 &amp; 4028-4005</td>
<td>Perfor. 4130-4070 &amp; 4028-4005</td>
</tr>
</tbody>
</table>

1938 Depth | Remarks
3-17 4406 | Took out pumping unit and pulled rods and tubing.
3-19 4408 | Cleared out liner to 4397'. Dumped 24 sacks of Victor construction cement in stages from 4597'.
3-20 4408 Plug 4305 Located top of cement plug at 4305'. Perforated 6-5/8" casing from 4130 to 4070 with 83 holes and 4028 to 4005 with 36 holes, using Lane-Wells 5-3/4" 12 shot gun with 45 caliber shells.
DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator: Union Oil Company of California  Field: Long Beach

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

Location: 346' S.W. Ly along the prolongation of the center line of San Antonio Drive from its intersection with the center line of Riverside Drive, thence N. W. L. 53.86' at right angles 653'.

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: 1-27-36  Signed: [Signature]

(Engineer or Geologist)  (Superintendent)  (Forms)

Commmenced drilling: January 1, 1936  Completed drilling:

Geological Markers

Junk  Wilber Shale  3656-3655

Alamitos Shale  3784-3842

Drilling tools: Cable X  Rotary

Total Depth: 4408  Plugged Depth:

Depth:

Casing Record (Present Hole)

Size of Casing  Depth of Shoe  Top of Casing  Weight of Casing  New or Second Hand  Seamless or Lapweld  Grade of Casing  Size of Hole Casing landed in  Number of Sacks of Cement  Depth of Cementing through perforations

13-3/8  757  Surface  45.97#  New  Seamless  Slip-Joint  17"  350

8-5/8  4005  "  32# & 36#  New & Used  "  C  12½"  400

6-5/8  4408  3943  26#  New  "  C  9-5/8 U. R. B  185  4344

Perforations

Size of Casing  From  To  Size of Perforations  Number of Rows  Distance Between Centers  Method of Perforations

6-5/8  4548 ft.  4408 ft.  120 mesh  16  6  Kobe

Electrical Log Depths: Schlumberger from 757 to 4408  (Attach Copy of Log)
**STATE OF CALIFORNIA**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL AND GAS**  

**LOG OF OIL OR GAS WELL—CONTINUED**

**FIELD:** Union Oil Company of California  
**COMPANY:** Long Beach

**Sec.**, **T.**, **R.**, **S.B.**  
**Well No:** Oil Operators #4

**FORMATIONS PENETRATED BY WELL**

<table>
<thead>
<tr>
<th>Depth to (Top of Formation)</th>
<th>Thickness</th>
<th>Name of Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>170</td>
<td>Surface clay</td>
</tr>
<tr>
<td>170</td>
<td>194</td>
<td>Sand and gravel</td>
</tr>
<tr>
<td>364</td>
<td>24</td>
<td>Sand and clay</td>
</tr>
<tr>
<td>368</td>
<td>325</td>
<td>Hard sand</td>
</tr>
<tr>
<td>713</td>
<td>47</td>
<td>Shale</td>
</tr>
<tr>
<td>760</td>
<td>617</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>1577</td>
<td>306</td>
<td>Hard sand</td>
</tr>
<tr>
<td>1983</td>
<td>892</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>2875</td>
<td>98</td>
<td>Sand</td>
</tr>
<tr>
<td>2990</td>
<td>127</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3112</td>
<td>122</td>
<td>Sand and streaks of shale</td>
</tr>
<tr>
<td>3114</td>
<td>2</td>
<td>Shell</td>
</tr>
<tr>
<td>3193</td>
<td>79</td>
<td>Sand and streaks of shale</td>
</tr>
<tr>
<td>3195</td>
<td>2</td>
<td>Shell</td>
</tr>
<tr>
<td>3230</td>
<td>35</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3231</td>
<td>1</td>
<td>Shell</td>
</tr>
<tr>
<td>3371</td>
<td>140</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3372</td>
<td>1</td>
<td>Shell</td>
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<tr>
<td>3372</td>
<td>153</td>
<td>Shale and sand</td>
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<td>3505</td>
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<td>Hard sand</td>
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<td>3530</td>
<td>30</td>
<td>Shale and sand</td>
</tr>
<tr>
<td>3550</td>
<td>84</td>
<td>Sand and streaks of shale</td>
</tr>
<tr>
<td>3644</td>
<td>86</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3730</td>
<td>150</td>
<td>Hard sand</td>
</tr>
<tr>
<td>3860</td>
<td>71</td>
<td>Shale and streaks of sand</td>
</tr>
<tr>
<td>3951</td>
<td>2</td>
<td>Shell</td>
</tr>
<tr>
<td>3953</td>
<td>62</td>
<td>Shale and streaks of sand (See Core Record)</td>
</tr>
<tr>
<td>4015</td>
<td>393</td>
<td>Shale and sand (See Core Record)</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 Operators #4  Sec. 15  T. 4-S  R. 13-W  S.R. B. & M.

Signed: Henry E. Winter

Date: 3-21-38  Title: DISTRICT ENGINEER

(Principal, Secretary or Agent)

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

Date  
1938

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>50</td>
<td>Spudded in with 18-1/2&quot; rotary bit and drilled to 50'. Cemented 18-5/8 conductor pipe at 50' with 46 sax Velo cement.</td>
</tr>
<tr>
<td>1-4</td>
<td>758</td>
<td>Drilled with 17&quot; rotary bit to 758. Cemented new 13-5/8 -65.97# National Seamless slip-joint casing at 758 with 350 sax Velo treated cement. Cementing operations witnessed and approved by Karmelich of D.O.G.</td>
</tr>
<tr>
<td>1-5</td>
<td>911</td>
<td>Found top of cement at 764. Cleaned out cement and plugs and drilled ahead with 12½ bits.</td>
</tr>
<tr>
<td>1-22</td>
<td>4015</td>
<td>Drilled with 12½ bits to 3955 and cored with 7-5/8 core barrels to 4015. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td>1-23</td>
<td>4015</td>
<td>Reamed out core hole with 12½ bit to 4005. Cemented 8-5/8 - 32# Grade C (1255 of 8-5/8 - 36# on bottom) 8 thread rounded seamless casing at 4005 with 400 sax cement (200 sax Victor Oil Well and 200 sax Victor Construction)</td>
</tr>
<tr>
<td>1-28</td>
<td>4070</td>
<td>Found top of cement at 3978. Drilled out cement and plugs to 4005 and cleaned out to 4010. Water Shut Off test on 8-5/8 casing at 4005 witnessed and approved by Corwin of D.O.G. Drilled with 7-5/8 bit to 4070.</td>
</tr>
<tr>
<td>2-3</td>
<td>4408</td>
<td>Cored with 7-5/8 core barrels to 4408. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td>2-5</td>
<td>4408</td>
<td>Under-reamed hole to 8½&quot; from 4007 to 4408. Landed 565' of 6-5/8 - 26# Grade C casing at 4408 including 60' of (16-2-6) 120 mesh Kobe perforated on bottom. Cemented liner through ports of Baker Whirler basket at 4544 with 125 sax of Victor Oil Well cement.</td>
</tr>
</tbody>
</table>
### History of Oil or Gas Well

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

**Well No.:** Oil Operators #4  
**Sec.:** 15  
**T.:** 4-S  
**R.:** 18-W  
**G.S.:** B. & M.

**Signed:**  
**Date:** 3-21-38  
**Title:** DISTRICT ENGINEER

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#### Results

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-11</td>
<td>4408</td>
<td>4408</td>
<td>Drilled out cement to 4343 and cleaned out to bottom of liner. Landed 3&quot; upset tubing at 4318 including 521' of Banash-Ross insert tubing on bottom.</td>
</tr>
<tr>
<td>2-17</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Changed from mud to water and swabbed fluid to 3000'. Very little oil or gas. Pulled tubing. Alternated between running 6-5/8 swab past perforations as agitator, and bailing mud from bottom. Landed 3&quot; upset tubing at 4384. Installed pumping unit and started well pumping at 7 P.M., 2-17-38.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interval</th>
<th>Gross</th>
<th>Net</th>
<th>2.5% Cut</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>15</td>
<td>14</td>
<td>21.2 grav.</td>
<td>1.4</td>
<td>P10 hrs.</td>
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<tr>
<td>17</td>
<td>16</td>
<td>&quot;</td>
<td>1.0</td>
<td>P24</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>&quot;</td>
<td>1.1</td>
<td>P24</td>
</tr>
<tr>
<td>31</td>
<td>30</td>
<td>&quot;</td>
<td>1.0</td>
<td>P24</td>
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<tr>
<td>28</td>
<td>27</td>
<td>&quot;</td>
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<td>P24</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>&quot;</td>
<td>1.0</td>
<td>P3 hrs. Pulled R&amp;T</td>
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</table>

2-28  

4408  

Open 4402  

"Cleand out sand to 4402. Re perforated 6-5/8 liner from 4399 to 4548 with 60 holes, using Lane-Well 5/8" - 12 shot gun with 45 caliber shells. Landed 3" upset tubing at 4385. Installed pumping unit and started well pumping at 10 P.M., 2-28-38)"

<table>
<thead>
<tr>
<th>Interval</th>
<th>Gross</th>
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<th>100.0% Cut</th>
<th>Remarks</th>
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<tr>
<td>3-1</td>
<td>30</td>
<td>21.2 grav.</td>
<td>7.8</td>
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<tr>
<td>3-2</td>
<td>26</td>
<td>&quot;</td>
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<td>3-3</td>
<td>24</td>
<td>21.2</td>
<td>2.6</td>
<td>P24</td>
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<td>3-4</td>
<td>20</td>
<td>21.2</td>
<td>13.3</td>
<td>P24</td>
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</table>
**History of Oil or Gas Well**

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

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

**Signed:** Henry E. White  
**Date:** 3-21-38

**District Engineer**  
(Chairman, Secretary or Agent)

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<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
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<th>Remarks</th>
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<tr>
<td>3-5</td>
<td>4408</td>
<td>Open 4402</td>
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<td>3-6</td>
<td>21</td>
<td>19</td>
<td>21.2 grav. 10.2% out F24 hrs.</td>
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<td>3-7</td>
<td>21</td>
<td>19</td>
<td>21.2</td>
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**Note:** The table above lists the dates, depths, and remarks for each operation.
<table>
<thead>
<tr>
<th>Date</th>
<th>Core No.</th>
<th>Driller</th>
<th>Shale</th>
<th>Oil Sand</th>
<th>Gray Sand</th>
<th>Shell</th>
<th>Description of Core</th>
<th>App't, DIP</th>
<th>Angle of Hole</th>
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<tr>
<td>1-21-38</td>
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<td>7-5/8&quot;</td>
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<td>Good Odor and Dark Amber Cut</td>
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<td>Hard Dark Brown Shale, badly broken and mixed with mud</td>
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<td>mixed with sand, Dark Odor and Amber Cut</td>
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<td>7.8</td>
<td>of Fine Gray Sand</td>
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*Henry E. Winter*
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Henry E. White
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Initials: J. E. W. (Henry E. Wente)
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| 1-31-38 | 18       | 7-5/8" SolI          | 4230 | 4245 | 12.6       | 0.8    | 0.4       | 1.2       | 0.5   | Firm Soft Fine to Medium Gray Sand  
Hard Dark Brown Silty Shale  
Firm Soft Fine Dark Grey Sand  
Hard Dark Brown Silty Shale with streaks of Fine Grey Sand in bottom  
0.2 - Good Dip of 21°  
Firm Soft Fine Grey Sand. Top 0.8  
Fine Silty Dark Grey, slightly Argillaceous  
Hard Dark Brown Silty Shale with streaks of Fine Grey Sand  
Firm Soft Fine Grey Sand. Top 0.4  
Fine Silty Dark Grey, slightly Argillaceous  
Hard Dark Brown Silty Shale and Fine Silty, slightly Argillaceous  
Dark Grey Sand. Shale and Sand badly broken and mixed with mud |
| 1-31-38 | 19       | "                    | 4245 | 4260 | 15.8       | 13.6   | 13.0      | 13.0      |       | Firm Soft Massive Medium to coarse Grey Sand. Sand poorly sorted and slightly Pebbly in spots |
| 1-31-38 | 20       | "                    | 4260 | 4275 | 15.0       |        | 13.0      |           |       | Firm to Firm Soft Massive Fine to coarse, poorly sorted Grey Sand - Pebbly in spots |
| 1-31-38 | 21       | "                    | 4275 | 4290 | 14.2       | 14.1   | 0.1       |           |       | Firm Soft to Soft Massive Fine to coarse Grey Sand. Top 0.9 badly mixed with mud. Hard Calcareous Sandstone Shell 3.6 from top |
| 2-1-38  | 22       | "                    | 4290 | 4305 | 15.0       | 12.2   |           |           |      | Firm Soft Massive Fine to coarse Grey Sand. Several fairly Hard, slightly Calcareous spots. Bottom 1.0 Fine and mixed with mud  
Firm Soft Medium Grey Sand. Inclusion of Silty Brown Shale 0.8 from top  
Hard Sandy Dark Brown Shale with inclusions of Grey Sand - Streaks of Grey Sand 0.5 from top |

Note—Bottom 2.5 of this Core was recovered in next Core bbl.
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<td>Good Odor and Dark Amber Cut</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Depth - 4408</td>
</tr>
</tbody>
</table>

Signature: Henry E. W_CTL
Special Report on Operations Witnessed

No. T1-33997

Los Angeles, Calif. March 30, 1938

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 4 Sec. 13, T. 4 S., R. 13 W., S.E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. J. Karmelich, Inspector, representative of the supervisor, on March 20, 1938. There was also present E. Winter, Engineer, and L. C. Mitchell, Driller.

Casing Record: 13-3/8" casing 757', 8-5/8" casing 4005', Junk None.


The operations were performed for the purpose of testing the location and hardness of a cement plug proposed to be placed from 4408' to 4320' in the process of plugging back, and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 9:00 A.M. AND MR. WINTER REPORTED THE FOLLOWING:
1. The 6-5/8" liner was cleaned out to 4397'.
2. On March 18 and 19, 1938, 24 sacks of Victor oil well cement was dumped, beginning at 4397'.

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4305' and brought up a sample of set cement.

The test was completed at 9:30 a.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4305' ARE APPROVED.

cc- H. E. Winter
Long Beach
FJ:OH

R. D. BUSH
State Oil and Gas Supervisor
By

Deputy
Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your supplementary proposal to drill Well No. "OIL OPERATORS" 4, Section 13, T. 24 S., R. 23 W., S. B. & M., Long Beach Field, Los Angeles County, dated Mar. 18, 1938, 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 present condition of the well is as follows:
4408 deep
13-3/8" C 755'
6-5/8" C 4005' OK
565' 6-5/8" L 4408', inc. 60' perf. C. P. 4344'
Reperf. 4348-4399
The well has been tested on the pump since March 1, 1938 with an average daily production of 13 gross, 16 net, 21.7 gravity."

PROPOSAL:
"The proposed work is as follows:
1. C. O. to 4408 and plug with cement under hydrostatic head to 4320'.
2. Test plug by Division of Oil & Gas.
4. Test on production."

DECISION:
The proposal is approved.

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

R. D. BUSH
State Oil and Gas Supervisor

By ___________________________ 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, Cal. March 16, 1938

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 deepening, redrilling, plugging or altering casing at well No. Oil Operators #4

(Cross out unnecessary words)

Long Beach Oil Field, Los Angeles County.

The present condition of the well is as follows:

4408 deep
13-3/8" C 757' 
8-5/8" C 4005' OK
565' 6-5/8" L 4408', inc. 60' perf. C.P. 4344'
Reperf. 4348-4399

The well has been tested on the pump since March 1, 1938 with an average daily production of 18 gross, 16 net, 21.7 gravity.

The proposed work is as follows:

1. C.O. to 4408 and plug with cement under hydrostatic head to 4320'.
2. Test plug by Division of Oil & Gas.
4. Test on production.

Respectfully yours

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
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES

Name of Operator

Address
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T. 4 S.

R. D. BUSH, State Oil and Gas Supervisor

R. D. BUSH, State Oil and Gas Supervisor

DUPLICATE

FORM 127. 46618 7-57 3M
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

Special Report on Operations Witnessed  

No. T 1-33847  

Los Angeles,  
Calif.  
February 24, 1938  

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

Agent for UNION OIL COMPANY OF CALIFORNIA  

DEAR SIR:  

Operations at your well No. "OIL OPERATORS" Sec. 13, T. 48 S., R. 13 W., S. B. B. & M.,  
Long Beach Field, in Los Angeles County, were witnessed by  
P. J. Karmelich, Inspector, representative of the supervisor,  
on Feb. 10, 1938. There was also present R. Rampton, Engineer, and  
H. Robinson, Superintendent.  

Casing Record  

13-3/8" cement 757'; 8-5/8" cement 4005';  
43 41/4'-4408', T. D. 4408', plugged with cement  
43 41/4'-3951'.  

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

and the data and conclusions are as follows:  

THE INSPECTOR ARRIVED AT THE WELL AT 11:00 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:  
1. A 7-5/8" rotary hole was drilled from 4005' to 4408'.  
2. On February 5, 1938, 565' of 6-5/8" - 26 lb. casing, including 60' of perforated,  
was landed at 4408' and was cemented through perforations at 43 41/4' with 125 sacks  
of Victor oil well cement.  
3. Cement was drilled out of the 8-5/8" and 6-5/8" casings from 3676' to 3951' (equivalent  
to 62 sacks) and the casing was cleaned out to 3951'.  
4. On February 11, 1938, at 3:00 a.m., the fluid was bailed to 2535'.  

THE INSPECTOR NOTED THE FOLLOWING:  
1. No fluid entered the well while standing 8 hr. for test.  
2. The fluid was located at 2535'.  
3. The sample of fluid from bottom tasted fresh.  
4. The hole was open to 3951'.  

The test was completed at 12:00 noon.  

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 6-5/8" casings.  

cc- H. B. Winter  
Long Beach  
PJK:G  

R. D. BUSH  
State Oil and Gas Supervisor  
By: [Signature]  
Deputy
Report on Test of Water Shut-off

No. T 1-33775

Los Angeles, Calif. February 9, 1938.

Mr. Ed. Jussan, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS" 4, 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 January 25, 1938, Mr. Chas. Corwin, was present as prescribed in Section 19, Chapter 718, Statutes 1911, as amended, and there were also present: R. Rampton, Engineer;

H. Robinson, Superintendent.

Location of water tested above 4005' and normal fluid level not determined.

Depth and manner of water shut-off:

\[
\begin{align*}
1263 & \text{ ft. of } 8-5/8 \text{ in. } 36 \text{ lb. } 1-23-38 \text{ casing } \\
2742 & \text{ ft. of } 8-5/8 \text{ in. } 32 \text{ lb. } \text{ cemented in shale Formation} \\
\end{align*}
\]

Victor construction oil well cement by casing method.

Water string was landed in 12 1/2" rotary hole.

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

Reported total depth of hole 4015'. Hole bridged from xx ft. to xx ft. Hole cleaned out to xx ft. for this test. See below

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

At See below oil bailed to xxx ft. drilling fluid bailed to xxx ft.

At Time and date top of fluid found at xxx ft., top of fluid found at xxx ft.

THE INSPECTOR ARRIVED AT THE WELL AT 3:15 p.m. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. A 12 1/2" rotary hole was drilled from 757' to 4015'.
2. Mud fluid was circulated for 1/2 hr. before cementing the casing.
3. Electrical core readings showed shale 3971' - 4005' (H 7)
4. No casing test was made.
5. 27' of set cement was drilled out of the 8-5/8" casing (equivalent to 8 sacks).
6. The Johnston tester was run into the hole on 4" drill pipe.
7. The wall packer was set at 3991'.
8. The tester valve was opened at 1:58 p.m. and remained open for 30 minutes. During this interval there was a good, steady blow throughout the test.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 1550' of fluid was found in the drill pipe above the tester, consisting of the following: 20' drilling fluid, 1230' gas and oil, 100' oil sand, equivalent to 22 bbl.

R. D. BUSH
State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2) Deputy
UNION OIL COMPANY OF CALIFORNIA

Well No. "OIL OPERATORS" 14, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M.,

2. The fluid sample taken from the bottom of the drill pipe tasted fresh.
3. The recording pressure bomb chart was torn, but could observe that the valve had been opened.

The test was completed at 4:20 p.m.

THE SHUT-OFF IS APPROVED.

cc- H. E. Winter
Long Beach

CC: OH

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy
629 South Hill Street
Los Angeles, California
January 15, 1936.

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 of January 13, 1936, giving the elevation of well No. "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S. B. E. & W., Long Beach field, as 53.35' U. S. G. S.

We are correcting our records accordingly.

Yours truly,

[Signature]

WJC:EM3
Deputy Supervisor.

CC - Mr. R. E. Bush (2)
Long Beach
Santa Fe Springs, Calif. Jan. 13, 1939

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #4", in the Long Beach Field, (Section 13, 4-S, 13-7), is 53.99 U.S.G.S.

The location is the same as in the original notice to drill.

Very truly yours,

Henry E. Winters
District Engineer.
Santa Fe Springs, Calif. Jan. 13, 1938

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #4", in the Long Beach Field, (Section 13, 4-S, 13-W), is 53.88 U.S.G.S.

The location is the same as in the original notice to drill.

Very truly yours,

[Signature]

Henry E. Went
District Engineer.
Special Report on Operations Witnessed

No. T. 1-33680

Los Angeles, Calif. January 20, 1938

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 4 Sec. 13, T. 4 S., R. 13 W., S. E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. J. KARMELOCH, representative of the supervisor, on January 4, 1938. There was also present R. Rampton, Engineer.

F. T. Shores, Driller.

Casing Record 18-5/8" cas. 50'; 13-3/8" cas. 757'; T. D. 758'.

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 4:00 P. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. A 17" rotary hole was drilled from 50' to 756'.
2. 757' of 13-3/8" @ 45 lb. casing was run into the hole to 757'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The 13-3/8" casing was cemented at the reported depth of 757' with 350 sacks of Velo 24 hour cement.
2. The cement was displaced from the casing with 673 cubic feet of drilling fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:42 a. m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT THE KNOWN SURFACE WATERS ARE ADEQUATELY PROTECTED.

cc- H. E. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By

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

Report on Proposed Operations  

No. P1-31816  

Los Angeles, Calif. December 23, 1937.  

Mr. Ed. Jusson, Jr.,  

Los Angeles, Calif.  

Agent for UNION OIL COMPANY OF CALIFORNIA  

Dear Sir:  

Your proposal to drill Well No. 4, Section 13, T. 4 S., R. 13 W., S.B. & M., Long Beach Field, Los Angeles County, dated Dec. 20, 1937, received Dec. 21, 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 965 feet N-W'ly along the center line of Pacific Electric R.R. from the intersection with the center line of Bixby Road (Proj.) and thence 289' S-W'ly at right angles. The elevation of the derrick floor above sea level will be determined later (Approx.-54'). *We estimate that the first productive oil or gas sand should be encountered at a depth of about 133#46x feet."  

*53.88' U.S.G.S. (Correction letter 1-18-38)  

PROPOSAL:  
"We propose to use the following strings of casing, either cementing or landing them as herein indicated: Size of Casing Weight Grade and Type Depth Landed or Cemented  
13-3/8 46# New 700 Cemented  
8-5/8 36# New 4000 Cemented  
6-5/8 liner 26# New 4000 Cemented  

The 6-5/8" liner to be a combination splice liner to be cemented through perforations at the base of the "JK" shale. 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 in a manner consistent with good drilling practice.  
4. This division shall be notified to examine cores and/or electrical log before running the 8-5/8" casing.  
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:  
(a) The cementing of the 13-3/8" surface casing.  
(b) A test of the effectiveness of the 8-5/8" shut-off.  
(c) A test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 8-5/8" and 6-5/8" casings.  

R. D. BUSH  
State Oil and Gas Supervisor  

By [Signature] Deputy  

cc- H. E. Winter  
Long Beach  
W3/OE
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 drilling well No. "Oil Operators" 4, Sec. 13, T.4-S, R. 13-W, S.B. B. & M., Long Beach Field, Los Angeles County.

Lease consists of N.-W.1/4 along the center line of Pacific Electric R.R. from the intersection with the center line of Fifty Road (Proj.) and thence 200 ft. E. or W. from Fifty Road (Proj.) at right angles.

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

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

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>Grade and Type</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>Cemented</td>
</tr>
<tr>
<td>8-5/8</td>
<td>36#</td>
<td>New</td>
<td>4000</td>
<td>Cemented</td>
</tr>
<tr>
<td>6-5/8 liner</td>
<td>26#</td>
<td>New</td>
<td>4400</td>
<td>Cemented</td>
</tr>
</tbody>
</table>

The 6-5/8" liner to be a combination splice liner to be cemented through perforations at the base of the "JK" shale.

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.

Address: Santa Fe Springs

Telephone number: Whittier 426-87

UNION OIL COMPANY OF CALIFORNIA,
(Name of Operator)

By [Signature]
District Engineer

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
Mr Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049  

Your report of abandonment of well “Nwlu” 8-4, A.P.I. No. 037-06415, Section 13, T. 04S, R. 13W, SB B&M., Long Beach field, Los Angeles County, dated 2/9/2014, received 3/6/2014, has been examined in conjunction with 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 filing of well records.


2. Site inspection made and approved on 3/21/2014.

3. This well has been abandoned in compliance with Division permit number 113-0597 issued on 7/19/2013.

Blanket Bond

Steven Bohlen  
State Oil and Gas Supervisor

By Daniel J. Dudak, District Deputy
Mr Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049

Cypress, California  
July 13, 2015

Your operations at well "Nwibu" 8-4, A.P.I. No. 037-06415, Sec. 13, T. 04S, R. 13W, SB B.&M., Long Beach field, in Los Angeles County, were witnessed on 2/11/2014, by Michael Okafor, a representative of the supervisor.

The operations were performed for the purpose of **plugging and abandonment**.

**DECISION:**  APPROVED

**NOTE:** The required Class II2M blowout prevention equipment was inspected and approved on **1/23/2014**.

**DEFICIENCIES NOTED AND CORRECTED:** None

---

MO/epm:

---

State Oil and Gas Supervisor:

---

District Deputy:

---
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator: C.R.G Properties
Well No.: "Nwlbu" 8-4
API No.: 037-06415
Sec.: 13
T.: 4S
R.: 13W
SB: B&M
Field: Long Beach
County: Los Angeles
On: 2/11/15

Mr / Ms: Michael N. Okafor
representative of the supervisor, was present from 1000 to 1200.

There were also present
Casing record of well: 18 5/8" cem 50'; 13 3/8 cem 757'; 8 5/8" cem 4005' WSO, drilled thru 3165', cp 2465', pulled fr 220'; 5-1/2" cem 3017'-5924', perf 4375' WSO, perfs 5712'-5776'. TD (present hole) 5925'. Plugged w/cem 5925'-2805', w/245 cf cem below 2217', w/cem 2217'-2117 ±, 210-0.

The operations were performed for the purpose of: Abandon (1)

- The plugging cementing operations as witnessed and reported are approved.
- The location and hardness of the cement plug @ ____________ are approved.

| Hole size: 17" fr. 50' To 757' 12 1/4" to 4005' & 7 5/8" To 5925' |

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed Away</th>
<th>Final Pressure</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top</td>
<td>Bottom</td>
<td>Date</td>
<td>MO-Depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-1/2&quot;</td>
<td>15.5#</td>
<td>3017&quot;</td>
<td>5924&quot;</td>
<td>1/17/14</td>
<td>T@ 5878'</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>32/36#</td>
<td>0</td>
<td>4005'</td>
<td>1/29/14</td>
<td>T@ 2475'</td>
</tr>
</tbody>
</table>

Casing/tubing recovered: 8-5/8
- Shot/cut at 220
- Shot/cut at ____________
- Shot/cut at ____________
- Pulled fr. 220
- Pulled fr. ____________
- 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>Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>80/30</td>
<td>1/28/14</td>
<td>25</td>
<td>2805'</td>
<td>2400</td>
<td></td>
<td>C.L. Cullum</td>
</tr>
<tr>
<td>72/30</td>
<td>1/30/14</td>
<td>120</td>
<td>2117</td>
<td>100</td>
<td></td>
<td>J. Collender</td>
</tr>
</tbody>
</table>

Note: BOPI Class IIM 1/23/14 CLC c/o 5875'

<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>--------------</td>
<td>---------</td>
<td>-------------------</td>
<td>------</td>
</tr>
<tr>
<td>1/27/2014</td>
<td>446 cf</td>
<td>T@ 5875'</td>
<td>1000</td>
</tr>
<tr>
<td>1/29/2014</td>
<td>245 cf</td>
<td>T@ 2475'</td>
<td>0800</td>
</tr>
<tr>
<td>1/30/2014</td>
<td>34 cf</td>
<td>T@ 2217'</td>
<td>1100</td>
</tr>
<tr>
<td>2/3/2014</td>
<td>225 cf</td>
<td>T@ 210'</td>
<td>1100</td>
</tr>
<tr>
<td>2/10/2014</td>
<td>23 cf</td>
<td>T@ 20'</td>
<td>1530</td>
</tr>
</tbody>
</table>

OGDF0 (9597) Printed on recycled paper
CONTRACTOR: allenco

UNCORRECTABLE DEFICIENCIES: None

DEFICIENCIES NOTED AND CORRECTED: None
**CHECK LIST – RECORDS RECEIVED AND WELL STATUS**

- **Company:** C.R.G. Properties, LTD
- **API#:** 037-06415
- **County:** Los Angeles
- **Well:** NWLB 8-4
- **Sec.:** 13, **T.:** 4S, **R.:** 13W, **S.B.B. & M.**
- **Field:** Long Beach

### RECORDS RECEIVED

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>3/6/2014 (2)</td>
<td>Active</td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td></td>
<td>Drilling</td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
<td></td>
<td>Abandoned</td>
</tr>
<tr>
<td>Directional Survey</td>
<td></td>
<td>Idle</td>
</tr>
<tr>
<td>Sidewall Samples</td>
<td></td>
<td>Reabandoned</td>
</tr>
<tr>
<td>Date final records received.</td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Electric Logs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### WELL TYPE

- Oil
- Gas
- Water Source
- Observation
- Exploratory
- Dry Hole

- **WATERFLOOD**
- **WATER DISPOSAL**
- **CYCLIC STEAM**
- **STEAM FLOOD**
- **FIRE FLOOD**
- **OTHER**

**EFFECTIVE DATE:** 2-12-14

**REMARKS:**

### ENGINEERS CHECK LIST

- Summary, History & Core Record (Dupl.)
- Electric Log
- Operator's Name
- Signature
- Well Designation
- Location
- Elevation
- Notices
- "T" Reports
- Casing Record
- plugs
- Directional Survey
- Production/Injection (FAP Codes: 4120-300)
- E Well on Prod., enter EDP
- Surface Inspection Required
- Surface inspection Waived (Island)
- Well site restoration deferred (common cellar)
- Final Letter Required
- Other:

**CLERICAL CHECK LIST**

- Location change
- Elevation change
- Form OGD121
- Form OGD150b (Release of Bond)
- Duplicate logs to archives
- Notice of Records Due
- EDP
- District Date Base
- Final Letter (OG159)
- Update Center

**FIELD CHECK LIST**

- Date Surface Inspection Completed: 3/11/14
- Other:

**RECORDS NOT APPROVED**

(Reason:)

**RECORDS APPROVED**

(Signature)

RELEASE BOND

Date Eligible

(Use date last needed records received.)

MAP AND MAP BOOK

OGD2 1/16/14 CYPRESS
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.

01-23-14  M.I.R.U. – Installed and tested BOPE—Witnessed by C. Cullum w/DOGGR - Secured Well

01-24-14  R.I.H. W/5 ½" Scraper on 2 7/8" Tubing tagged fill at 5850' - Circ.with water w/returns of oily water and gas - P.O.H. - Witnessed by E. Tabor w/ DOGGR – Secured well

01-27-14  R.I.H. Wt/Tbg. Tagged at 5875' - Mixed and pumped 446 cu/ft. (391 sxs) class G cement Witnessed by Z. Amilhussin w/DOGGR - Secured well.


01-29-14  R.I.H. Wt/tbg.tail at 2475' mixed and pumped 245 cu/ft.(215 sxs) class G cement – Squeezed away 134 cu/ft prs. At 1000 psi. – Witnessed by Z. Amilhussin w/ DOGGR - secured well


01-31-14  Removed B.O.P.E. Pulled 220' of 8 5/8 “ casing – Witnessed by Z. Amilhussin w/DOGGR – secured well

02-03-14  R.I.H. W/tbg. Tail at 210' mixed and pumped 225 cu/ft.(197 sxs) class G cement – cement to surface – P.O.H.- Witnessed by C. Collum w/DOGGR – R.D.M.O.

02-10-14  Dug down around well and cut casing 5' below surface – Topped off surface plug w/ 23 cu/ft.(20sxs) class G cement Witnessed by P. Kaufman w/DOGGR – Secured well

02-12-14  Z. Amilhussin w/DOGGR witnessed surface tag and welding of I.D.Plate - Backfilled well location - Job complete.
**BLOWOUT PREVENTION EQUIPMENT MEMO**

Operator: C.R.G. Properties, LTD  
Well: "NWLB" 8-4  
Field: Long Beach  
County: L.A.

**VISITS:**  
1st: 1/23/14  
2nd:  
Contractor: Allenco  
Rig #: 2  
Contractor's Rep. & Title: Derick Beyer, Driller (Allenco)

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y X N □

**DECISION:** The blowout prevention equipment and its installation on the 8 5/8" casing are approved.

**PROPOSED WELL ONS:** Abandonment  
Hole size: __________ 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>
<tbody>
<tr>
<td>8 5/8&quot;</td>
<td>32#</td>
<td></td>
<td></td>
<td>1262'</td>
</tr>
</tbody>
</table>

**BOP STACK**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Rd</td>
<td>2 7/8</td>
<td>Townsend</td>
<td></td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rd</td>
<td>CSO</td>
<td>Townsend</td>
<td></td>
<td>81</td>
<td>9</td>
<td>3M</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ACTUATING SYSTEM**

<table>
<thead>
<tr>
<th>Accumulator Unit(s) Working Pressure</th>
<th>psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
</tr>
<tr>
<td>Distance from Well Bore</td>
<td>ft.</td>
</tr>
<tr>
<td>Accum. Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td>gal.</td>
</tr>
<tr>
<td>Precharge</td>
<td>psi</td>
</tr>
<tr>
<td>Fill-up Line</td>
<td></td>
</tr>
<tr>
<td>Kill Line</td>
<td></td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td>2</td>
</tr>
<tr>
<td>Check Valve(s)</td>
<td></td>
</tr>
<tr>
<td>Aux. Pump Cnct.</td>
<td></td>
</tr>
<tr>
<td>Choke Line</td>
<td></td>
</tr>
<tr>
<td>Control Valve(s)</td>
<td>3M</td>
</tr>
<tr>
<td>Pressure Gauge</td>
<td></td>
</tr>
<tr>
<td>Adjustable Choke(s)</td>
<td></td>
</tr>
<tr>
<td>Bleed Line</td>
<td></td>
</tr>
<tr>
<td>Upper Kelly Cock</td>
<td></td>
</tr>
<tr>
<td>Lower Kelly Cock</td>
<td></td>
</tr>
<tr>
<td>Standpipe Valve</td>
<td></td>
</tr>
<tr>
<td>Standpipe Pres. Gau.</td>
<td></td>
</tr>
<tr>
<td>Pipe Safety Valve</td>
<td>27/8</td>
</tr>
<tr>
<td>Test Press.</td>
<td></td>
</tr>
</tbody>
</table>

**CONTROL STATIONS**

| Manifold at accumulator unit        |     |
| Remote at Driller's station         |     |
| Other: hand pump                    |     |

**EMERG. BACKUP SYSTEM**

<table>
<thead>
<tr>
<th>N° Cylinders</th>
<th>L</th>
<th>Press. (psi)</th>
<th>Wkg. Fluid (gal.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L = 55</td>
<td>1825</td>
<td>4 gal.</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HOLE FLUID MONITORING EQUIPMENT**

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

**HOLE FLUID TYPE**

<table>
<thead>
<tr>
<th>Hole Fluid Type</th>
<th>Weight</th>
<th>Storage Pits (Type &amp; Size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>no fluid has been added</td>
<td>70 bbl Mud Tank</td>
<td></td>
</tr>
<tr>
<td>(fluid in well unknown)</td>
<td>2,500 bbl storage tanks</td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:** two of the valves on the kill line need handles.
Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to Abandon well "NWLBU" 8-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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. The proposed cement plug from 5878’ to 3480’ shall extend from 5878’ to at least 2817’.
6. Prior to shooting any perforations braidenhead squeezes, a pressure test of the 8-5/8” casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
7. 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.
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. No program changes are made without prior Division approval.
11. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

(Continued on page 2)

No Bond Required Bond

cc: Update
    EDP
    AllenCo.
    DOGGR – Dist. 1 (Cypress)

Engineer Ellen Plaza Moser
Office (714) 816-6847

EPM/epm

Tim Kustic
State Oil and Gas Supervisor

By

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 8/2011)
Page 1 of 2
b. Witness the clean-out depth at 5878'.
c. Witness the placing, location and hardness of the cement plug from 5878' to 2817'.
d. Witness the mudding operations.
e. Witness a pressure test of the 8-5/8" casing.
f. Witness the cement squeeze through the perforations at 2465' or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 2475' to 2150'.
h. Witness the cement squeeze through the perforations at 200' through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.
j. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250'.
   b. Top of the Upper Gas Zone at 2475'.
   c. Top of the Wilbur Zone at 3680'.
   d. Top of the Alamitos Zone at 3882'.
   e. Top of the Brown Zone at 4400'.
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 Abandon well "NWLBU" 8-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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. The proposed cement plug from 5878' to 3480' shall extend from 5878' to at least 2817'.
6. Prior to shooting any perforations braidedhead squeezes, a pressure test of the 8-5/8" casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
7. 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.
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. No program changes are made without prior Division approval.
11. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

(Continued on page 2)

Tim Kustic
State Oil and Gas Supervisor

By
For: Daniel J. Dudak, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)
Page 1 of 2
b. Witness the clean-out depth at 5878'.

c. Witness the placing, location and hardness of the cement plug from 5878' to 2817'.

d. Witness the mudding operations.

e. Witness a pressure test of the 8-5/8" casing.

f. Witness the cement squeeze through the perforations at 2465' or through a retainer or packer (if casing integrity is not demonstrated).

g. Witness the placing, location and hardness of the cement plug from 2475' to 2150'.

h. Witness the cement squeeze through the perforations at 200' through a retainer or packer (if casing integrity is not demonstrated).

i. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.

j. Inspect the restored well site.

NOTE:

1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250'.
   b. Top of the Upper Gas Zone at 2475'.
   c. Top of the Wilbur Zone at 3680'.
   d. Top of the Alamitos Zone at 3882'.
   e. Top of the Brown Zone at 4400'.

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 Abandon well "Nwibu" 8-4, A.P.I. No. 037-06415, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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 braidedhead squeezes, a pressure test of the 8-5/8" 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 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.
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. No program changes are made without prior Division approval.
10. 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 5678'.

(Continued on page 2)

No Bond Required Bond

cc: Update
    EDP
    AllenCo
    DOGGR – Dist. 1 (Cypress)

Engineer: Ellen Plaza Moser
Office: (714) 816-8847

Tim Kustic
State Oil and Gas Supervisor

By: MAC
For: Daniel J. Dudak, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)
Page 1 of 2
c. Witness the placing, location and hardness of the cement plug from 5678’ to 3480’.
d. Witness the mudding operations.
e. Witness a pressure test of the 8-5/8” casing.
f. Witness the cement squeeze through the perforations at 2465’ or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from 2475’ to 2150’.
h. Witness the cement squeeze through the perforations at 200’ through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 210’ to surface’, including all annular spaces.
j. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2250’.
b. Top of the Upper Gas Zone at 2475’.
c. Top of the Wilbur Zone at 3680’.
d. Top of the Alamitos Zone at 3882’.
e. Top of the Brown Zone at 4400’.
Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☒ / re-abandon ☐ well "Nwbfu" 8-4 , API No. 037-06415 (Check one)

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

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See Attachment

The total depth is: 5925 feet. The effective depth is: 5878 feet.

Present completion zone(s): see attachment. Present zone pressure: N/A psi.

Oil or gas shows: see attachment feet. Depth to base of fresh water: 2250 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes ☒ No ☐

The proposed work is as follows: (A complete program is preferred and may be attached.)
See Attachment.

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
C.R.G. Properties, Ltd

Address
2109 GUNDRY AVE.

City/State
SIGNAL HILL 90755

Telephone Number: 562 989-6100

Signature

Name of Person Filing Notice
MICK BEYER

Individual to contact for technical questions:
MICK BEYER

Telephone Number: 310 505-9787

E-Mail Address: Mbeyer@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

OG108 (1/09)
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” 8-4 (037-06415), 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: 5925'. Effective Depth: 5878'. Elevation of Kelly Bushing (KB) above sea level: 60'.
5. Casing: 18-5/8" casing cemented 50'; 13-3/8" 36# casing cemented 757' with estimated top of cement behind pipe at 124' +/-; 8-5/8" cemented 4005' with estimated top of cement behind pipe at 2890', WSO; 5-1/2" cemented 3017'-5925',perfs. 4375' WSO, 5712'-5730', 5734'-5754', 5761'-5776'.
6. Tubing: Unknown
7. Base of Fresh Water (BFW): 2250'
8. Producing Zone(s): Brown
9. Hole Fluid: Unknown
10. Junk: Unknown
11. Plugs: 5978 to 5925,
12. Comments: Top of Brown zone 4400', top of Alamitos zone 3882', top of Wilbur zone 3680', and top of Upper Gas zone 2478'.

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 IIIM, 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 5878'.

10. Run in scraper. Scrape the 8-5/8" and 5 ½" casings.

11. Run in hole with tubing (if tag high, clean out fill to 5878').

12. The well shall be plugged with cement from 5878' to 3480'.

13. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.

14. The 8-5/8” casing shall be perforated from 2475 to 2465’. Get an injection rate or a breakdown.

15. Sufficient cement shall be squeezed into the perforations to fill to 2150’ outside the 8-5/8” casing.

16. The well shall be plugged with cement from 2475’ to 2150’.

17. The 8-5/8” casing shall be cut and pulled from 210’.

18. The 13” casing shall be perforated from 210’ to 200’. Sufficient cement shall be squeezed into the perforations to fill to surface.

19. The well shall be plugged with cement from 210’ to surface.

20. All casing must be removed from between 5’ and 10’ below ground level.

21. 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.

22. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

23. 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.

24. 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.

25. 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.
STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REVISED

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 18, 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
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
Window milled 3163-7164 for 5.7 (see sheet 3)

T.D. 1404 (4 1/2"

T.D. 1852 (6 1/2"

C.E.M. 3696 - 4634 100 3x 6/18/67

Pref. 4/19/40-4325
8/26/49 (1 1/2"

Pref. 4/800-4535
10/14/41 - 11/11/41

Pref. 4/800-4920
8/18/45

Pref. 5/13-5140, 5280-5325
4/15/41-5/10/41

Pref: 5/13-5325 6/4/41

Rep. Pref: 5/13-5350 8/14/44

C.E.M. plus 5361-5376

R.D. 1 - Rework Elevation 1/11/41 #5.7

* Equivalent or 15 5/8" called out in hole upon cleanup, leaving 14 7/8" to be outside casing
BFN 2260'

Uppers 2476'

Upper Wilbur 2880'

Alamitos Lower 4 3882'

Brown 4 4400'

S.T. @ 3165'

C.M. @ 3260, 50 sp ft.

Drilled out to 3165 for S.T.

5/90 @ 4375'

Perfs: 5712 - 5776 6/23/67

6/20/67 CEM 579cf 5925

Float collar plug @ 5878 6/22/67

TD 5925

RDZ
# REPORT OF PROPERTY AND WELL TRANSFER

**Field or County:** Long Beach  
**Former Owner:** Pacific Energy Res.  
**District:** District 1 (Cypress, California)  
**Date:** July 26, 2000

<table>
<thead>
<tr>
<th>Well Name</th>
<th>API Number</th>
<th>Section Township Range</th>
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</thead>
<tbody>
<tr>
<td>&quot;Nwibu&quot; 5-2</td>
<td>037-00397</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-3</td>
<td>037-09786</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-4</td>
<td>037-09797</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 8-3</td>
<td>037-06496</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td><strong>&quot;Nwibu&quot; 8-4</strong></td>
<td><strong>037-06415</strong></td>
<td><strong>Sec. 13-4S-13W</strong></td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 8-7</td>
<td>037-22512</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-2</td>
<td>037-13525</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-3</td>
<td>037-09791</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-4</td>
<td>037-00392</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-5</td>
<td>037-00142</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-6</td>
<td>037-00393</td>
<td>Sec. 13-4S-13W</td>
</tr>
</tbody>
</table>

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

**Date of transfer:** May 9, 2000

**New Owner:** C.R.G. Properties, Ltd. C0250

**Address:** 15332 Antioch Street, Suite 338, Pacific Palisades, CA 90272

**Telephone:** (310) 808-9071

**Reported by:** OG34A received 6/2/2000 signed by both parties

**Confirmed by:** Same as above

**New operator new status:** PA  
**Designation of Agent:** Mark Pender

**Old operator new status:** PA

**See operator file for C.R.G. Properties, Ltd. for details.**

**OPERATOR STATUS ABBREVIATIONS**

- **PA** – Producing Active
- **NPA** – No potential, Active
- **Pi** – Potential Inactive
- **NPI** – No potential, inactive
- **Ab** – Abandoned or No More Wells

**FORM AND RECORD CHECK LIST**

<table>
<thead>
<tr>
<th>Record Type</th>
<th>Form</th>
<th>Initials</th>
<th>Date</th>
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<tbody>
<tr>
<td>Well Records</td>
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<td>7/27/2000</td>
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<tr>
<td>Log Records</td>
<td>52</td>
<td>7/31/2000</td>
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</tr>
<tr>
<td>Production Repts</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deputy Supervisor:** R. K. Baker

**Signature:** Floyd M. Leeson

**Operations Engineer:**

OGD156 12-2-98 Cypress
WELL TRANSFER NOTICE

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

<table>
<thead>
<tr>
<th>Field or county</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former owner</td>
<td>Long Beach</td>
</tr>
<tr>
<td>Name and location of well(s)</td>
<td>Sec. 13-4S-13W S.B.B.&amp;M.</td>
</tr>
<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>

**New owner**
Petro Resources, Inc.

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

**Type of organization**
Corp.

**Telephone No.**
805/323-4118

**Date of transfer,**
May 1, 1983

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

**Confirmed by**

**New operator new status**
PA

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

**Old operator new status**
PA

Deputy Supervisor
V. F. Gaede

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>
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<tr>
<td>Map and book</td>
<td>CP</td>
<td>7-1-83</td>
<td>Notice to be cancelled</td>
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<tr>
<td>Bond status</td>
<td>CP</td>
<td>7-7-83</td>
<td>EDP for Conservation Committee</td>
<td>CP</td>
<td>7-7-83</td>
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<tr>
<td>Well records</td>
<td>CP</td>
<td>7-7-83</td>
<td>L. A. Assessors</td>
<td>CP</td>
<td>7-7-83</td>
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<td>Electric logs</td>
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<td>7-7-83</td>
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<td>CP</td>
<td>7-7-83</td>
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<tr>
<td>Production reports</td>
<td>CP</td>
<td>7-7-83</td>
<td></td>
<td>CP</td>
<td>7-7-83</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.B. B. & M., Long Beach field, Los Angeles County, District No. 1, has been received;

and in accordance with Section 3203, Public Resources Code, reading in part as follows:

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

the proposed change in designation is hereby authorized as follows:

<table>
<thead>
<tr>
<th>Old Designation</th>
<th>API</th>
<th>New Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Oil Operators&quot;</td>
<td>037-09792</td>
<td>NWLB 8-1</td>
</tr>
<tr>
<td>1 (See)</td>
<td>2</td>
<td>NWLB 8-2</td>
</tr>
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<td></td>
<td>3</td>
<td>NWLB 8-3</td>
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<td></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></td>
<td>2</td>
<td>NWLB 5-2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>NWLB 5-3</td>
</tr>
<tr>
<td></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></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></td>
<td>3</td>
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<td>NWLB 9-5</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

RWS:sc

cc: Update Center
E.D.P.
Conservation Committee

By
Acting Deputy Supervisor
R. A. Ybarra

M. G. Mefferd
State Oil and Gas Supervisor

Re: Book pg 1137
Rev. 11/37
# REPORT OF PROPERTY AND WELL TRANSFER

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

### Name and location of well(s)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Completion Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sec. 11-4S-13W</td>
<td>&quot;Dominguez&quot; 2-10</td>
<td>(037-11859)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Flood Control&quot; 6</td>
<td>(037-00393)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Oil Operators&quot; 1</td>
<td>(037-09792)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Oil Operators&quot; 2</td>
<td>(037-09793)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Oil Operators&quot; 3</td>
<td>(037-06466)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Oil Operators&quot; 4</td>
<td>(037-06415)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Pool&quot; 1</td>
<td>(037-09795)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Pool&quot; 2</td>
<td>(037-00397)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Pool&quot; 3</td>
<td>(037-09796)</td>
</tr>
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<td>Sec. 13-4S-13W</td>
<td>&quot;Pool&quot; 4</td>
<td>(037-09797)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Amebco&quot; 1</td>
<td>(037-09788)</td>
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<tr>
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<td>Sec. 13-4S-13W</td>
<td>&quot;Flood Control&quot; 2</td>
<td>(037-13525)</td>
</tr>
<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Flood Control&quot; 3</td>
<td>(037-09791)</td>
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<tr>
<td>Sec. 13-4S-13W</td>
<td>&quot;Flood Control&quot; 4</td>
<td>(037-00392)</td>
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<td>&quot;Flood Control&quot; 5</td>
<td>(037-00142)</td>
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<tr>
<td>Sec. 14-4S-13W</td>
<td>&quot;Dominguez&quot; 1</td>
<td>(037-11858)</td>
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</tbody>
</table>

### 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>
</tr>
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<tbody>
<tr>
<td>PA</td>
<td>Producing Active</td>
</tr>
<tr>
<td>NPA</td>
<td>No Potential Active</td>
</tr>
<tr>
<td>P1</td>
<td>Potential Inactive</td>
</tr>
<tr>
<td>NP1</td>
<td>No Potential Inactive</td>
</tr>
<tr>
<td>An</td>
<td>Abandoned or not in service</td>
</tr>
</tbody>
</table>

### FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<tbody>
<tr>
<td>Map</td>
<td>Map and book</td>
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<td>1-16-79</td>
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<tr>
<td>EER</td>
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<tr>
<td>FDP Update</td>
<td>FDP Update</td>
</tr>
<tr>
<td>Conservation Committee</td>
<td>Conservation Committee</td>
</tr>
<tr>
<td>Update Center</td>
<td>Update Center</td>
</tr>
</tbody>
</table>
WORK PERFORMED:

Drill____ Redrill____ Deepen____
Plug____ Alter casing____
Water flood____ Water disposal____
Abandon____
Other____

STATUS:

Produc.____
Recomp. prod.____ 6-24-67

Water flood____
Water disposal____
Abandoned____
Other____

MAP AND BOOK NC

RECORDS FILED & DATE: Clerk

Summary (dup.)________________________
Log & Core (dup.)________________________
History (dup.) 10/4/67
E-log (2) 3/83-5/82 7/4/67
Radio log________________________
D. Survey________________________
Other________________________

(Check records for signature and correct name of operator or well, S.T.R. and field.)
Location____ Notice states________________________
Elevation____ Notice states________________________
Production Reports________________________

If production reports not received, make notation and inform Sr. Steno. when rec'd.

If stimulation or disposal well: Form 121____ Folder____

RECORDS & REQUIREMENTS CHECKED: Eng.

Surface inspection____
Data needed____ none
Request records____
Correct records____ (Specify)

CARDS NC

#1410633 dated 6-1-67

BOND:

Hold____ Reason________________________
Release____ Date elig. 10-4-67
End premium year____ Release requested____ (Check one)
Bonf superseded____ Well abandoned____

FINAL LETTER____ FILE CLEARED____

Clerk:

F 170____
F 165____
F 165A____
F 150____
F 159____
F 121____
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: General Exploration Company
Field: Long Beach
of California

Well No.: "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: September 11, 1967
Signed: R.S. Ballantyne, Jr.

417 S. Hill St., Los Angeles 628-2156
Title: Vice President
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailer tests, shooting and initial production data.

Date
1967
8/8
8/9
8/10
8/12
8/14
9/5
9/12
9/13
9/14
9/17
9/26

Flowed 50 bbl. net 26.20 oil, 0.2% cut, 40-55#/pkr.
Moved in Blackwell & Sunde production rig. Opened bypass on packer and filled hole with salt water. Pulled tubing and packer (laid down 53 joints of 2-7/8" tubing).
Go-Western jet perforated four 1/2" holes per foot as follows: 4612-4560', 4489-4449' and 4435-4395' .
8/10
Ran 127 joints of 2-7/8" Armco seal lock tubing with pump shoe and gas anchor - 3960' and 3990', respectively. Ran rods and put well on pump. (Production not separated from other wells until 9/5).
8/12
45 bbl. net.
8/14
50 bbl. net.
9/5
36 bbl. net, 24.1°, 0.5%.
9/12
32 bbl. net, 24.0°, 0.5%.
9/13
Moved in Blackwell & Sunde production rig. Ran 100 bbl. salt water into annulus. Installed BOPE. Pulled rods and tubing. Go Western found sticky bottom at 5845' and jet perforated four 1/2" holes per foot from 4805-4760'. Ran 139 joints of Armco 2-7/8" seal lock tubing with pump shoe and gas anchor at 4335' and 4365', respectively. Put well on pump.
9/14
56 bbl. gross, 38 bbl. net, 32.2%.
9/17
53 bbl. gross, 47 bbl. net, 11.3%.
9/26
67 bbl. gross, 66 bbl. net, 1.5%, 24.7°.

CASING RECORD AT COMPLETION OF WORK:
(Depts. from present KB of 60') T.D. 5925'.
13-3/8" C 763'
8-5/8" C 3163'

Sidetracked:
8-5/8" C 4011', top 3194'. Plug 3194' (and open hole up to 3165')
(6-5/8" L 4414' incl. 60' pfs, C 4350, top 3849', Perfs 4011-4034', 4076-4136', Reperf 4354-4405', cemented off behind 4-3/4".)
4-3/4" & 6-5/8" Perf 4146-4231'
<table>
<thead>
<tr>
<th>Date</th>
<th>Note: Depth measurements taken from present K.B. elevation of 60 ft which is 6 ft higher than original datum. Ground elevation is 48 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>Moved in, rigged up drilling equipment, installed base flange and B.O.P.E. (Graham Drilling Company).</td>
</tr>
<tr>
<td>6/6-7</td>
<td>Ran 7-5/8&quot; bit on 3-1/2&quot; drill pipe, located top of 4-3/4&quot; liner at 3804 ft and filled hole with mud. Ran 940' stinger of 2-3/8&quot; tubing on drill pipe and circulated from 4550 ft to solid fill at 4650 ft. Laid 100-sack class G cement plug from 4634 ft. Ran 7-5/8&quot; bit and found cement at 3696 ft (witnessed by D.O.G.). Tested 8-5/8&quot; casing and B.O.P.E. satisfactorily at 1050 psi for 15 minutes.</td>
</tr>
<tr>
<td>6/9-10</td>
<td>Ran two Yann mills and cut section in 8-5/8&quot; casing from 3163 ft to 3168 ft. Ran two Servco mills and cut section to 3194 ft. Opened interval 3163.1-3194 ft to 12-3/4&quot;. Ran 310' stinger of 2-7/8&quot; tubing on drill pipe to 3260 ft and laid 80 sacks of class G cement (including 20% sand) treated with 0.5% CFR-2. Pulled tubing to 2720 ft, backscuttled, squeezed cement with 1100 psi and pressure dropping to 950 psi in 5 minutes. Ran 7-5/8&quot; bit and 8-5/8&quot; casing scraper, found cement at 2992 ft and drilled out to 3165 ft. Drilled 7-5/8&quot; hole to 3296 ft with DynaDrill.</td>
</tr>
<tr>
<td>6/11</td>
<td>Drilled 7-5/8&quot; hole to 4845 ft using a Dyna Drill from 4299-4463 ft. Ran Schlumberger I.S.G. from 4844 ft to 3163 ft.</td>
</tr>
<tr>
<td>6/12-16</td>
<td>Drilled 7-5/8&quot; hole to 5900 ft. Ran Schlumberger I.S.G. from 3900 ft to 4844 ft and C.D.M. from 5900 ft to 4000 ft.</td>
</tr>
<tr>
<td>6/20</td>
<td>Drilled 7-5/8&quot; hole to 5925 ft (T.D.). Ran 2907 ft (including Burma liner hanger), 68 joints, 5-1/2&quot;, 15-3/4, J-55 casing on drill pipe. Cemented at 5924 ft with 579 C.F. of 1-1 class G cement pumix with 2% gel and 0.5% CFR-2 and 12% salt in mix water. Backscuttled small amount of cement from inside top of 5-1/2&quot; liner. Ran 7-5/8&quot; bit and 8-5/8&quot; casing scraper to top of liner at 3017 ft.</td>
</tr>
<tr>
<td>6/21</td>
<td>Pressure testing casing at 1000 psi and lap took fluid. Ran Baker shoe squeeze tool on drill pipe and set at 2925 ft. Squeezed 52 sacks of 75 sacks class G cement mixed into lap at 3017 ft with a final pressure of 2000 psi. Ran 7-5/8&quot; bit and 8-5/8&quot; casing scraper, found open to cement at 2940 ft and drilled out to 3017 ft.</td>
</tr>
<tr>
<td>6/22</td>
<td>Ran 4-3/4&quot; bit and 5-1/2&quot; casing scraper on 2940&quot; of 2-7/8&quot; Armco (seal 10k) tubing below drill pipe. Cleaned out cement to 3037 ft and ran to float collar at 5872 ft. Satisfactorily pressure tested lap with 1000 psi. Ran Johnston tester and set packer at 2992 ft with tail to 3008 ft. Open 63 minutes. Recovered 10' of drilling fluid. Charts showed tester open. W.S.O. on lap approved by D.O.G. Ran Go-Western cement bond log from 5878 ft to 3900 ft and perforated four 1/2&quot; jet holes at 4375 ft. Ran Johnston tester and set packer at 4342 ft with tail to 4358 ft. Open 1 hour. Recovered 45' of drilling fluid. Charts showed tester open. W.S.O. at 4375 psi approved by D.O.G.</td>
</tr>
<tr>
<td>6/23</td>
<td>Ran open end tubing to 5874 ft. Changed over to 68 ft salt water. Laid down drill pipe. Ran Go-Western 4&quot; steel carrier and jet perforated four 1/2&quot; holes per foot as follows: 5776' - 5761', 5754' - 5734' and 5730' - 5712 ft. Ran Guiberson packer on 179 joints of 2-7/8&quot; Armco (seal 10k) tubing and set at 5615 ft. Landed tubing with 16,000 psi on packer.</td>
</tr>
</tbody>
</table>
History of Oil or Gas Well

Operator: General Exploration Company of California, Long Beach

Well No.: "Oil Operators" 4, Sec. 13, T. 4 S, R. 13 W, S.B.B. & M.

Date: July 3, 1967

Signed: R. S. Ballantyne, Jr.

Address: 417 S. Hill St., Los Angeles 628-2156

Title: Vice President

Date: 6/24

Removed B.O.F.E., Installed surface equipment. Swabbed well into production at 10:00 A.M. Flowed 74 bbl. net/20 hrs., 81 B.D. rate, 27.2°, 0.1%, 65 Mcf/D, 20-250#/pkrl.

22/64" bean.

6/25

80 bbl. net, 27.2°, 0.1%, 65 Mcf, 20-1600#/pkrl, 22/64".

6/26

82 bbl. net, 27.2°, 0.1%, 58 Mcf, 20-1500#/pkrl, 22/64".

6/27

80 bbl. net, 27.2°, 0.2%, 63 Mcf, 20-1700#/pkrl, 22/64".

Casing Record at Completion of Work:

(Deeps from present KB of 60') T.D. 5925'.
13-3/8" C 763'
8-5/8" C 3163'
5-1/2" C 2924, top 3017' (splice OK). Perfs. 4575' (W80), 5712-5730', 5734-5754', 5761-5776'. Plug 5878'.

Sidetracked:
8-5/8" C 4011', top 3194'. Plug 3194' (and open hole up to 3165')
(6-5/8" L 4414' incl. 60' pfs, C 4350, top 3849', Perfs 4011-4034', 4076-4136', Reperp 4354-4405', cemented off behind 4-3/4'.)
4-3/4" C 6-5/8" Perf 4146-4231'.

DIVISION OF OIL AND GAS
RECEIVED
JUL 7 1967
INGLEWOOD, CALIFORNIA
Mr. C. G. Willis

417 So. Hill Street

Los Angeles, California 90013

Inglewood, Calif.

June 28, 1967

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

(037-06415)

Your well No. "Oil Operators" 4, 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 June 22, 1967. Mr. R. Johnson, Engineer, designated by the supervisor was present from 8:00 p.m. to 9:00 p.m. as prescribed by law; there were also present R. Willis, Engineer.

Shut-off data. 5½ in. 15.5 lb. casing was -- cemented from 3017' to 5925' ft. on June 20, 1967 in 7-5/8 in. hole with 579 cu. ft. of cement slurry (1:1 pozymix, 2% gel) filling behind casing to 3017' ft. below surface.

Casing record of well: 18-5/8" cem. 50'; 13-3/8" cem. 757'; 8-5/8" cem. 4005', window 3163'-3194' sidetracked @ 3165'; 5-1/2" cem. 3017'-5925', perf. 4358' WSO, TD 1st hole 5379'.

Present depth 5925' ft. cmt. bridge 5925' ft. to 5880' ft. Cleaned out cmt. ---- ft. to ---- ft. for test. A Johnston tester was run into the hole on 3¼ & 2-7/8 in. drill pipe with ---- ft. of water-mud cushion, and packer set at 4342 ft. with tailpiece to 4358 ft. Tester valve, with 3/4 in. bean, was open for 1 hr. and ---- min. During this interval there was a light blow for 2 minutes & no blow thereafter.

Mr. Willis reported that the 5-1/2" casing was jet-perforated with four, 3/8" holes at 4358'.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 45' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE 5-1/2" SHUT-OFF AT 4358' IS APPROVED.

E.J. 72

cc Company

E. R. MURRAY-AARON

State Oil and Gas Supervisor

By Warren C. Bailey, Deputy
Special Report on Operations Witnessed

No. T.167-575

Mr. G. G. Willis  Inglewood, Calif.
417 So. Hill Street
Los Angeles, California 90013
Agent for: GENERAL EXPLORATION CO. OF CALIF.

June 26, 1967

DEAR SIR:

Operations at well No. "Oil Operators" 4, Sec. 13, T. 4 S, R. 13 W, S.B.B & M.
Long Beach Field, in Los Angeles County, were witnessed on June 22, 1967. Mr. S. Cordova, Engineer, representative of the supervisor was present from 11:30 a.m. to 12:15 p.m. There were also present R. Willis, Engineer & C. D. Martin, Drilling Foreman.

Present condition of well: 18-5/8" cement 50'; 13-3/8" cement 757'; 8-5/8" cement 4005'; window 3163'-3194', sidetracked @ 3165'; 5-1/2" cement 3017'-5925'. TD 5925'. TD 1st hole 5379'.

The operations were performed for the purpose of demonstrating the effectiveness of the seal between the 8-5/8" and 5-1/2" casings.

Mr. Willis reported:

1. A window was milled in the 8-5/8" casing from 3163' to 3194' and the hole was opened to 13" in that interval.
2. On June 10, 1967, 80 sacks of cement mixed with 20% sand was pumped into the hole through 3-1/2" drill pipe hanging at 3260'.
3. Cement was drilled out of the hole from 2992' to 3165'.
4. A 7-5/8" hole was redrilled from 3165' to 5925'.
5. On June 20, 1967, 2908' of 5-1/2", 15.5 lb. casing was cemented from 3017' to 5925' with 579 cubic feet of cement slurry (1:1 pozamix, 2% gel), filling behind the 5-1/2" casing to 3017'.
6. Excess cement was backcutted from above the 5-1/2" casing.
7. On June 21, 1967, the annulus between the 8-5/8" and 5-1/2" casings was recemented with 75 sacks of cement of which 50 sacks was squeezed away under a final pressure of 2000 Psl.
8. The hole was cleaned out to the float collar at 5880'.
9. A Johnston tester was run into the hole on 3-1/2" drill pipe, and packer set at 2993', with tailpiece to 3008'.
10. The tester valve with 3/4" bean was open for 1 hr. During this interval there was a light blow for 3 minutes and no blow thereafter.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 10' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED and indicate that no fluid has access to the well from the annulus between the 8-5/8" and 5-1/2" casings.

SC:mm

cc Company

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By: [Signature] Deputy
Mr. C. G. Willis
417 So. Hill Street
Los Angeles, California 90013

Inglewood, Calif.
June 14, 1967

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

Operations at well No. "Oil Operators" 4, Sec. 13, T. 4 S, R. 13 W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on June 8, 1967 by Mr. M. Mefford, Engineer, representative of the supervisor was present from 9:30 p.m. to 10:30 p.m. There were also present C. Martin, Drilling Foreman & L. Saxton, Driller.

Present condition of well: 18-5/8" cem. 50'; 13-3/8" cem. 757'; 8-5/8" cem. 4005', W80; 6-5/8" Id. 3943'-4408', cp 4344', perf. 4005'-4028', 4070'-4130' & 4140'-4225'; 4-3/4" cem. 3804'-5376', perf. 4140'-4225', 4488'-4528', 4565'-4591', 4630'-4670', 4805'-4835', 4850'-4920', 5113'-5158', 5168'-5235' & 5280'-5350'. TD 5379', plugged w/cem. 5376'-5361' & 4634'-3696'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 4634' to 3696' in the process of plugging back to redrill.

Mr. Martin reported:

1. The hole was cleaned out to solid fill at 4650'.
2. On June 8, 1967, 100 sacks of cement was pumped into the hole through 2-3/8" tubing hanging at 4634', filling to 3696'.

THE ENGINEER NOTED THAT THE cement plug at the reported depth of 3696' supported 1/4 of the weight of the drill pipe.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 3696' ARE APPROVED.

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By [Signature] Deputy
Dear Sir:

Your proposal to redrill Well No. "Oil Operators" 4, Section 13, T. 4 S., R. 13 W., S.B., B. & M., Long Beach Field, Los Angeles County, dated June 2, 1967, received June 2, 1967, 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.
Plugged w/comm. 5376'-5361'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5379'
2. Complete casing record, including plugs:
   13-3/8' C 757'
   8-5/8' C 4005' OK
   Pl. 5365'. Sand bridge 4650'.
   (6-5/8' L 4408' incl. 60' pfs. C 4344', top 3843', Pf 4005-4028', 4070-4130'; Repf 4348-4399', cemented off behind 4-3/4'.)
   4-3/4' & 6-5/8' Pf 4140-4225'.
3. Last produced 10/14/64

     (Date) 2 546
     (Oil, B/D) (Water, B/D) (Gas)

PROPOSAL
"The proposed work is as follows:
1. Move in drilling equipment, install B.O.P.E. and fill hole with mud.
2. Lay cement plug from top of sand at approximately 4650' back to 3700' (top 4-3/4' liner at 3804'). Locate top of plug. Pressure test 8-5/8' casing and B.O.P.E. with 1000'.
3. Mill out 30-foot section of 8-5/8' casing near 3100', underream the window to 13', lay cement plug from 100' below section back above top of window and level off plug 5' into section.
4. Sidetrack cased hole through section and drill 7-5/8' hole to approximately 4800'.
5. Run and cement 5-1/2' liner, effect W.S.O. at lap of 8-5/8' casing and above productive horizon.
6. Complete well."

DECISION
THE PROPOSAL IS APPROVED PROVIDED:
1. Fluid consistent with good drilling practice shall be used, and the column of fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. The location and hardness of the cement plug at 3700'.
   b. A test, after cleaning out below the top of the liner to demonstrate that no fluid has access to the well from the annulus between the 8-5/8' and 5-1/2' casings.

E. R. MURRAY-AARON, State Oil and Gas Supervisor
By: Dated
BLANKET BOND
E. "A test of the effectiveness of the 5½' shut-off. WLI:uw Bond No. 1410633, 6/1/67
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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


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, casing, or plugging at Well No. "Oil Operators" 4 (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: 5379'

2. Complete casing record, including plugs:

13-3/8" O 757'
8-5/8" O 4005' OK
4-3/4" O 5376', top 3804', Pfs. 4488-4528', 4565-4591', 4630-4670',
4805-4835', 4850-4920', 5113-5158', 5168-5235' and 5280-5350'.
Pf. 5365'. Sand bridge 4650'.
(6-5/8" L 4400' incl. 60' pfs. C 4344', top 3843', Pf 4005-4028', 4070-4130';
RepP 4348-4399', cemented off behind 4-3/4'.)
4-3/4" & 6-5/8" Pf 4140-4225'.

3. Last produced: 10/14/64

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<th>Date</th>
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<th>Water (b/d)</th>
<th>Gas</th>
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<td>2</td>
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</table>

The proposed work is as follows:

1. Move in drilling equipment, install B.O.P.E. and fill hole with mud.
2. Lay cement plug from top of sand at approximately 4650' back to 3700' (top 4-3/4" liner at 3804'). Locate top of plug. Pressure test 8-5/8" casing and B.O.P.E. with 1000#.
3. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to 13", lay cement plug from 100' below section back above top of window and level off plug 5' into section.
4. Sidetrack cased hole through section and drill 7-5/8" hole to approximately 4800'.
5. Run and cement 5-1/2" liner, effect W.S.O. at lap of 8-5/8" casing and above productive horizon.
6. Complete well.

417 S. Hill St., Los Angeles 90013

GENERAL EXPLORATION COMPANY OF CALIFORNIA

(Address)   (Name of Operator)

628-2156

By R. S. Ballantyne, Vice President

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

Tie 46-82 W 2 M 42 SPD
REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Lomax Bench
Former Owner: Union Oil Co. of California
Date: January 17, 1961

Description of Property: Sec. 13, T. 4 S., R. 13 W., S. 2, N. & S.

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: 730 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 13, 1961)

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

Remarks:

ob
CC: Br. D. H. Humor

Production Dept.
Conservation Committee

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

INITIALS

DATE

LEGEND

PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells
Noted—If Transfer Does Not Change Overall Status Enter "No Change"
Form 10

Date Received 11-6-59

CLERK

Elec. Log Radio Log

Direct. Surv. Other Data

Location

Elevation

Prod. Repts.

ENGINER

ABANDONED ON

BOND Release Date Elig. 150b

End Prem. year Release Requested

Aband. Redrill

HOLD BOND Reason

Data Needed

Final Letter Eng.

RECEIPT FOR

New Well Records

Subsequent Work

Well Summary (100)

Drillers Log (101)

Core Record (101)

History (103)

Elec. Log

Other
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<td>CASING RECORD AT START OF WORK:</td>
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<td>13-3/8&quot; C 757' ; 3-5/8&quot; C 4,005' OK</td>
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<td>572'</td>
<td>6-1/4&quot; C</td>
<td>5376'</td>
<td>4,438'-4,538'</td>
<td>CASING RECORD AT COMPLETION OF WORK:</td>
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<td>4,565'-4,591'</td>
<td>4,630'-4,670'</td>
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<td>4,565'-4,591' ; 4,630'-4,670' ; 4,805'-4,835'</td>
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<tr>
<td>4,850'-4,920'</td>
<td>5,13-5,158'</td>
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<td>4,850'-4,920' ; 5,13-5,158' ; 5,168-5,235'</td>
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<td>5,280-5,350'</td>
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<td></td>
<td>5,280-5,350'</td>
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</tr>
<tr>
<td>(565'-6-5/8&quot; L</td>
<td>4,408' incl.</td>
<td>60' p.f.s.</td>
<td>Contractor moved in and rigged up. Filled rods and pump. Filled tubing. Ran in with 7-1/2&quot; impression block to top of 4-3/4&quot; liner at 3607'. Han 3-5/8&quot; impression block to 4250'. Installed blow-out preventer.</td>
<td></td>
</tr>
<tr>
<td>434'-4,399'</td>
<td>4,005'-4,023'; 4,070'-4,130'</td>
<td>4,343'-4,399', cemented off behind 4-3/4&quot;</td>
<td>perforated 4-3/4&quot; and 6-5/8&quot; liners from 4225-4140' with two 1/2&quot; jet holes per foot and two 1/2&quot; bullets per foot. Fluid level (mud) rose from 3600' at start to 1400' at end. Light blow while shooting. Ran in with 2-7/8&quot; Davins sand pump and bailed at 5331'. Started running tubing.</td>
<td></td>
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<tr>
<td>2</td>
<td>8-25</td>
<td>5379'</td>
<td>Plug 5361</td>
<td>Han in and landed tubing with gas anchor at 4200'. Ran rods and pump. Put well on production. Contractor moved out.</td>
</tr>
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## Repair Report

**Oil Operators #4**

**Field:** Long Beach

**County:** Los Angeles

**SEC.:** 13  
**T.:** 4-S  
**R.:** 13-W S.B.  
**B. & M.:** (PERIOD ENDING)

**WELL NO.:**

**Casing Record:**
- 4565-4591 4630-4670 4805-4835
- 4850-4920 5113-5158  5168-5235
- 5280-5350

**History of Oil or Gas Well:**

**Repair Data:**
- September 24, 1959

**TOOLS:** Port. Hoist - Contract

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

### Production Data

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<td>100.0</td>
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<td>24</td>
<td>224</td>
<td>22</td>
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<td>270</td>
<td>27</td>
<td>90.0</td>
<td>23.2</td>
<td>T.</td>
<td></td>
</tr>
</tbody>
</table>

### Remarks

- Well down due to bad leak in the oil lines.
- Pulled rods.

**Division of Oil and Gas**

**Received**

**Inglewood, California**

**Nov 6 1959**
Mr. C. F. Bowden
P. O. Box 7600
Los Angeles 54, California
Agent for UNION OIL COMPANY OF CALIFORNIA

Inglewood 3, Calif.
September 1, 1959

DEAR SIR:

Your proposal to alter casing Well No. "Oil Operators" 4,
Section 13, T. 4 S., R. 13 W., S.B. & M., Long Beach Field, Los Angeles County,
dated August 25, 1959, received August 28, 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.
18-5/8" cem. 50'; 8-5/8" cem. 4005', W.S.O.; 6-5/8" perf. 4348'-4408', plugged with cement 5376'-5361'.
THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5379'
   Plug 5361'
2. Complete casing record.
   13-3/8" C 757'
   8-5/8" C 4005' OK
   565' 6-5/8" L 4408' inc. 60' perf.; CP 4348'; Pf. 4005-4028, 4070-4130,
   4348-4399'-----Cemented off behind 4-3/4".
   1572' 4-3/4" C 5376', plug 5361'; PT 4488-4525, 4565-4591, 4630-4670,
   4805-4835, 4830-4920, 5113-5235, 5280-5350'.
   2 (Net Oil) 21.1 (Gravity) 75.0% (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing. Install blow-out preventer equipment.
2. Check condition of casing.
3. Bullet and jet perforate 4-3/4" and 6-5/8" casings with four holes per foot from 4140-4225'.
4. Run tubing, pump and rods.
5. Test well on production."

DECISION
THE PROPOSAL IS APPROVED.

RC: yk
cc- Mr. Vaughn S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor

By _______________________, 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. August 25, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. Oil Operators #4, 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. 5379' Plug 5361'

2. Complete casing record.
   13-3/8" C 757'
   8-5/8" C 4005' OK
   565' 6-5/8" L 4408' inc. 60' perf.; CP 4344'; Pf. 4005-4028, 4070-4130, 4348-4399' ---- Cemented off behind 4-3/4".
   1572' 4-3/4" C 5376', plug 5361'; Pf 4488-4525, 4565-4591, 4630-4670, 4805-4835, 4830-4920, 5113-5235, 5280-5350'.

3. Last produced. January, 1958 2 21.1 75.0%

The proposed work is as follows:

1. Pull rods and tubing. Install blow-out preventer equipment.
2. Check condition of casing.
3. Bullet and jet perforate 4-3/4" and 6-5/8" casings with four holes per foot from 4140-4225'.
4. Run tubing, pump and rods.
5. Test well on production.

Union Oil Co. of Calif.

By

Address One Copy of Notice to Division of Oil and Gas in District Where Well Is Located

Name of Operator

Vaughn S. Moyer, Division Engr.
COMPLETED PRODUCING ON 8-27-59

ABANDONED ON
<table>
<thead>
<tr>
<th><strong>STENOGRAPHER</strong></th>
<th></th>
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<tbody>
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<tr>
<td>Elec. Log</td>
<td>Radio Log</td>
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<td>Direct. Surv.</td>
<td>Other Data</td>
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<tr>
<td>Location</td>
<td></td>
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<tr>
<td>Elevation</td>
<td>Steno. 80</td>
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<table>
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<th><strong>ENGINEER</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BOND Blanket</td>
<td>Release Date Elig. 150b</td>
</tr>
<tr>
<td>HOLD BOND</td>
<td>Reason</td>
</tr>
</tbody>
</table>

Data Needed 1

Final Letter Eng. 5/7/49

Note: This work done without filinquirite.
STENOGRAFHER

Date Received 12-2-48  Form 100  101  103

Elec. Log.  Radio Log

Direct. Surv.  Other Data

Location

Elevation  Steno. [signature]

ENGINEER

BOND Blanket Release  Date Elig.  150b


HOLD BOND  Reason

Data Needed [signature]

Final Letter  Eng. [signature]  12-6-48
**REPAIR REPORT**

**WELL NO.** Oil Operators #4  
**FIELD** Long Beach  
**COUNTY** Los Angeles  
**SEC.** 13  
**T.** 4-S  
**R.** 13-W  
**S.B.** S.B.  

**TOOLS** Portable Hoist - Contract  
**RECEIVED** Oct. 30, 1948  
**PERIOD ENDING** DECEMBER 31, 1948  

<table>
<thead>
<tr>
<th>NO.</th>
<th>TOURS</th>
<th>DATE</th>
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<th>EFFECTIVE DEPTH</th>
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<td>10-18</td>
<td>5379</td>
<td>Plug 5361</td>
<td></td>
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<td>1</td>
<td>10-19</td>
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<td>10-21</td>
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<td>10-28</td>
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<td></td>
<td>10-29</td>
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</tr>
<tr>
<td></td>
<td>10-30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOS ANGELES, CALIFORNIA**

**REMARKS**

Proposed Work: Perforate interval from 4605' to 4835' with two 1/2 holes per foot.

Production: 7 B/D net - 18.7% - 21.5%

California Production Service - Contractors, moved in and pulled rods, pump and tubing. Ran 2-7/8" Cavins sand pump bailer to 5350'.

Cleaned out with ditto bailer to 5360'. Ran 2-3/4" impression block to 5330'. Indicated rough perforation holes. Ran 2-1/2" impression block to 5360'. 0.5% Ran in and shot 4-3/4" casing at intervals from 4630-4670', 4805-4835' with 140 1/2" McCullough bullets, using 3-1/2" o.d. x 10' (20-shot) gun. Checked top of 4-3/4" casing at 3802'. Fluid level at start 3590'. Fluid level at finish 3520'. Evidence of fine sand and mud on guns and sand line during shooting from 4630-4670'. Light gas blow during entire period of shooting.

Ran tubing to 4600'. Put well on production.

### PRODUCTION DATA

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<tr>
<th>Hours</th>
<th>Gases</th>
<th>Net Oil</th>
<th>Cut</th>
<th>Rate</th>
<th>Remarks</th>
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<td>26</td>
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</tr>
<tr>
<td>24</td>
<td>6</td>
<td>6</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**District Engineer**

John R. Greer
Proposed Work: Perforate interval from 4565' to 4591' with two 1/2" holes per foot. Test on the pump. Production 6 B/D net - 11.4% cut

Pulled rods, pump and tubing. Made up 2-5/8" Carina sand pump bailer.

Checked bottom with bailer at 5360'. Gun perforated 4-3/4" casing from 4488-4526', 4565-4591' with 132' McCullough 1/2" bullets using 3-1/2" o.d. x 20 shot gun (120 grain loads). Had strong gas blow after shooting first gun. Flow continued throughout shooting. Unable to check fluid level with gun. Gun contained some sand. Casing pressure 225' while shooting. Used 8.5' above concrete pad as zero measurement.

Checked bottom at 5360'. Unable to determine fluid level. Ran tubing, pump and rods. Contractors moved out.

Installed gas trap

PRODUCTION DATA

<table>
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<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
<th>Cut</th>
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</thead>
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<td>16</td>
<td>12</td>
<td>11</td>
<td>21.5</td>
<td>Pump change.</td>
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<td></td>
<td></td>
<td>Bailed 5315-5360'</td>
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<td></td>
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<td>24</td>
<td>9</td>
<td>5</td>
<td>40.0</td>
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</table>

RECEIVED
FEB 26 1949
LOS ANGELES, CALIFORNIA
Mr. W. S. Eggleston

Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 4,

Section 13, T. 4 S., R. 13 W., S.B., B. & M., Long Beach Field, Los Angeles County, dated Sept. 30, 1948, received Oct. 1, 1948, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:
"The present condition of the well is as follows:
1. Complete casing record.
   Total Depth 5379' - Plug 5365'
   18-5/8" C 50'
   13-3/8" C 757'
   8-5/8" C 4005' O.K.
   565' 6-5/8" L 4408' inc. 60' perf., O.F. 4344' - drilled through bottom.
   (Perf. & cmt. 4005-4028', 4070-4130')
   1572' 4-3/4" C 5376', perf. 4850-4920', 5113-5158', 5168-5235', 5282-5350'

2. Last produced Aug. 1948
   (Date) 8 E/D Ave.
   (Net Oil) 21.5°
   (Gravity) 15.5°

PROPOSAL:
"The proposed work is as follows:
1. Add perforations with two 1/2 bullet perforations per foot in the intervals from 4630-4672', 4805-4835'.
2. Test on production."

DECISION:
THE PROPOSAL IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser
Deputy

Records Filed
100°
101°
103° 12-2-48
E. Log.

Blanket bond.
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Whittier, Calif. Sept. 30, 1948

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 #4


The present condition of the well is as follows:

1. Complete casing record.
   Total Depth 5379' - Plug 5365'
   18-5/8" C 50'
   13-3/8" C 757'
   8-5/8" C 4005' O.K.
   565' 6-5/8" L 4408' inc. 60' perf., C.P. 4344' - drilled through bottom.
   (perf. & cmtd. 4005-4028', 4070-4130')
   1572' 4-3/4" C 5376', perf. 4850-4920', 5113-5158', 5168-5235', 5282-5350'

2. Last produced Aug. 1948 8 B/D Ave. 21.5° 15.5°
   (Date) (Net Oil) (Gravity) (Cst)

The proposed work is as follows:

1. Add perforations with two 1/2" bullet perforations per foot in the intervals from 4630-4672', 4805-4835'.

2. Test on production.

UNION OIL COMPANY OF CALIF.

(Name of Operator)

By John H. Fraser, Division Engr.

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
STENOGRAPHER

Forms ed

Date Rec'd. 11-14-45

Electric Log

Location

Elevation

ENGINEER

Form Needed

Map Correction

Form 150b (Date of Release)

At Request of Operator Blanket
Because Abandoned
Because Request by Oper.

Remarks Sub work report of albion casing
**Division of Oil and Gas**

**History of Oil or Gas Well**

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

**Well No.:** Oil Operators 4  
**Sec.:** 13  
**T.:** 4-3  
**R.:** 13-W  
**S.B.:** B & M

**Signed:** Henry C. Wintz

**Date:** November 6, 1945

**Title:** Division Engineer  
**(President, Secretary or Agent)**

---

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed; amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs.

If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>3-16</td>
<td>5379</td>
<td>Plug 5361</td>
<td>Pulled rods and tubing. Rigged up to add perforations.</td>
</tr>
<tr>
<td>3-17</td>
<td>C.O.</td>
<td>5361</td>
<td>Cleaned out sand from 5355 to 5361'. Fluid level 4410'.</td>
</tr>
<tr>
<td>3-18</td>
<td></td>
<td></td>
<td>Perforated 4-3/4&quot; casing from 4250 to 4920' with 136 Lane-Wells 1/2&quot; bullets.</td>
</tr>
<tr>
<td>3-22</td>
<td></td>
<td></td>
<td>Ran rods and 2-1/2&quot; upset tubing to 5029' over-all. Put well to pumping.</td>
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</tbody>
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**Production Data:**

<table>
<thead>
<tr>
<th>Hours</th>
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<th>Net</th>
<th>Grav.</th>
<th>Out</th>
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<td>8-31</td>
<td>24</td>
<td>17</td>
<td>15</td>
<td>26.2</td>
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</table>
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 4S., R. 13W., S.B. & M., as herewith enumerated by well numbers.

Logs 

History

Core record

Subsequent work - "All Operators," 4

R. D. Bush, State Oil and Gas Supervisor

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

Report on Proposed Operations

No. P.L-41022

August 14, 1945

Los Angeles 14, Calif.

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

Los Angeles 14, Calif.

DEAR SIR:

Your proposal to alter casing Well No. "Oil Operators" 4 
Section 13, T.4 S., R.13 W., S.B., B. & M., Long Beach Field, Los Angeles County, 
dated Aug. 6, 1945, received Aug. 10, 1945, 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 6-5/8" casing is perforated 4341'-4408', 4130'-4070', and 4025'-4005'
(sealed off by 4-3/4" casing).

THE NOTICE STATES:

"The present condition of the well is as follows:
1. Complete casing record.
   Total Depth 5379' Flug 5361'
   13-3/8' Cmt. 757'
   8-5/8' Cmt. 4005' OK
   1572' 4-3/4' Cmt. 5376' Perf. 5113-5158', 5168-5235', 5280-5350'.
   (565' 6-5/8' L 4408' inc. 60' perf. CF 4341' - Drilled through)

Production has not been satisfactory since reperforating in August, 1944.

2. Last produced June, 1945 172 (Date) 172 (Net Oil) 26.2° (Gravity) 26.2° (Cut)"

PROPOSAL:

"The proposed work is as follows:
1. Leave present perforations (RS-T) open and add perforations 4850'-4920'.
2. Test on production."

DECISION:

THE PROPOSAL IS APPROVED.

E RMA: OH

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

R. D. BUSH
State Oil and Gas Supervisor
By E. H. Messer

Records Filed
100
-1
23
11-14-45
E. Log.

Blanket bond No. 99071
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given fifteen days before work begins when possible

Santa Fe Springs, Calif. August 6, 1945

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 #4

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

Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total Depth 5379' Plug 5361'
   13-3/8" Cmtd. 757'
   8-5/8" Cmtd. 4005' OK
   1572' 4-3/4" Cmtd. 5376' Perf. 5113-5185', 5168-5235', 5280-5350'.
   (565' 6-5/8" L 4408' inc. 60' perf. CP A344' - Drilled through)

   Production has not been satisfactory since reperforating in August, 1944.

2. Last produced June, 1945
   (Date) 172
   (Net Oil) 26.2
   (Gravity) 26.2
   (Cst) 29 days

The proposed work is as follows:

1. Leave present perforations (RS-T) open and add perforations 4850-4920'.
2. Test on production.

Map Book Cards Bond

---

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

Co: F.A.W.
STENOGRAPHER

Forms Filed 102

Date Rec'd. 10-4-44

Electric Log

Location

Elevation

ENGINEER

Form Needed none

Map Correction none

Form 150b (Date of Release)

At Request of Operator

Because Abandoned

Because Request by Oper.

Remarks Rec. for Subsequent Work Report
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR: Union Oil Company of California
FIELD: Long Beach

Well No. Oil Operators #4, 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 July 18, 1941, was filed.

Date: September 27, 1944

Title: Division Engineer

( President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which after 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>Effective Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-7</td>
<td>5379</td>
</tr>
<tr>
<td>8-12</td>
<td>C.O. 5360</td>
</tr>
<tr>
<td>8-14</td>
<td>5379</td>
</tr>
<tr>
<td>8-22</td>
<td>C.O. 5361</td>
</tr>
<tr>
<td>8-25</td>
<td>5379</td>
</tr>
</tbody>
</table>

Moved in and rigged up to reperforate.

Cleaned out sand from 5325 to 5360' with 2-7/8" bailer. Fluid level 3561'.

Perforated and reperforated 4-3/4" casing with 1/2" Lane-Wells gun holes as follows: 5350-5282' with 34 holes, 5235-5168' with 120 holes, and 5158-5113' with 21 holes.

Checked top of oil at 3520'; top of water at 5325' and hole open to 5361'.

Ran rods and 2-1/2" plain and upset tubing to 5329' overall. Put well to pumping.

PRODUCTION DATA

<table>
<thead>
<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>Cut</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-27</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>26.2</td>
<td>4.4</td>
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<td>1</td>
<td>26.2</td>
<td>4.4</td>
</tr>
<tr>
<td>8-31</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>26.2</td>
<td>4.4</td>
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</table>

Changed pump

<table>
<thead>
<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>Cut</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-4</td>
<td>24</td>
<td>57</td>
<td>54</td>
<td>26.2</td>
<td>4.4</td>
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<td>9-9</td>
<td>8</td>
<td>12</td>
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<td>9-13</td>
<td>24</td>
<td>15</td>
<td>9</td>
<td>26.2</td>
<td>20.0</td>
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<td>9-15</td>
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<td>9</td>
<td>26.2</td>
<td>38.0</td>
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<tr>
<td>9-17</td>
<td>24</td>
<td>14</td>
<td>9</td>
<td>26.2</td>
<td>38.0</td>
</tr>
</tbody>
</table>

MAP | MAP BOOK | CARDS | BOND | FORMS
| 114 | 121

13
Mr. W. S. Eggleston

Los Angeles 14, Calif.

Dear Mr. Eggleston:

Your proposal to plug & alter casing Well No. "Oil Operators" 4, Section 13, T.4 S., R13 W., S.E. B. & M., Long Beach Field, Los Angeles County, dated July 15, 1944, has been examined in conjunction with records filed in this office. Present conditions as shown by the records and the proposal are as follows:

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

THE NOTICE STATES:
"The present condition of the well is as follows:
1. Complete casing record.
   Total depth 5379' - plug 5361'.
   13-3/8" cmtd. 757'.
   8-5/8" cmtd. 4005' O.K.
   (565' 6-5/8" landed 4408', inc. 60' perf. C.P. 4344'. Perf. 4005-4058, 4070-4130' - deepened through)
   1572' 4-3/4" cmtd. 5376' - perf. and re-perf. 5113-5158', 5165-5175', 5250-5350'.
2. July, 1944 produced 87 (Date) 26.2 (Net Oil) 40.0 - 29 days. (Gravity) (Out)"

PROPOSAL:
"The proposed work is as follows:
1. Add perforations 5175-5235' and re-perforate present perforations.
2. If wet or no fluid, plug to 5090' and test by Division of Oil and Gas.
3. Perforate 4850-4920' and test. If unsuccessful, test higher.
4. If any test is unsuccessful, plug to 20' above perforations and test by Division of Oil and Gas."

DECISION:
THE PROPOSAL IS APPROVED.

ERMA:OH

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

R. D. BUSH
State Oil and Gas Supervisor

By__________________________________________

Deputy

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

Santa Fe Springs Calif. July 15 1944

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, plugging or altering casing at well No. Oil Operators #4

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 5379' - plug 5361'
   13-3/8" cmted. 757'
   8-5/8" cmted. 4005' C.E.
   (565' 6-5/8" landed 4403', inc. 60' perf. C.P. 4344'. Perf. 4005-4028, 4070-4230' = deepened through)
   1572' 4-3/4" cmted. 5376' = perf. and re-perf. 5113-5158', 5168-5175', 5280-5350'

JULY, 1944
2. Produced 87 26.2 40.0 - 29 days
   (Date) (Net Oil) (Gravity) (Cut)

The proposed work is as follows:

1. Add perforations 5175-5235' and re-perforate present perforations.
2. If wet or no fluid, plug to 5090' and test by Division of Oil and Gas.
3. Perforate 4850-4920' and test. If unsuccessful, test higher.
4. If any test is unsuccessful, plug to 20' above perforations and test by Division of Oil and Gas.

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
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No.: Oil Operators No. 4, 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 3-21-38.

Date: July 18, 1944
Title: DIVISION ENGINEER

(President, Secretary or Agent)

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-19</td>
<td>4408</td>
<td>Flg. 4305</td>
<td>Pulled rods and tubing.</td>
</tr>
<tr>
<td>1-21</td>
<td>4407</td>
<td></td>
<td>Drilled out cement plug.</td>
</tr>
<tr>
<td>1-22</td>
<td>4408</td>
<td></td>
<td>Drilled out lead seal and bottom of liner.</td>
</tr>
<tr>
<td>1-23</td>
<td>4500</td>
<td></td>
<td>Drilled with 5-5/8” bits.</td>
</tr>
<tr>
<td>1-24</td>
<td>4555</td>
<td></td>
<td>Cored with 5-5/8” wire line core barrel.</td>
</tr>
<tr>
<td>1-28</td>
<td>5112</td>
<td></td>
<td>Drilled with 5-5/8” bits.</td>
</tr>
<tr>
<td>4-2</td>
<td>5379</td>
<td></td>
<td>Cored with 5-5/8” core barrel. Ran Schlumberger electric log and inclinometer from 4408’ to 5375’. Co-ordinates at 5370’, 155’S, 195’E. Under-reamed with Grant hydraulic under-reamer from 4112’ to 5377’.</td>
</tr>
<tr>
<td>4-9</td>
<td>5379</td>
<td></td>
<td>Ran in 1572’ 4-3/4” x 16#, Grade “C” seamless second-hand liner, including 8-5/8” x 4-3/4” Burns liner hanger and adapter. Landed at 5376’ with Baker float shoe on bottom and Baker float collar at 5361’, Cemented with 200 packs by displacement method.</td>
</tr>
<tr>
<td>4-10</td>
<td>5379</td>
<td></td>
<td>Found top of cement at 3680’ and drilled out to 3804’ with 7-5/8” bit.</td>
</tr>
<tr>
<td>4-11</td>
<td>5379</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CASING RECORD AT START OF WORK
13-3/8” C. 757’
8-5/8” C. 4005’, 0.K.
565’ 6-5/8L. 4408’, inc. 60’ perf.
CP. 4344’

CASING RECORD AT END OF WORK
13-3/8C757’
8-5/804005’, 0.K.
1572’ 4-3/4 C. 5376’
Perf. and Reperf: 5113-58’; 5168-75’;
5280-5350’
(565’ 6-5/8 L. 4408’, inc. 60’ perf. behind 4-3/4”. CP 4344’, Reperf: 4348-4399’; Perf:
4005-4028’, 4070-4130’).
**DIVISION OF OIL AND GAS**

**Subsequent Work Report**

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

**Well No.:** Oil Operators No. 4, Sec. 13, T. 4-6, 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 3-21-38, was filed.

**Signed:**

**Date:** July 18, 1941  
**Title:** DIVISION ENGINEER  
(President, Secretary or Agent)

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-13</td>
<td>5379</td>
<td>Plg. 5361</td>
<td>Drilled out cement with 3-7/8&quot; bit and 4-3/4&quot; casing scraper from 3804' to 3814' and from 5305' to 5361'.</td>
</tr>
<tr>
<td>4-14</td>
<td>5379</td>
<td></td>
<td>Bailed mud with 6-5/8&quot; bailer to 3093' and checked bottom with bailer. After 8 hours no rise in fluid as witnessed by Corwin of Division of Oil &amp; Gas, and casing splice approved.</td>
</tr>
<tr>
<td>4-15</td>
<td></td>
<td></td>
<td>Perforated 4-3/4&quot; casing with Lane-Wells gun, shooting .45 caliber bullets from 5113-5137' with 48 holes. 5280-5322' with 85 holes.</td>
</tr>
<tr>
<td>4-16</td>
<td></td>
<td></td>
<td>Landed 2½ upset tubing at 5167'.</td>
</tr>
<tr>
<td>4-18</td>
<td></td>
<td></td>
<td>Swabbed fluid, ran in pump and rods, installed pumping unit, and put on production.</td>
</tr>
</tbody>
</table>

**PRODUCTION DATA**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Gross</th>
<th>Net</th>
<th>A.P.I. Gravity</th>
<th>Cut</th>
<th>Hours Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-18</td>
<td>72</td>
<td>54</td>
<td>-</td>
<td>24.7</td>
<td>19</td>
</tr>
<tr>
<td>4-19</td>
<td>36</td>
<td>34</td>
<td>23.2</td>
<td>6.1</td>
<td>24</td>
</tr>
<tr>
<td>4-20</td>
<td>38</td>
<td>36</td>
<td>23.2</td>
<td>6.4</td>
<td>24</td>
</tr>
<tr>
<td>4-21</td>
<td>39</td>
<td>37</td>
<td>23.2</td>
<td>6.4</td>
<td>24</td>
</tr>
<tr>
<td>4-22</td>
<td>36</td>
<td>34</td>
<td>23.2</td>
<td>6.4</td>
<td>24</td>
</tr>
<tr>
<td>4-23</td>
<td>31</td>
<td>29</td>
<td>23.2</td>
<td>6.4</td>
<td>24</td>
</tr>
<tr>
<td>4-24</td>
<td>33</td>
<td>31</td>
<td>23.2</td>
<td>6.0</td>
<td>24</td>
</tr>
<tr>
<td>4-25</td>
<td>31</td>
<td>29</td>
<td>23.2</td>
<td>6.0</td>
<td>24</td>
</tr>
<tr>
<td>4-26</td>
<td>32</td>
<td>30</td>
<td>23.2</td>
<td>6.0</td>
<td>24</td>
</tr>
<tr>
<td>4-27</td>
<td>32</td>
<td>30</td>
<td>23.2</td>
<td>6.0</td>
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<td>4-28</td>
<td>32</td>
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<td>6.0</td>
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<td>4-29</td>
<td>20</td>
<td>19</td>
<td>23.2</td>
<td>6.0</td>
<td>10</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 #4, Sec. 13, T. 4S, R. 12W, S.B. B. & M.

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**Signed:**

**Date:** July 18, 1941  
**Title:** DIVISION ENGINEER  
*President, Secretary or Agent*

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<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1</td>
<td>5379</td>
<td>Plg. 5361</td>
<td>Pulled rods and tubing.</td>
</tr>
<tr>
<td>5-2</td>
<td></td>
<td></td>
<td>Bailed and swabbed perforations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reperforated 4-3/4&quot; liner with Lane-Wells gun, shooting .45 caliber bullets from 5114' to 5140', with 26 holes. 5280' to 5325', with 45 holes. Ran 2 1/2&quot; tubing to 5290'. Ran in pump and rods. Connected pumping unit. Put on production.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>37</td>
<td>18</td>
<td>23.2</td>
<td>2.5</td>
<td>24</td>
</tr>
</tbody>
</table>
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Signed: [Signature]

Date: July 18, 1941

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 rest for water, state kind of material used, position and results of pumping or bailing.

Date | Depth | Eff. Depth | Remarks
--- | --- | --- | ---
1941 | 6-2 | 5379 Plg. 5361 | Pulled rods and tubing.
| 6-4 | 5140' | Ran Lane-Wells gun perforator, shooting .45 caliber bullets. Reperforated: 5113-5140', 28 holes; Perforated: 5140-5148', 38 holes; Reperforated: 5168-5175', 15 holes; Reperforated: 5280-5325', 46 holes; Perforated: 5325-5350', 50 holes. Fluid level at 1830' by bailer after perforating.
| 6-5 | 5100' | Ran 2 1/4" tubing to 5100'.
| 6-6 | 5100' | Swabbing through tubing. Well flows by heads part time.

**PRODUCTION DATA**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>51</td>
<td>23.2</td>
<td>2.4</td>
<td>19 (Flowing and swabbing)</td>
</tr>
<tr>
<td>99</td>
<td>97</td>
<td>26.0</td>
<td>2.4</td>
<td>17 (Ran in rods and put on pump)</td>
</tr>
<tr>
<td>103</td>
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<td>26.0</td>
<td>2.4</td>
<td>24</td>
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<tr>
<td>7</td>
<td>7</td>
<td>26.4</td>
<td>1.8</td>
<td>3 (Pull rods)</td>
</tr>
</tbody>
</table>

Perforations washed with Yowell Type "S" washer.

Ran 2 1/2" upset tubing to 5384', ran in rods and pump, and put on production.
SUBMIT IN DUPLICATE  
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

Subsequent Work Report  

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

Well No.: Oil Operators #4, 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 3-21-38, was filed.  

**Signed**:  
(Handwritten signature)  

**Date**: July 18, 1941  
**Title**: DIVISION ENGINEER  
(Handwritten text)  

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>1941</td>
<td>5379</td>
<td>Plg. 5361</td>
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</tbody>
</table>

**Production Data**

<table>
<thead>
<tr>
<th></th>
<th>Bbls.</th>
<th>Bbls.</th>
<th>A.P.I. Gravity</th>
<th>Cut</th>
<th>Hours Pumped</th>
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<tr>
<td>6-28</td>
<td>96</td>
<td>65</td>
<td>26.4</td>
<td>32.0</td>
<td>10</td>
</tr>
<tr>
<td>6-29</td>
<td>72</td>
<td>57</td>
<td>26.4</td>
<td>20.3</td>
<td>24</td>
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<tr>
<td>6-30</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>0 (Pump sanded)</td>
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<tr>
<td>7-1</td>
<td>110</td>
<td>95</td>
<td>26.4</td>
<td>14.0</td>
<td>13 (Ran tubing, rods &amp; pump)</td>
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<tr>
<td>7-2</td>
<td>81</td>
<td>62</td>
<td>26.4</td>
<td>14.0</td>
<td>24</td>
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<td>7-3</td>
<td>53</td>
<td>47</td>
<td>26.4</td>
<td>10.5</td>
<td>19 (Sanded)</td>
</tr>
<tr>
<td>7-4</td>
<td>54</td>
<td>51</td>
<td>26.4</td>
<td>5.9</td>
<td>24 (Pulled rods &amp; tubing)</td>
</tr>
<tr>
<td>7-5</td>
<td>54</td>
<td>51</td>
<td>26.4</td>
<td>5.4</td>
<td>24</td>
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<td>7-6</td>
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<td>3.8</td>
<td>24</td>
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<td>7-7</td>
<td>50</td>
<td>48</td>
<td>26.4</td>
<td>3.0</td>
<td>24</td>
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<td>7-10</td>
<td>49</td>
<td>48</td>
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<td>3.3</td>
<td>24</td>
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<td>7-11</td>
<td>30</td>
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<td>3.3</td>
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<td>7-12</td>
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<td>29</td>
<td>26.4</td>
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<td>7-13</td>
<td>85</td>
<td>81</td>
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<td>4.8</td>
<td>24</td>
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<td>7-14</td>
<td>64</td>
<td>61</td>
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<td>4.8</td>
<td>24</td>
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<td>7-15</td>
<td>54</td>
<td>52</td>
<td>26.4</td>
<td>4.2</td>
<td>24</td>
</tr>
<tr>
<td>7-16</td>
<td>52</td>
<td>50</td>
<td>26.4</td>
<td>3.0</td>
<td>24</td>
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<td>7-17</td>
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<td>26.4</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>7-18</td>
<td></td>
<td></td>
<td>26.4</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

**Measurement Datum**

All measurements from top of rotary table which is 18" above top of derrick floor, or 31" above top of cement foundation piers.
## Log and Core Record of Oil or Gas Well

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

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

### Formations Penetrated by Well

<table>
<thead>
<tr>
<th>Depth to Bottom of Formation</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4408</td>
<td>4545</td>
<td>137</td>
<td>Drilled</td>
<td>Sand and shale.</td>
</tr>
<tr>
<td>4545</td>
<td>4555</td>
<td>10</td>
<td>Cored</td>
<td>Sand. (See Core Record)</td>
</tr>
<tr>
<td>4555</td>
<td>5112</td>
<td>557</td>
<td>Drilled</td>
<td>Sand and shale.</td>
</tr>
<tr>
<td>5112</td>
<td>5379</td>
<td>267</td>
<td>Cored</td>
<td>Sand and shale. (See Core Record)</td>
</tr>
</tbody>
</table>

**Total Depth:** 5379
<table>
<thead>
<tr>
<th>Date</th>
<th>Core No.</th>
<th>Size &amp; Type</th>
<th>From</th>
<th>To</th>
<th>Total</th>
<th>Shale</th>
<th>Oil Sand</th>
<th>Grav Sand</th>
<th>Shell</th>
<th>Description of Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-23-41</td>
<td>5-5/8&quot;</td>
<td>4500 Barrel</td>
<td>4510</td>
<td>4520</td>
<td>2.6</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
<td></td>
<td>Mixed burnt shale and oil sand.</td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td>4510</td>
<td>4520</td>
<td>2.6</td>
<td>0.5</td>
<td></td>
<td>0.1</td>
<td>2.0</td>
<td></td>
<td>Hard fine to medium oil sand. Carbon particles. Good odor and faint cut. Hard burnt shale Mixed mud and fine oil sand. Slight odor and faint amber cut.</td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td>4520</td>
<td>4530</td>
<td>1.3</td>
<td>0.9</td>
<td></td>
<td>0.4</td>
<td></td>
<td></td>
<td>Hard sandstone shell (probably at 4537' by driller) Loose mixed oil sand and mud. Fair odor and cut.</td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td>4530</td>
<td>4535</td>
<td>0.7</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pieces of hard calcareous fine to medium grayish brown oil sand (carbonaceous). Fair odor and light amber cut. One piece has irregular vertical shale sand contact (possibly fault gouge).</td>
</tr>
<tr>
<td>3-23-41</td>
<td>&quot;</td>
<td>4535</td>
<td>4545</td>
<td>2.0</td>
<td>0.5</td>
<td></td>
<td>1.5</td>
<td></td>
<td></td>
<td>Hard slightly calcareous grayish brown oil sand. Fair odor and light cut. 1/2&quot; pieces of firm fine to medium oil sand. Fair odor and amber cut. Oil sand has few grayish spots.</td>
</tr>
<tr>
<td>3-24-41</td>
<td>&quot;</td>
<td>4545</td>
<td>4555</td>
<td>0.6</td>
<td>0.3</td>
<td></td>
<td>0.3</td>
<td></td>
<td></td>
<td>Pieces of hard calcareous grayish brown oil sand. One piece has small shale streak at approximately 75°. Possibly fault gouge. Fair odor and light cut. Soft fine brown oil sand. (Mud striations). Good odor and light amber ether cut.</td>
</tr>
<tr>
<td>3-24-41</td>
<td>&quot;</td>
<td>4555</td>
<td>4565</td>
<td>2.6</td>
<td>1.0</td>
<td></td>
<td>0.7</td>
<td>0.7</td>
<td>0.2</td>
<td>Pieces of hard brown shale. One apparent dip of 20°. Mixed shale and oil sand and mud. (free oil) Hard brown shale.</td>
</tr>
</tbody>
</table>
## UNION OIL COMPANY OF CALIFORNIA
### CORE RECORD

<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-24-41</td>
<td>95-5/8&quot;</td>
<td>4565</td>
<td>4575</td>
<td>5175</td>
<td>1.8</td>
<td>0.1</td>
<td>0.7</td>
<td>1.0</td>
<td>1.1</td>
<td>Hard brown shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barrett</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fine mushy brown oil sand. Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Robshaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>odor and amber cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pieces of hard brown shale, badly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>broken by coring. Coring became</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>hard at 452'.</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>4575</td>
<td>5112</td>
<td>5117</td>
<td>2.3</td>
<td>0.3</td>
<td>0.3</td>
<td>2.0</td>
<td>0.3</td>
<td>Hard calcareous shale</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5117</td>
<td>5122</td>
<td>5122</td>
<td>2.9</td>
<td>0.6</td>
<td>2.0</td>
<td></td>
<td>0.9</td>
<td>Hard brown shale. Very poor possible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dip of 45°.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>Fine brown oil sand, fair odor, good</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>greenish cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm brown shale.</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5122</td>
<td>5132</td>
<td>5132</td>
<td>3.7</td>
<td>0.4</td>
<td>2.5</td>
<td></td>
<td>0.3</td>
<td>Sandy brown shale.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Soft mushy fine to medium brown oil sand;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>fair odor, greenish amber cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Muddiness could be from rain.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sandy brown shale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Chunks of oily brown shale.</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5132</td>
<td>5142</td>
<td>5142</td>
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<td>0.4</td>
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<td>NO RECOVERY</td>
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<td>&quot;</td>
<td>5142</td>
<td>5147</td>
<td>5147</td>
<td>4.5</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td>Hard slightly calcareous brownish-black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>shale.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard to firm, fine to medium, brown oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>sand. Fair odor, good amber cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Trade free oil on core.</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5147</td>
<td>5155</td>
<td>5152</td>
<td>2.6</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td>Sandy brown shale (Shell by driller</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>at 51.48').</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fine light brown oil sand, fair odor,</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dark greenish amber cut.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm brownish-black shale, possible</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>suggestion of 40° dip (?).</td>
</tr>
<tr>
<td>3-28-41</td>
<td>&quot;</td>
<td>5155</td>
<td>5156</td>
<td>5156</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
<td></td>
<td>1.5</td>
<td>No recovery</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5156</td>
<td>5166</td>
<td>5166</td>
<td>0.7</td>
<td>0.3</td>
<td>0.4</td>
<td></td>
<td>1.1</td>
<td>Chunks brown shale scattered through 6' of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mud.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sandy brown shale.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5166</td>
<td>5171</td>
<td>5171</td>
<td>0.5</td>
<td>0.5</td>
<td>X</td>
<td></td>
<td></td>
<td>Chunks sandy brown shale with 2 seams</td>
</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>fine brown oil sand. Greenish amber cut,</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>free oil in fractures.</td>
</tr>
</tbody>
</table>

*Henry S. Winten*
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>SIZE &amp; TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL</th>
<th>SHALE</th>
<th>OIL</th>
<th>SAND</th>
<th>GRAY</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-29-41</td>
<td>5-5/8&quot;</td>
<td>5171</td>
<td>5175</td>
<td>5175</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard brown shale.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5175</td>
<td>5185</td>
<td>5185</td>
<td>2.6</td>
<td>1.0</td>
<td>0.8</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>Medium to slightly coarse with pebbles, firm, light brown oil sand, good greenish-amber cut.</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Hard brownish-black sandy shale.</td>
</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>Medium hard brown sandy shale.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Soft, fine, light brown oil sand.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Good odor, good greenish cut.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium hard brownish-black shale.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Suggestion of 45° dip. Possible fracture at 60°.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm brown sandy shale.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Soft fine light brown oil sand.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Good odor.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5185</td>
<td>5192</td>
<td>5192</td>
<td>4.4</td>
<td>1.2</td>
<td>0.6</td>
<td>0.6</td>
<td>1.7</td>
<td>0.8</td>
<td>Fine to medium, firm to soft, light brown oil sand; fair odor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fine, firm, light brown oil sand.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dark amber cut. (Looks residual).</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fine to medium with few pebbles, firm to soft, light brown oil sand, fair odor, light greenish-amber cut.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fine gray sandstone shell.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5192</td>
<td>5199</td>
<td>5199</td>
<td>2.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>Hard gray sandstone shell.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5199</td>
<td>5205</td>
<td>5205</td>
<td>0.3</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td>0.3</td>
<td>Firm, fine to medium, light brown oil sand, poor odor, dark greenish-amber cut.</td>
</tr>
<tr>
<td>3-29-41</td>
<td>&quot;</td>
<td>5205</td>
<td>5211</td>
<td>5211</td>
<td>6.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>6.0</td>
<td>Firm, fine, light brown oil sand with streaks gray sand. Poor odor, dark amber cut. (Looks residual).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Soft to firm, fine, light brown oil sand, poor odor, dark greenish cut.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm, biscuity, fine light brown oil sand, fair odor, dark cut.</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL REC.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
<td></td>
</tr>
<tr>
<td>---------</td>
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<td>------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>3-29-41</td>
<td>5211</td>
<td>5-5/8&quot;</td>
<td>5217</td>
<td>5217</td>
<td>4.5</td>
<td></td>
<td>0.2</td>
<td>0.3</td>
<td>1.4</td>
<td>Firm to soft, fine to medium-fine gray sand. No odor. Hard black shale with possible fractures at 45° and 60°. Firm, fine, light brown oil sand with gray cast. No odor. Firm, fine to medium, light brown oil sand with fair odor. Good greenish-amber cut.</td>
<td></td>
</tr>
<tr>
<td>3-29-41</td>
<td>5217</td>
<td>&quot;</td>
<td>5223</td>
<td>5223</td>
<td>1.0</td>
<td>1.0</td>
<td>0.1</td>
<td>0.1</td>
<td>2.0</td>
<td>Soft to firm, fine to medium-coarse with pebbles, brown oil sand with small streaks gray sand.</td>
<td></td>
</tr>
<tr>
<td>3-29-41</td>
<td>5223</td>
<td>&quot;</td>
<td>5229</td>
<td>5229</td>
<td>2.1</td>
<td>2.0</td>
<td>0.1</td>
<td>0.1</td>
<td>1.0</td>
<td>Firm, fine to medium, brown oil sand with grayish cast. Dark cut. Hard brownish-black shale.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>5229</td>
<td>&quot;</td>
<td>5235</td>
<td>5235</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>Firm to soft, fine to medium fine, brown oil sand with grayish cast. Medium amber cut. Free oil on core and in breaks.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>5235</td>
<td>&quot;</td>
<td>5241</td>
<td>5241</td>
<td>5.0</td>
<td>2.3</td>
<td>0.1</td>
<td>0.4</td>
<td>0.6</td>
<td>Firm to soft, fine to medium-fine, brown oil sand with dark ether cut. Fair odor. Free oil on core and in breaks. Hard brownish-black slightly sandy shale. Firm, fine to medium brown oil sand with free oil on core. Hard brownish-black shale Soft, mushy, fine, light brown oil sand. Hard brownish black shale Soft fine light brown oil sand. Hard, burnt, black shale.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>5241</td>
<td>&quot;</td>
<td>5245</td>
<td>5245</td>
<td>2.0</td>
<td>0.4</td>
<td>0.1</td>
<td>0.4</td>
<td>0.9</td>
<td>Firm gray sandy shale with narrow seams gray sand at 40°. Hard brownish-black shale with fracture at 45°. Mud with hunks dark brown shale. Hard dark brown burnt shale.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>5245</td>
<td>&quot;</td>
<td>5246</td>
<td>5246</td>
<td>0.9</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td>Hard dark brownish-black shale.</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL REC.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
<td></td>
</tr>
<tr>
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<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>5-5/8&quot;</td>
<td>5246</td>
<td>5251</td>
<td>5251</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>Hard brownish-black shale with small hunks and pieces of underage core.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5251</td>
<td>5253</td>
<td>5253</td>
<td>0.9</td>
<td>0.9</td>
<td>X</td>
<td></td>
<td></td>
<td>Firm brownish-black shale with a narrow seam of fine gray sand.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5253</td>
<td>5259</td>
<td>5259</td>
<td>4.0</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td>Mud with hunks fairly soft brownish-black shale.</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard, well-cut, dark brownish-black shale.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5259</td>
<td>5264</td>
<td>5264</td>
<td>5.0</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td>Hard well-cut dark brownish-black shale. Shows no bedding but gives consistent fracture at 45° when broken.</td>
<td></td>
</tr>
<tr>
<td>3-30-41</td>
<td>&quot;</td>
<td>5264</td>
<td>5270</td>
<td>5270</td>
<td>3.0</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td>Mud interspersed with soft pieces dark brownish-black shale. Slightly sandy in spots.</td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5270</td>
<td>5276</td>
<td>5276</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5276</td>
<td>5280</td>
<td>5280</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
</tr>
<tr>
<td>3-31-41</td>
<td>&quot;</td>
<td>5280</td>
<td>5281</td>
<td>5281</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER</td>
<td>SIZE &amp; TYPE BAREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECITY</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
</tr>
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<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>3-31-41</td>
<td>5281</td>
<td>5-5/8&quot;</td>
<td>Barrett-Robishaw</td>
<td>5282</td>
<td>5292</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No recovery.</td>
</tr>
<tr>
<td>4-1-41</td>
<td></td>
<td>&quot;</td>
<td>5295</td>
<td>5310</td>
<td>5310</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Drilling mud with fragments hard brown black shale scattered through it. One fragment gray sandstone shell recovered). Soft muddy dark brown shale. Firm sandy shale with inter-bedded lenses of gray sand. May be burnt.</td>
</tr>
<tr>
<td>4-1-41</td>
<td></td>
<td>&quot;</td>
<td>5310</td>
<td>5325</td>
<td>5325</td>
<td>1.2</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td>Hard brownish-black shale, broken up by coring. Firm, fine to medium-fine light brown oil sand. Good greenish-amber ether cut, fair odor. Soft to firm, muddy, black shale. Soft, mushy, fine to medium light brown oil sand. Firm, fine to medium-fine light brown oil sand. Hard gray sandstone shell. Soft, medium light brownish-gray sand with mud striations.</td>
</tr>
</tbody>
</table>

Henry Swiniter
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER SIZE &amp; TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL RECY.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GUM SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1-41</td>
<td>5-5/8&quot;</td>
<td>Gauthey</td>
<td>5325</td>
<td>5340</td>
<td>0.0</td>
<td></td>
<td>1.3</td>
<td>0.5</td>
<td>1.2</td>
<td>No recovery</td>
</tr>
<tr>
<td>4-1-41</td>
<td></td>
<td></td>
<td>5340</td>
<td>5346</td>
<td>5.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Firm, fine to medium-fine, with pebbles, light brown oil sand. Fair odor, good greenish-amber cut. Firm, fine to medium-fine, brown oil sand. Good odor, good greenish-amber cut. Firm, fine to medium with pebbles, light brown oil sand. Fair odor, good greenish-amber cut. Firm, fine to medium with few pebbles, light brown oil sand. Good greenish-amber cut. Fracture at 5344', showed slickensides at 12° dip. Firm, fine to medium, slightly coarse with many pebbles, light brown oil sand. Firm, fine to medium, brown oil sand. Good odor, dark greenish-amber cut.</td>
</tr>
<tr>
<td>4-2-41</td>
<td>5-5/8&quot;</td>
<td>Hughes</td>
<td>5346</td>
<td>5364</td>
<td>2.6</td>
<td>(5)</td>
<td>X</td>
<td>0.5</td>
<td>0.3</td>
<td>Rotary mud with a few streaks soft black shale and gray sand. Firm, medium-fine, light brown oil sand. Good odor, good greenish-amber ether cut. Soft, fine to medium, brown oil sand. 1.8 Hard gray sandstone shell.</td>
</tr>
<tr>
<td>4-2-41</td>
<td></td>
<td></td>
<td>5364</td>
<td>5379</td>
<td>1.5</td>
<td></td>
<td>1.5</td>
<td></td>
<td></td>
<td>Soft-firm, fine-medium brown oil sand. (Grayish cast). Fair, but burnt odor, dark greenish cut. Whole core lightl burnt.</td>
</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES
Calif. 1/21/41

Name of Operator

Address
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T.

R. 13 W., Los Angeles B. & M., as herewith enumerated by well numbers.

Logs

History

Core record

Subsequent work

Declaring - Oil Operators 4

R. D. BUSH, State Oil and Gas Supervisor

By

DUPLICATE

FORM 127, 97997 6-40 3500 TRIP

CALIFORNIA STATE PRINTING OFFICE
Mr. W. S. Eggleston,
Los Angeles,

Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 4 Sec. 13, T. 4S., R. 13W. S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by Chas. Corwin, Inspector, on April 14, 1941. There was also present E. G. Tröstel, Engineer, W. A. Meginnis, Driller.

Casing Record: 13-3/8" cem. 757', 8-5/8" cem. 4005'.

The operations were performed for the purpose of demonstrating that no fluid has access to the well between the 4-3/4" and 8-5/8" casings,

and the data and conclusions are as follows:

The Inspector arrived at the well at 5:00 P. M. and Mr. Tröstel reported the following:

1. The hole was cleaned out to 4408'.
2. A 6-5/8" rotary hole was drilled from 4408' to 5379'.
3. Mud fluid was circulated 3-1/2 hr. before cementing the casing.
4. Electrical core readings showed the top of the Brown Zone 4630'.
5. On April 10, 1941, 1572' of 4-3/4" - 16 lb. casing was cemented at 5376' with 200 sacks of Colton cement.
6. Cement was drilled out of the 8-5/8" casing from 3680' to 3804' and out of the 4-3/4" casing from 3804' to 5361'; equivalent to 35 and 118 sacks, respectively.
7. On April 14, 1941, at 9:00 a. m. the fluid in the hole was bailed to 3039'.

The Inspector noted the following:

1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open below 3915'.

The test was completed at 5:50 p. m.

The operations as witnessed and reported are approved as indicating that fluid does not have access to the well between the 4-3/4" and 8-5/8" casings.

cc- H. E. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor
By E. Kugler
Deputy
Mr. W. S. Egleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

No. P-35034

Los Angeles, Calif.,

January 13, 1941

Dear Mr. Egleston:

Your proposal to deepen Well No. 4, Section 13, T.4 S., R.13 W., S.E., B & M., Long Beach Field, Los Angeles County, dated Jan. 9, 1941, received Jan. 10, 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 4,408' - Plug 4,305'
13-3/8" C 757'
5-5/8" C 4,005' O.K.
565' 6-5/8" L 4,408', inc. 60' perf. O.P. 4,314'
Remedies 4,348-4,399' and perf. 4,005-4,028 and 4,070-4,130'.
It is proposed to deepen the well as a lease offset to Hilldon P.C. #4.
Last production 1472 oil, 19,124 water - 31 days."

PROPOSAL:

"The proposed work is as follows:
1. Clean out to 4,408' and deepen to approximately 5,400'.
2. Cement 4-3/4" blank liner on bottom and gun perforate the top of the "S" zone and the top of the "T" Zone for production.
3. 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. Any hole to be sidetracked in any oil zone shall be filled with cement, if possible.
3. This division shall be notified to examine cores and/or electrical log before running the 4-3/4" casing.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   (a) A test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 4-3/4" and 6-5/8" casings.
   (b) A production test within 10 days after the well has been placed on production.

cc: H. E. Winter
Long Beach
WJC108

R. D. BUS
State Oil and Gas Supervisor
By

[Signature]
Deputy
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given fifteen days before work begins when possible

Santa Fe Springs  Cal.  January 9  1941

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 deepening, redrilling, plugging or altering casing in well No. Oil Operators 4

(Los Angeles County, Oil Field, Los Angeles County

The present condition of the well is as follows:

Total depth 4408' - Plug 4305'
13-3/8" C 757'
8-5/8" C 4005' 0.K.
565' 6-5/8" L 4408', inc. 60' perf. C.P. 4344'
Reperf. 4348-4399' and perf. 4005-4028 and 4070-4130'

It is proposed to deepen the well as a lease offset to Hilldon F.C. #4.
Last production - 1472 oil, 19,124 water = 31 days

The proposed work is as follows:

1. Clean out to 4408' and deepen to approximately 5400'.
2. Cement 4-3/4" blank liner on bottom and gun perforate the top of the "S" Zone and the top of the "T" Zone for production.
3. Test on production.

Respectfully yours

UNION OIL COMPANY OF CALIFORNIA
Name of Company or Operator

By: Division Engineer.

Address Notice to Deputy State Oil and Gas Supervisor in Charge of District Where Well is Located
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No.: Drill Operators #4, Sec. 13, T. 4-5, R. 13-W, SB

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 March 21, 1938, was filed.

Signed: Henry E. Winter

Date: April 4, 1938
Title: District Engineer

Outline in the order of performance, together with the dates thereof, all important operations which affect 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, depth, 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 drilling.

Casing Record at End of Work:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4305'</td>
<td>Depth - 4408', Plugged to 4305'</td>
</tr>
<tr>
<td>13-3/8&quot; C 757'</td>
<td></td>
</tr>
<tr>
<td>8-5/8&quot; C 4005'</td>
<td></td>
</tr>
<tr>
<td>565' 6-5/8&quot; L 4408', inc. 60' perf.</td>
<td></td>
</tr>
<tr>
<td>C. P. 4344', Rep. perf. 4399-4348</td>
<td></td>
</tr>
</tbody>
</table>

1938: Depth | Remarks
3-17 | 4408

3-19 | 4408

3-20 | 4408 Plug 4305 Located top of cement plug at 4305'. Perforated 6-5/8" casing from 4130 to 4070 with 83 holes and 4025 to 4005 with 36 holes, using Lane-Weed's 5-3/4" 12 shot gun with .45 caliber shells.

3-21 | 4408 " 4305 Landed 3" upset tubing at 3979.27'. Put well on pump at 1:00 PM 3-21-38.

180 gross, 127 net, 21.7 grav.; 22.4% cut - P 11 hrs.

3-22 | 452 " 360 " 22.1 20.4 P 24 "

3-23 | 525 506 22.1 52 P 24 "

3-24 | 545 534 23.6 2.0 P 24 "

3-25 | 563 555 23.6 1.2 P 24 "

3-26 | 531 525 23.6 1.1 P 24 "

3-27 | 506 499 23.6 1.4 P 24 "

3-28 | 493 486 23.6 1.1 P 24 "

3-29 | 477 472 23.6 1.0 P 24 "

3-30 | 465 459 23.6 1.2 P 24 "

3-31 | 449 445 23.6 1.0 P 24 "
DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator: Union Oil Company of California  Field: Long Beach

Well No.: Oil Operators #4  Sec. 13  T. 4-S  R. 15-W  S.D. B. & M.
346° 5' W. IV along the prolongation of the center line of San Antonio Drive from its
intersection with the center line of Riverside Drive, thence E. IV, 59.88
at right angles 859'.

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: 3-21-36  Signed: 

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

Commenced drilling: January 1, 1936  Completed drilling

Total depth: 4408  Plugged depth

Geological Markers

Junk  Wilber Shale  3586-3655

Amalitos Shale  3994-3942

Commen ced producing: 2-26-36  Flowing gas line/pumping (cross out unnecessary words)

Initial production: 150 21.2 7.8

Production after 30 days: 15 21.7 16.5

Casing Record (Present Hole)

Size of Casing  Depth of Shoe  Top of Casing  Weight of Casing  New or Second Hand  Seamless or Lapweld  Grade of Casing  Size of Hole  Casing landed in  Number of Sacks of Cement  Depth of Cementing if through perforations

13-3/8 757 Surface  45.97#/  New  Seamless  Slip-joint  17"  350

6-5/8 4005 "  32#/ & 36#  New & Used  "  C  12½"  400


Perforations

Size of Casing  From  To  Size of Perforations  Number of Rows  Distance Between Centers  Method of Perforations

6-5/8 4548 ft.  4408 ft.  120 mesh  16 6  Kobe

548-4599 - 60 holes L. & W. gun

Electrical Log Depths: Schlumberger from 757 to 4408  (Attach Copy of Log)
## FORMATIONS PENETRATED BY WELL

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<thead>
<tr>
<th>Depth to</th>
<th>Thickness</th>
<th>Name of Formation</th>
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</thead>
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<td>4015</td>
<td>62</td>
</tr>
<tr>
<td>4015</td>
<td>4408</td>
<td>393</td>
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</table>
DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR: Union Oil Company of California
FIELD: Long Beach

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

Date: 3-21-38

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 feet of cement drilled out of casing, depth at which cement paper started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridles 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>1938</td>
<td>1-1</td>
<td>50</td>
<td>Spudded in with 18-5/8&quot; rotary bit and drilled to 50'. Cemented 18-5/8 conductor pipe at 50' with 46 sax Velo cement.</td>
</tr>
<tr>
<td></td>
<td>1-4</td>
<td>758</td>
<td>Drilled with 17&quot; rotary bits to 758. Cemented new 13-3/8-45.97 National Seamless slip joint casing at 758 with 350 sax Velo treated cement. Cementing operations witnessed and approved by Karmelich of D.O.C.</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>911</td>
<td>Found top of cement at 754. Cleaned out cement and plugs and drilled ahead with 12½ bits.</td>
</tr>
<tr>
<td></td>
<td>1-22</td>
<td>4015</td>
<td>Drilled with 12½ bits to 3955 and cored with 7-5/8 core barrels to 4015. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td></td>
<td>1-23</td>
<td>4015</td>
<td>Reamed out core hole with 12½ bit to 4005. Cemented 8-5/8 - 32½ Grade C (1263 of 8-5/8 - 36½ on bottom) 8 thread rounded seamless casing at 4005 with 400 sax cement (200 sax Victor Oil Well and 200 sax Victor Construction)</td>
</tr>
<tr>
<td></td>
<td>1-28</td>
<td>4070</td>
<td>Found top of cement at 3978. Drilled out cement and plugs to 4005 and cleaned out to 4010. Water Shut Off test on 8-5/8 casing at 4005 witnessed and approved by Corwin of D.O.C. Drilled with 7-5/8 bit to 4070.</td>
</tr>
<tr>
<td></td>
<td>2-3</td>
<td>4408</td>
<td>Cored with 7-5/8 core barrels to 4408. Ran Schlumberger Survey.</td>
</tr>
<tr>
<td></td>
<td>2-5</td>
<td>4408</td>
<td>Under-reamed hole to 8½&quot; from 4007 to 4408. Landed 565' of 6-5/8 - 26½ Grade C casing at 4408 including 60' of (16-2-6) 120 mesh Kobe perforated on bottom. Cemented liner through ports of Baker Whirler basket at 4544 with 125 sax of Victor Oil Well cement.</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 Operators #4, Sec. 15, T. 4-S, R. 13-W, S.B. B. & M.

Signed: Henry Wall

Date: 3-21-38
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 sacs 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 or 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>2-11</td>
<td>4408</td>
<td>4408</td>
<td>Drilled out cement to 4343 and cleaned out to bottom of liner, Landed 3&quot; upset tubing at 4318 including 521' of Banash-Ross insert tubing on bottom.</td>
</tr>
<tr>
<td>2-17</td>
<td></td>
<td></td>
<td>Changed from mud to water and swabbed fluid to 3000'. Very little oil or gas. Pulled tubing. Alternated between running 6-5/8 swab past perforations as agitator, and bailing mud from bottom. Landed 3&quot; upset tubing at 4324. Installed pumping unit and started well pumping at 7 P.M., 2-17-38.</td>
</tr>
<tr>
<td>2-18</td>
<td>4408</td>
<td>Open 4402</td>
<td>Cleaned out sand to 4402. Reperforated 6-5/8 liner from 4399 to 4348 with 60 holes, using Lane-Wells 5 1/2&quot; - 12 shot gun with .45 caliber shells. Landed 3&quot; upset tubing at 4324. Installed pumping unit and started well pumping at 10 P.M., 2-28-38)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>43 gross</td>
<td>42 net</td>
<td>2.8% cut</td>
<td>P10 hrs.</td>
</tr>
<tr>
<td>15</td>
<td>14</td>
<td>21.2 grav. 1.4</td>
<td>P24</td>
</tr>
<tr>
<td>17</td>
<td>16</td>
<td>&quot;</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>&quot;</td>
<td>1.1</td>
</tr>
<tr>
<td>31</td>
<td>30</td>
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<tr>
<td>2-28</td>
<td>4408</td>
<td>Open 4402</td>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1</td>
<td>35</td>
<td>21.2 grav. 7.8</td>
<td>P7 hrs.</td>
</tr>
<tr>
<td>3-2</td>
<td>27</td>
<td>&quot;</td>
<td>7.8</td>
</tr>
<tr>
<td>3-3</td>
<td>25</td>
<td>&quot;</td>
<td>2.6</td>
</tr>
<tr>
<td>3-4</td>
<td>23</td>
<td>&quot;</td>
<td>13.3</td>
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</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 Operators #4, Sec. 15, T. 4-S, R. 13-W, S.B. B. & M.

Signed: [Signature]

Date: 3-21-38

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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>4408</td>
<td>Open 4402</td>
<td>21 gross 19 net 21.2 grav. 10.2% cut P24 hrs.</td>
</tr>
<tr>
<td>3-6</td>
<td>21</td>
<td>19</td>
<td>21.2 8.2 P24</td>
</tr>
<tr>
<td>3-7</td>
<td>19</td>
<td>16</td>
<td>21.2 15.3 P24</td>
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<td>3-8</td>
<td>18</td>
<td>13</td>
<td>21.7 27.6 P24</td>
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<td>18</td>
<td>13</td>
<td>21.7 25.6 P24</td>
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<td>14</td>
<td>21.7 24.2 P24</td>
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<td>21.7 18.4 P24</td>
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<td>6</td>
<td>21.7 17.2 P10</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
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<tr>
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</tr>
<tr>
<td>1-21-38</td>
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<td>7-5/8&quot; Soil</td>
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<td>Firm Soft Fine Silty Argillaceous Brown Oil Sand with streaks of Medium to coarse Brown Oil Sand. Fracture of 39° with Slickensides along dip.</td>
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<td>Firm Soft Fine Silty Argillaceous Brown Oil Sand with streaks of Dark Brown Shale</td>
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<td>6.7</td>
<td>Firm Soft Fine Silty Argillaceous Brown Oil Sand with streaks of Fine Silty Argillaceous Oil Sand. Good Odor and Dark Amber Cut</td>
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Signed: Henry Elmore
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<th>From</th>
<th>To</th>
<th>Total Recov</th>
<th>Shale</th>
<th>Oil Sand</th>
<th>Gray Sand</th>
<th>Smell</th>
<th>Description of Core</th>
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<td>7-5/8&quot; Soil</td>
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<td>Firm Soft Fine-Brown Oil Sand with streaks and inclusions of Fine Grey Sand. Streak of Brown Shale (0.1) 0.3 from bottom. Fair Odor and Amber Cut</td>
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<td>Hard Dark Brown Silty Shale Contact to Sand above irregular and at angle of 45° Apparent Dip of Shale -54°</td>
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<td>Hard Dark Brown Silty Shale, badly broken and mixed with mud Firm Soft Fine Brown Oil Sand Fair Odor</td>
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<td>Hard Dark Brown Silty Shale with streaks and partings of Fine Brown Oil Sand - Parting Planes 18° Soft Fine Brown Oil Sand with streaks of Shale. Top mixed with mud Firm Soft Medium to coarse Brown Oil Sand. Fair Odor and Amber Cut. Sand looks poor</td>
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<td>Hard Dark Brown Silty Shale with inclusions of Fine Grey Sand. Also streaks and partings of Fine Brown Oil Sand</td>
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<td>Firm Soft Medium to coarse Brown Oil Sand. Fair Odor and Amber Cut. Sand looks poor</td>
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<td>Hard Dark Brown Silty Shale. Fracture of 35° with Slickensides along Dip Firm Soft Fine Brown Oil Sand</td>
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<td>Hard Dark Brown crushed and Flaky Shale</td>
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<td>Hard, slightly Calcareous Shale Shell Hard Dark Brown Silty Shale Soft Fine Grey Sand, mixed with mud</td>
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<td>Hard Dark Brown Silty Shale Soft Loose Fine Grey Sand. No Odor and light Straw Cut</td>
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<td>TOTAL REC.</td>
<td>SHALE</td>
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<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
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<td>Fine Silty Dark Gray, slightly Argillaceous</td>
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<td>Firm Soft Fine Gray Sand. Top 0.4</td>
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<td>4.5</td>
<td>0.2</td>
<td>Hard Dark Brown Silty Shale and Fine Silty, slightly Argillaceous</td>
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<td>0.2</td>
<td>Dark Gray Sand. Shale and Sand badly broken and mixed with mud</td>
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<td>0.9</td>
<td>Firm Soft to Soft Massive Fine to coarse Gray Sand. Top 0.9 badly mixed with mud. Hard Calcareous Sandstone Shell 3.6 from top</td>
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<td>1.9</td>
<td>0.9</td>
<td>Firm Soft Massive Fine to coarse Gray Sand. Several fairly Hard, slightly Calcareous spots. Bottom 1.0 Fine and mixed with mud</td>
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<td>1.9</td>
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<td>1.9</td>
<td>0.9</td>
<td>Firm Soft Medium Gray Sand. Inclusion of Silty Brown Shale 0.8 from top</td>
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<td>1.9</td>
<td>0.9</td>
<td>Hard Sandy Dark Brown Shale with inclusions of Gray Sand - Streaks of Gray Sand 0.5 from top</td>
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Note: Bottom 2.8 of this Core was recovered in next Core bbl.
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<th>CORE NO.</th>
<th>DRILLER SIZE &amp; TYPE</th>
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<th>TO</th>
<th>TOTAL REC.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
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<td>23</td>
<td>7-5/8&quot; Soll</td>
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<td>Firm Soft Coarse Grey Sand</td>
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<td>Hard Silty Dark Brown Shale</td>
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<td>Dips 17° and 22°</td>
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<td>Hard Black Shale</td>
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<td>Hard Silty Dark Brown Shale - Shale badly broken and Burnt in Coring</td>
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<td>24</td>
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<td>Hard broken and fractured Black Shale, badly mixed with and Inclusions of Fine Gray Sand in bottom 0.4</td>
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<td>Hard Broken and fractured, Dark Brown to Black Shale. Top 2.3 badly fractured with vertical Fractures, Dip approximately 20°</td>
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<td>Hard Dark Brown to Black Silty Shale</td>
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<td>26</td>
<td>Barrett-Robishaw</td>
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<td>4337</td>
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<td>Hard Dark Brown to Black Silty Shale, sandy towards bottom. Inclusions of Fine Brown Oil Sand in bottom 0.8 Dip 20° Soft Mushy Fine Brown Oil Sand. Good Odor and Dark Amber Cut Hard Dark Brown Silty Shale with Inclusions of Fine Brown Oil Sand</td>
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<td>Soft Mushy Fine Brown Oil Sand. Good Odor and Dark Amber Cut</td>
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<td>Hard Fractured Dark Brown Silty Shale</td>
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Signed: Henry E. W.!!
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<th>FROM</th>
<th>TO</th>
<th>TOTAL REC'D</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SMELL</th>
<th>DESCRIPTION OF CORE</th>
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<td>Soft Medium to Coarse Brown Oil Sand</td>
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<td>33</td>
<td>&quot;</td>
<td>4397</td>
<td>4398</td>
<td>3.8</td>
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<td>Hard Dark Brown to Black Shale</td>
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<td>Soft Fine Silty Argillaceous Brown Oil Sand, Mixed with Mud</td>
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<td>Hard Fractured and Broken Dark Brown to Black Silty Shale, Streaks of Fine Silty Argillaceous Oil Sand</td>
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<td>Soft Fine Brown Oil Sand, Good Odor</td>
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<td>Hard Dark Brown to Black Silty Shale, Dip 24°</td>
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<td>1.5</td>
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<td></td>
<td>Firm Soft Fine Brown Oil Sand, Good Odor</td>
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<td>10.8</td>
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<td></td>
<td></td>
<td>Firm Soft to Firm, Medium to Coarse Brown Oil Sand, Graduating to Coarse Pebbled in Bottom 4.0. Bottom 4.0 has a Grayish Cast, Probably Due to Gray Pebbles. Good Odor and Amber Cut</td>
</tr>
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<td>Hole Corrected for Depth</td>
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<td></td>
<td>1.8</td>
<td>15.8</td>
<td></td>
<td></td>
<td>Firm Soft Coarse Pebbled Brown Oil Sand with Streaks of Fine Brown Oil Sand, Good Odor and Dark Amber Cut</td>
</tr>
</tbody>
</table>

Total Depth - 4408
Special Report on Operations Witnessed

No. T1-33997

Los Angeles, Calif. March 30, 1938

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 4 Sec. 13, T.4 S., R. 13 W., S.E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. J. Karmelich, Inspector, representative of the supervisor, on March 20, 1938. There was also present: H. Winter, Engineer, and L. C. Mitchell, Driller.

Casing Record 13-3/8" casing 757'; 8-5/8" casing 4005'.

The operations were performed for the purpose of testing the location and hardness of a cement plug proposed to be placed from 4408' to 4320' in the process of plugging back, and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 9:00 A.M. AND MR. WINTER REPORTED THE FOLLOWING:
1. The 6-5/8" liner was cleaned out to 4397'.
2. On March 18 and 19, 1938, 24 sacks of Victor oil well cement was dumped, beginning at 4397'.

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4305' and brought up a sample of set cement.

The test was completed at 9:30 a.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4305' ARE APPROVED.

cc: H. E. Winter
Long Beach
FJK: GR

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. 1-32183

Los Angeles, Calif. March 21, 1938

Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

Agent for: UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your supplementary proposal to drill Well No. "OIL OPERATORS" 4,

Section 13, T. 34 S., R. 12 W., S. B. & M., Long Beach Field, Los Angeles County,
dated Mar. 12, 1938, received Mar. 21, 1938, 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 present condition of the well is as follows:
4408 deep
13-3/8" C 757'
8-5/8" C 4005' OK
565' 6-5/8" L 4408', inc. 60' perf. C. P. 4341'
Reperf. 4348-4399
The well has been tested on the pump since March 1, 1938 with an average daily production of 15 gross, 16 net, 21.7 gravity."

PROPOSAL:
"The proposed work is as follows:
1. C. O. to 4408 and plug with cement under hydrostatic head to 4320'.
2. Test plug by Division of Oil & Gas.
4. Test on production."

DECISION:
THE PROPOSAL IS APPROVED.

cc- H. B. Winter
Long Beach
WJC:G

R. D. BUSH
State Oil and Gas Supervisor

By: 
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, Cal. March 18, 1938

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 deepening, redrilling, plugging or altering casing at well No. Oil Operators #4 (Cross out unnecessary words)

Long Beach Oil Field, Los Angeles County.

The present condition of the well is as follows:

4408 deep
13-3/8" C 767'
8-5/8" C 4005' OK
565' 6-5/8" L 4408', inc. 60' perf. C.P. 4344'
Reperf. 4348-4399

The well has been tested on the pump since March 1, 1938 with an average daily production of 18 gross, 16 net, 21.7 gravity.

The proposed work is as follows:
1. C.O. to 4408 and plug with cement under hydrostatic head to 4320'.
2. Test plug by Division of Oil & Gas.
4. Test on production.

Respectfully yours

UNION OIL COMPANY OF CALIFORNIA

By

District Engineer.

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

Union Oil Company of Calif.
Name of Operator

Los Angeles
Address

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13 T. 4 S.

R. 3 W. Lang 1081, B. & M., as herewith enumerated by well numbers.

History
Core record
Subsequent work Edgar Lagg Oil Operators 4 - 7/3/38

R. D. BUSH, State Oil and Gas Supervisor

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

Special Report on Operations Witnessed  

No. T 1-33847  

Los Angeles, Calif. February 24, 1938  

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

Agent for UNION OIL COMPANY OF CALIFORNIA  

Dear Sir:  

Operations at your well No. "OIL OPERATORS" 4 Sec. 13 T. 38 S. R. 13 W. S. B. & M., Long Beach Field, in Los Angeles County, were witnessed by P. J. Karmelich, Inspector, representative of the supervisor, on Feb. 10, 1938. There was also present H. Rampton, Engineer, and H. Robinson, Superintendent.  

Casing Record  
13-3/8" cem. 757'  8-5/8" cem. 4005'  
W. S. O.: 6-5/8" Id. 3837'-4408', c. p. h.44', perf.  
hyb. h.408'  T. D. h.408', plugged with cement  
hyb. h.5' 3951'.  

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

and the data and conclusions are as follows:  

THE INSPECTOR ARRIVED AT THE WELL AT 11:00 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:  
1. A 7-5/8" rotary hole was drilled from 4005' to 4408'.  
2. On February 5, 1938, 565' of 6-5/8" - 26 lb. casing, including 60' of perforated, was landed at 4408' and was cemented through perforations at 4.44' with 125 sacks of Victor oil well cement.  
3. Cement was drilled out of the 8-5/8" and 6-5/8" casings from 3676' to 3951' (equivalent to 62 sacks) and the casing was cleaned out to 3951'.  
4. On February 11, 1938, at 3:00 a.m., the fluid was bailed to 3935'.  

THE INSPECTOR NOTED THE FOLLOWING:  
1. No fluid entered the well while standing 8 hr. for test.  
2. The fluid was located at 2535'.  
3. The sample of fluid from bottom tasted fresh.  
4. The hole was open to 3951'.  

The test was completed at 12:00 noon.  

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 6-5/8" casings.  

cc: H. E. Winter  
Long Beach  
PJKG  

R. D. BUSH  
State Oil and Gas Supervisor  

By E. M. Anderson  
Deputy
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T. 1-33775

Los Angeles, Calif. February 9, 1938.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS" 4, 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 January 26, 1938. Mr. Chas. Corwin, Time and date designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present: R. Rampton, Engineer,

H. Robinson, Superintendent.

Location of water tested above 4005' and normal fluid level not determined.

Depth and manner of water shut-off:

- 1263 ft. of 5-5/8 in. 36 lb. casing was cemented in shale Formation at 4005 ft. with 200 sacks Vicer construction oil well cement by casing method.

Water string was landed in 12 1/4" rotary hole.

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

Reported total depth of hole 4015 ft. Hole bridged from XX ft. to XX ft. Hole cleaned out to XX ft. for this test. See below

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

At XXXX ft. oil bailed to XXXX ft., drilling fluid {bailed swabbed} to XXXX ft.

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

The Inspector arrived at the well at 3:15 p.m. and Mr. Rampton reported the following:

1. A 12 1/4" rotary hole was drilled from 757' to 4015'.
2. Mud fluid was circulated for 1/2 hr. before cementing the casing.
3. Electrical core readings showed shale 3971' - 4005' (H 1)
4. No casing test was made.
5. 27' of set cement was drilled out of the 5-5/8" casing (equivalent to 8 sacks).
6. The Johnston tester was run into the hole on 4" drill pipe.
7. The wall packer was set at 3991'.
8. The tester valve was opened at 1:58 p.m. and remained open for 30 minutes. During this interval there was a good, steady blow throughout the test.

The Inspector noted the following:

1. When the drill pipe was removed 1550' of fluid was found in the drill pipe above the tester, consisting of the following: 20' drilling fluid, 1230' gas and oil, 100' oil sand, equivalent to 22 bbl.

R. D. BUSH
State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2) Deputy
2. The fluid sample taken from the bottom of the drill pipe tasted fresh.
3. The recording pressure bomb chart was torn, but could observe that the valve had been opened.

The test was completed at 4:20 p.m.

THE SHUT-OFF IS APPROVED.

cc- H. E. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor

By [Signature] Deputy
629 South Hill Street
Los Angeles, California
January 15, 1938.

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 of January 13, 1938, giving the elevation of well No. "Oil Operators" 4, Sec. 13, T. 4 S., R. 13 W., S. B. E. & W., Long Beach field, as 53.35' U. S. G. S.

We are correcting our records accordingly.

Yours truly,

[Signature]

WJC:EMS
Deputy Supervisor.

CC - Mr. R. E. Bush (2)
Long Beach
Santa Fe Springs, Calif.  Jan. 13, 1938

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #4", in the Long Beach Field, (Section 13, 4-S, 13-W), is 53.88 U.S.G.S.

The location is the same as in the original notice to drill.

Very truly yours,

[Signature]

District Engineer.
Santa Fe Springs, Calif.  Jan. 13, 1936

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #4", in the Long Beach Field, (Section 13, 4-S, 13-W), is 53.88 U.S.G.S.

The location is the same as in the original notice to drill.

Very truly yours,

Henry E. White
District Engineer.
Mr. Ed. Jusen, Jr.,

Los Angeles, Calif.

DEAR SIR:

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

F. J. Karmeloch

on January 4, 1938. There was also present R. Rampton, Engineer,

F. T. Shores, Driller.

Casing Record


T. D. 758'.

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 4:00 P. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. A 17" rotary hole was drilled from 50' to 758'.
2. 757' of 13-3/8" - 45 lb. casing was run into the hole to 757'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The 13-3/8" casing was cemented at the reported depth of 757' with 350 sacks of Velo 24 hour cement.
2. The cement was displaced from the casing with 673 cubic feet of drilling fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:42 a.m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT THE KNOWN SURFACE WATERS ARE ADEQUATELY PROTECTED.

cc- H. E. Winter

Long Beach

R. D. Bush

State Oil and Gas Supervisor

By

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

Report on Proposed Operations

No. P7-31816

Los Angeles, Calif. December 23, 1937.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. 4, Section 13, T. 4 S., R. 13 W., S.B. B & M., Long Beach Field, Los Angeles County, dated Dec. 20, 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 965 feet N-W'ly along the center line of Pacific Electric B.R. from the intersection with the center line of Dixby Road (Proj.) and thence 289' S-W'ly at right angles. The elevation of the derrick floor above sea level will be determined later (approx. 54'). We estimate that the first productive oil or gas sand should be encountered at a depth of about 55% feet." *53,98' U.S.G.S. (Correction letter 1-18-38)

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>Grade and Type</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>Cemented</td>
</tr>
<tr>
<td>8-5/8</td>
<td>36#</td>
<td>New</td>
<td>4000</td>
<td>Cemented</td>
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<tr>
<td>6-5/8 liner</td>
<td>26#</td>
<td>New</td>
<td>4400</td>
<td>Cemented</td>
</tr>
</tbody>
</table>

The 6-5/8" liner to be a combination splice liner to be cemented through perforations at the base of the "JK" shale. 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 in a manner consistent with good drilling practice.

4. This division shall be notified to examine cores and/or electrical log before running the 8-5/8" casing.

5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   (a) The cementing of the 13-3/8" surface casing.
   (b) A test of the effectiveness of the 8-5/8" shut-off.
   (c) A test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 8-5/8" and 6-5/8" casings.

cc- H. E. Winter
Long Beach
WJ:CE

R. D. BUSH
State Oil and Gas Supervisor
By [Signature] Deputy
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 drilling well No. "Oil Operators" 4, Sec. 13, T.4-S, R.13-W, S.B. B. & M., Long Beach Field, Los Angeles County.

Lease consists of N-1/2ly along the center line of Pacific Electric R.R. from the intersection with the center line of Fifty Road (Proj.) and thence 200 ft. E-Wly at right angles.

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

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

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>Grade and Type</th>
<th>Depth</th>
<th>Landed or Cemented</th>
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</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>46#</td>
<td>New</td>
<td>700</td>
<td>Cemented</td>
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<tr>
<td>8-5/8</td>
<td>36#</td>
<td>New</td>
<td>4000</td>
<td>Cemented</td>
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<tr>
<td>6-5/8 liner</td>
<td>26#</td>
<td>New</td>
<td>4400</td>
<td>Cemented</td>
</tr>
</tbody>
</table>

The 8-5/8" liner to be a combination splice liner to be cemented through perforations at the base of the "JK" shale

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.

Address: Santa Fe Springs

Telephone number: Whittier 428-87

Name of Operator:

District Engineer:

Address Notice to Division of Oil and Gas in District Where Well is Located
Your report of abandonment of well “Nwlbu” 8-3, A.P.I. No. 037-06496, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 12/15/2013, received 1/8/2014, 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 12/2/2013.
2. Site inspection made and approved on 12/19/2013.
Mr Mark Pender
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your report of abandonment of well "Nwilbu" 8-3, A.P.I. No. 037-06496, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 12/12/2013, received 2/4/2014, has been examined in conjunction with 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 filing of well records.


2. Site inspection made and approved on 12/19/2013.

Pat Perez
Acting State Oil and Gas Supervisor

Daniel J. Dudak, District Deputy
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

SITE RESTORATION MEMO

Operator: C.R.G Properties, Ltd
API No: 037-06496
Field: Long Beach
Mr. / Ms: Abdulmageed (AB) Abdurahman

Well: "NW.BU" 8-3
Sec: 13
T: 045
R: 13W
SB:
B&M:
County: Los Angeles
Date: 3/2/2014

Representative of the supervisor, was present 1000 to 1200

There were also present: Mick Beyer of AllenCo

Contact Number: (310) 505-9787

Email:

Surface location description: The property at 712 W. Baker Street, (Baker Street / Golden Street) The property can be accessed near intersection of Magnolia Ave. and Wardlow Rd.

Date of Abandonment/Re-Abandonment: 11/01/2013

<table>
<thead>
<tr>
<th>Well Accessibility</th>
<th>Approved</th>
<th>Not Approved</th>
<th>Corrected</th>
<th>Comments</th>
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</thead>
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<tr>
<td>Oil Field Related Waste/Refuse Removed</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Well Cellar Removed</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operation Sumps Removed</td>
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<tr>
<td>Visible Surface Oil Contamination Removed</td>
<td>x</td>
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<td>Not applicable</td>
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<td>Oil Field Related Power Pole(s) Removed</td>
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<td>Tank(s) Removed</td>
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<td>Surface Pipeline(s) Removed</td>
<td>x</td>
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<tr>
<td>Pad(s) Removed</td>
<td>x</td>
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</tbody>
</table>

Photos Taken For The Final Inspection:
See the following photos:

Number of deficiencies: 11/A
Deficiency Letter Date: ______ Deficiency Letter Number: ______

Photos attached to well file: Yes □ No □
The inspection as witnessed and reported is approved. Yes □ No □

By: Abdulmageed G. Abdurahman
Date: 6/17/2014

Dist 1, Rev 5/2014
All equipment, pipeline, casing or junk were removed from the site. All liquid wastes were removed and properly disposed. Excavations filled with earth and compacted properly to prevent settling.

Additional description of site restoration:

Discription:
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST – RECORDS RECEIVED AND WELL STATUS

Company: C.R.G. Properties, LTD
API#: 037-06496
County: Los Angeles
Well: NWLBU 8-3
Sec. 13, T. 4S, R. 13W. S. B. B. & M.
Field: Long Beach

<table>
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<th>RECORDS RECEIVED</th>
<th>DATE</th>
<th>STATUS</th>
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<td>Well Summary (Form OG100)</td>
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<td>History (Form OG103)</td>
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<td>Core Record (Form OG101)</td>
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<td>Sidewall Samples</td>
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<td>Idle</td>
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<tr>
<td>Date final records received</td>
<td></td>
<td>Reabandoned</td>
</tr>
<tr>
<td>Electric Logs:</td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WELL TYPE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td></td>
<td>Waterflooding</td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td>Water Disposal</td>
</tr>
<tr>
<td>Water Source</td>
<td></td>
<td>Cyclic Steam</td>
</tr>
<tr>
<td>Observation</td>
<td></td>
<td>Steam Flood</td>
</tr>
<tr>
<td>Exploratory</td>
<td></td>
<td>Fire Flood</td>
</tr>
<tr>
<td>Dry Hole</td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

EFFECTIVE DATE: 12/12/13

REMARKS: Abandoned

---

ENGINEERS CHECK LIST

- Summary, History & Core Record (Dupl.)
- Electric Log
- Operator's Name
- Signature
- Well Designation
- Location
- Elevation
- Notices
- "T" Reports
- Casing Record
- Plugs
- Directional Survey
- Production/Injection (FAP Codes: 412-03-00)
- E Well on Prod., enter EDP
- Surface Inspection Required
- Surface inspection Waived (Island)
- Well site restoration deferred (common cellar)
- Final Letter Required AB: X REAB: ■
- Other:

CLERICAL CHECK LIST

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Location change</td>
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<tr>
<td>Elevation change</td>
<td></td>
</tr>
<tr>
<td>Form OGD121</td>
<td></td>
</tr>
<tr>
<td>Form OGD150b (Release of Bond)</td>
<td></td>
</tr>
<tr>
<td>Duplicate logs to archives</td>
<td></td>
</tr>
<tr>
<td>Notice of Records Due</td>
<td></td>
</tr>
<tr>
<td>EDP</td>
<td>MC 5-15-14</td>
</tr>
<tr>
<td>District Date Base</td>
<td></td>
</tr>
<tr>
<td>Final Letter (OG159)</td>
<td>MC 5-15-14</td>
</tr>
<tr>
<td>Update Center</td>
<td></td>
</tr>
</tbody>
</table>

FIELD CHECK LIST

- Date Surface Inspection Completed: 12/19/13 BFD

RECORDS NOT APPROVED

Reason:

RECORDS APPROVED

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

OGD2 1/16/14 CYPRESS
HISTORY OF OIL OR GAS WELL

Date: 12-12-13

M.I.R.U. – Installed and tested BOPE–Witnessed by C. Cullum w/DOGGR - Secured Well

11-08-13

R.I.H.5 ½” Scraper tagged dn. @ 5842’ = 104’ above clean out depth - Circ. with water w/returns of oily water and gas - P.O.H. Witnessed by M. Okafor & Z. Amilhussin w/ DOGGR - Secured well

11-11-13

R.I.H.W/Tbg. cleaned out scale and fine sand from 5842’ to 5900’ unable to work deeper – Secured well

11-12-13

W/Tail at 5900’ mixed and pumped 247 cu/ft (217 sxs) class G cement – P.O.H.– Witnessed by Secured well

11-13-13


11-14-13

W/tbg. Tail at 3875’ Mixed and pumped 212 cu/ft. (186 sxs) class G cement – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.

11-15-13


11-18-13


11-19-13

Dug down around well and cut casing 5’ below surface – Found cement low inside 10’ and outside 20’ – Secured well

12-03-13

Topped off casing’s with 36 c.f.(31 sxs) class G cement- E. Tabor w/DOGGR witnessed

12-04-13

Surface tag and welding of I.D.Plate Witnessed by P.Kaufman - Backfilled well location - Job complete.

SUBMIT IN DUPLICATE
11-08-13  M.I.R.U. – Installed and tested BOPE–Witnessed by C. Cullum w/DOGGR - Secured Well

11-11-13  R.I.H.5 ½” Scraper tagged dn.@ 5842’ = 104’ above clean out depth - Circ.with water w/returns of oily water and gas - P.O.H. Witnessed by M. Okafor & Z. Amilhussin w/ DOGGR - Secured well

11-12-13  R.I.H.W/Tbg. cleaned out scale and fine sand from 5842’ to 5900’ unable to work deeper – Secured well

11-13-13  W/Tail at 5900’ mixed and pumped 247 cu/ft (217 sxs) class G cement – P.O.H.– Witness by Secured well


11-25-13  Dug down around well and cut casing 5’ below surface – Found cement low inside 10’ and outside 20’ – Secured well

12-03-13  Topped off casing’s with 36 c.f.(31 sxs) class G cement- E. Tabor w/DOGGR witnessed

12-04-13  Surface tag and welding of I.D.Plate Witnessed by P.Kaufman - Backfilled well location - Job complete.
CEMENTING/PLUGGING MEMO

Operator: CRG Properties
Well No.: "Nwibu" 8-3
API No.: 037-06496
Sec. 13
T. 04S
R. 13W
S.B.
B&M
Field: Long Beach
County: Los Angeles
On: 12-4-13
Mr. / Ms. J. Collender, representative of the supervisor, was present from 1115 to 1130.

There were also present Mr. Tim Parker (AllenCo)

Casing record of well: 13 3/8" cem 765', cp 200', 8 5/8" cem 3986', drilled thru 3139', cp 2,440', 5 ½" id 3043'-5964', cp 4393', perfs 4468'-5827'. TD (present hole) 6540'. Plugged w/ cem 6540'-6964', 5878'-4067', 3875'-2773', 2450'-2171', 210'-6.5'.

The operations were performed for the purpose of Abandonment

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

Hole size: 17' fr. 0' to 765', 12 ½' to 3139' & 7 5/8' to 6540'

<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</th>
<th>Squeezed Away</th>
<th>Final Pressure</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 5/8&quot;</td>
<td>36#</td>
<td>0'</td>
<td>3,986'</td>
<td>11/18/13</td>
<td>tbg@2,450'</td>
<td>200 cf</td>
<td>2174'</td>
<td>2171'</td>
<td>114 cf</td>
<td>700 psi</td>
<td>2,440'-2,450'</td>
</tr>
<tr>
<td>13 3/8&quot;</td>
<td>46#</td>
<td>0'</td>
<td>210'</td>
<td>11/19/13</td>
<td>tbg@200'</td>
<td>103 cf</td>
<td>0</td>
<td>29.5'</td>
<td>26 cf</td>
<td>--</td>
<td>200'-210'</td>
</tr>
</tbody>
</table>

Casing/tubing recovered: "Shot/cut at ______________________; Pulled fr. ______________________;

Junk (in hole):

Hole fluid (bailed to) at ________________ Witnessed by ______________________

<table>
<thead>
<tr>
<th>Mudding</th>
<th>Date</th>
<th>bbls</th>
<th>Displaced</th>
<th>Poured</th>
<th>Fill</th>
</tr>
</thead>
<tbody>
<tr>
<td>83/25</td>
<td>11/14/13</td>
<td>25</td>
<td>4067'</td>
<td>3,875'</td>
<td></td>
</tr>
<tr>
<td>73/26</td>
<td>11/18/13</td>
<td>27</td>
<td>2,773'</td>
<td>2,318'</td>
<td></td>
</tr>
<tr>
<td>73/40</td>
<td>11/19/13</td>
<td>120</td>
<td>2,018'</td>
<td>1,971'</td>
<td></td>
</tr>
</tbody>
</table>

Note (7) Class II 3M; 11/08/13; C. Welty

C/O 5900' w/ 20,000# @ 1200 11/12/13 PK

<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>11-13-13</td>
<td>247 cf</td>
<td>Tbg 5878*</td>
<td>0900</td>
</tr>
<tr>
<td>11-15-13</td>
<td>212 cf</td>
<td>Tbg 3875'</td>
<td>0830-1045</td>
</tr>
<tr>
<td>11-18-13</td>
<td>210 cf</td>
<td>Tbg 2450'</td>
<td>1300</td>
</tr>
<tr>
<td>11-19-13</td>
<td>73sx/84 cf</td>
<td>Tbg@200'</td>
<td>1425-1500</td>
</tr>
<tr>
<td>12/2/13</td>
<td>36 cf</td>
<td>Top 29.5</td>
<td>1030</td>
</tr>
</tbody>
</table>

* 6 stages with tbg raised from 5878' through 4313'
Andrews, Kathleen@DOC

From: Moser, Ellen@DOC
Sent: Tuesday, November 12, 2013 12:53 PM
To: Andrews, Kathleen@DOC
Subject: FW: Well Abandonment Nwlbu 8-3

Mick wants a variance to start cementing at 5900’.

From: Mick Beyer [mailto:mbeyer@allencoca.com]
Sent: Tuesday, November 12, 2013 12:34 PM
To: Moser, Ellen@DOC
Subject: Well Abandonment Nwlbu 8-3

Ellen,

We tagged fill at 5842’ cleaned out with water down to 5900’ (we had no solid returns to surface, it seemed like cement steamers) we are hitting hard at this depth. Well history is showing cement plug at 5964’ it seems we are hitting it at 5900’. We would like approval to start are cement plug at 5900’

Note; On well 9-4 we tagged hard at 9125’ when clean out depth was 9151’ DOGGR Allowed us to cement at 9125’
Note; On well 9-5 we tagged fill at 9410’ cleaned out hard to 9420’ when clean out depth was at 9454’ DOGGR Allowed us to cement at 9420’

Sincerely,

Mick
Mick Beyer, Operations Manager
mbeyer@allencoca.com
AllenCo
2109 Gundry Avenue
Signal Hill, CA 90755
Phone: 562-989-6100
FAX: 562-989-6104
Cell: 310-505-9787
www.allenco-oilwellservice.com

Telecon w/M. Beyer- gravel-sized chunks of cement had been brought up for some time with well fluids when circulating. Then brought up chunks of cement. Fill at 5900’ is hard, push on w/20K#. Okay to cement. Allenco will use 8 1/8” scraper to liner top, then circulate before placing mud. KMA 11/12/13.

11/14/13 Okayed change in program to place one plug from 3875’ to 2800’. KMA
Mr. Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049

Cypress, California  
January 24, 2014

Your operations at well "Nwibu" 8-3, A.P.I. No. 037-06496, Sec. 13, T. 04S, R. 13W, SB B&M, Long Beach field, in Los Angeles County, were witnessed on 11/8/2013, by Jack Collender, a representative of the supervisor.

The operations were performed for the purpose of plugging and abandonment.

DECISION: APPROVED

NOTE: The required Class 112M blowout prevention equipment was inspected and approved on 12/4/2013.

DEFICIENCIES NOTED AND CORRECTED: NONE
**BLOWOUT PREVENTION EQUIPMENT MEMO**

Operator: C.R.G. Properties, LTD  
Well: "NWLB" U 8-3  
Field: Long Beach  
Well: "NWLBH" U 8-3  
Sec: 13  
T: 4S  
R: 13W  
Spud Date:  
County: L.A.  

**VISITS:**

1st: 11/08/13  
Engineer: C. Welty  
Time: (1500 to 1530)  
Operator's Rep.:  
Title:  
Contractor: Allenco  
Rig #: 2  
Contractor's Rep. & Title: Derick Beyer, Driller  
Casing record of well: memo

**OPERATION:** Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☑ N ☐

**DECISION:** The blowout prevention equipment and its installation on the 8,625 psi casing are approved.

**Proposed Well Ops:** Abandonment  
MACP:  

| REQUIRED BOPE CLASS:  
| II3M  
| C1100  
| 11/18/13 |

**HOLE SIZE:**  

**CASING RECORD OF BOPE ANCHOR STRING**

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

**BOP STACK**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Rd</td>
<td>2 7/8</td>
<td>Shaffer</td>
<td>Chasoy</td>
<td>7.125</td>
<td>5M</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Rd</td>
<td>cso</td>
<td>Shaffer</td>
<td>Chasoy</td>
<td>7.125</td>
<td>5M</td>
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<td>1</td>
<td></td>
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</table>

**TEST DATA**

**ACTUATING SYSTEM**

<table>
<thead>
<tr>
<th>Accumulator Unit(s) Working Pressure</th>
<th>1,400 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Rated Pump Output</td>
<td>gpm</td>
</tr>
<tr>
<td>Distance from Well Bore</td>
<td>ft.</td>
</tr>
<tr>
<td>Accum. Manufacturer</td>
<td>Capacity</td>
</tr>
<tr>
<td>1</td>
<td>Koomey type</td>
</tr>
<tr>
<td>2</td>
<td>gal. psi</td>
</tr>
</tbody>
</table>

**CONTROL STATIONS**

<table>
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<tr>
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<tbody>
<tr>
<td>X</td>
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</table>

<table>
<thead>
<tr>
<th>EMERG. BACKUP SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₂ Cylinders</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>TOTAL: 14</td>
</tr>
</tbody>
</table>

| TOTAL: 2 |
| AUXILIARY EQUIPMENT |
| Size (in.) | Rated Press |
| Connections | Weld | Flange | Thread | Test Press. |

<table>
<thead>
<tr>
<th>HOLE FLUID MONITORING EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Type</td>
</tr>
<tr>
<td>Calibrated Mud Pit</td>
</tr>
<tr>
<td>Pit Level Indicator</td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
</tr>
<tr>
<td>Pit Level Recorder</td>
</tr>
<tr>
<td>Flow Sensor</td>
</tr>
<tr>
<td>Mud Totalizer</td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:**
7.5'

4.5' FOV 17'

ETOC = 95'

3505x = 402.5cf

3 13 17 = 6701lin ft

ETOC = 95'

EROC = 2879

12 4'

Drilled thru c = 5184

5184

3184

3174

3144

3233

3910

3909

4158

4157

1157

5101

7.5' FOV 17'

5450' to 5446

5446 - 3685 inside 5 1/2" awe 230cf

285xx = 3 366 - 230 = 106cf

106cf in 5 1/2" x 7 5/8" = 6971lin ft

ETOC = 4744'

7 1/8' hole

TD = 6540'

7 1/3 CF in 5 1/2" x 7 5/8"

fills from 5964 to 3043

KWA
11-6-13

"NW16U" 8-3
Mr Mark Pender, Agent  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049  

Your proposal to Abandon well "Nwibu" 8-3, A.P.I. No. 037-06496, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.  
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 8-5/8" 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 well location shall be surveyed prior to burying the well, and the survey shall be filed with this office.  
7. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.  
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. 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 6540'.

(Continued on page 2)
c. Witness the placing, location and hardness of the cement plug from 6540' to 4193'.

d. Witness the mudding operations.

e. Witness the placing, location and hardness of the cement plug from 3875' to 3675'.

f. Witness the placing, location and hardness of the cement plug from 3043' to 2800'.

g. Witness a pressure test of the 8-5/8'' casing.

h. Witness the cement squeeze through the perforations at 2440' through a retainer or packer (if casing integrity is not demonstrated).

i. Witness the placing, location and hardness of the cement plug from 2450' to 2190'.

j. Witness the cement squeeze through the perforations at 210' through a retainer or packer (if casing integrity is not demonstrated).

k. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.

l. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.

2. 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.

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 at 2260'.
   b. Top of the Upper Gas Zone at 2400'.
   c. Top of the Wilbur Zone at 3000'.
   d. Top of the Alamitos Zone at 3875'.
   e. Top of the Brown Zone at 4680'.

Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☑ / re-abandon ☐ well "Nwibu" 8-3, API No. 037-06496, Sec. 13, T. 4s, R. 13w, S.B., B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

See Attachment

<table>
<thead>
<tr>
<th>The total depth is:</th>
<th>6540 feet.</th>
<th>The effective depth is:</th>
<th>5964 feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present completion zone(s): see attachment</td>
<td>Present zone pressure: N/A psi.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil or gas shows: see attachment</td>
<td>Depth to base of fresh water: 2260 feet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 SUNDRY 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@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

OG108 (1/09)

JUL 10 2013

[Signature]
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/DOGGR
C.R.G. Properties, Ltd.  Well "Nwlbu" 8-3 (037-06496), 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: West of Pacific Place just North of the 710 freeway on ramp. See map Exhibit A - Attachment II
2. Accessibility:
3. Status: Idle deserted
4. Total Depth: 6540' Effective Depth: 5964' Elevation of Kelly Bushing (KB) above sea level: 60'
5. Casing: 13-3/8" 45.97# casing cemented 765' with estimated top cement behind pipe at 844'/-; 8-5/8" 36# casing cemented 3866' with estimated top of cement behind pipe at 2865'/-; drilled thru 3139'; 5-1/2" 15.5# Id 3043' - 5964', sp 4393, estimated top of cement behind pipe at 3043, perforated from 4458' to 5827'.
6. Tubing: Unknown  Rods: Unknown
7. Base of Fresh Water (BFW): 2280'
8. Producing Zone(s): Alamitos
9. Hole Fluid: Unknown
10. Junk: Unknown
11. Plugs: 6540' to 5964'.
12. Comments: Top of Brown zone 4680', top of Alamitos zone 3875', top of Wilbur zone 3000', and top of Upper Gas zone 2400'.

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.
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.

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 6540’.

10. Run in scraper. Scrape the 8 5/8” and the 5 3/8” casings.

11. Run in hole with tubing (if tag high, clean out fill to 6540’).

12. The well shall be plugged with cement from 6540’ to 4193’

13. The well shall be plugged with cement from 3875’ to 3675’.

14. The well shall be plugged with cement from 3043’ to 2800’

15. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.

16. The 8-5/8” casing shall be perforated from 2440 to 2450’. Get an injection rate or a breakdown.

17. Sufficient cement shall be squeezed into the perforations to fill to 2190’ outside the 8-5/8” casing.

18. The well shall be plugged with cement from 2450’ to 2190’.

19. The 8-5/8” casing shall be perforated from 210 to 200’. Get an injection rate or a breakdown.

20. Sufficient cement shall be squeezed into the perforations to fill to surface.

21. The well shall be plugged with cement from 210’ to surface.

22. The 13-3/8” X 17” annulus shall be plug with cement from 84’ to surface.

23. All casing must be removed from between 5’ and 10’ below ground level.

24. 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.

25. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

26. 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.
27. 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.

28. 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.
STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REVISED

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 18, 2012
Operator: C.R.G. Properties, Ltd. (C0250)

BY
Tim Kustic
STATE OIL AND GAS SUPERVISOR

ORDER NO. 1032
Order to Plug and Abandon Wells & Restore Lease Conditions
# REPORT OF PROPERTY AND WELL TRANSFER

**Field or County:** Long Beach  
**Former owner:** Pacific Energy Res.  
**District:** District 1 (Cypress, California)  
**Date:** July 26, 2000

<table>
<thead>
<tr>
<th>Well Name</th>
<th>API Number</th>
<th>Section Township Range</th>
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<tbody>
<tr>
<td>&quot;Nwibu&quot; 5-2</td>
<td>037-00397</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-3</td>
<td>037-09796</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 5-4</td>
<td>037-09797</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td><strong>&quot;Nwibu&quot; 8-3</strong></td>
<td><strong>037-06496</strong></td>
<td><strong>Sec. 13-4S-13W</strong></td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 8-4</td>
<td>037-06415</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 8-7</td>
<td>037-22512</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-2</td>
<td>037-13525</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-3</td>
<td>037-09791</td>
<td>Sec. 13-4S-13W</td>
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<tr>
<td>&quot;Nwibu&quot; 9-4</td>
<td>037-00392</td>
<td>Sec. 13-4S-13W</td>
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<tr>
<td>&quot;Nwibu&quot; 9-5</td>
<td>037-00142</td>
<td>Sec. 13-4S-13W</td>
</tr>
<tr>
<td>&quot;Nwibu&quot; 9-6</td>
<td>037-00393</td>
<td>Sec. 13-4S-13W</td>
</tr>
</tbody>
</table>

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

See above

**Date of transfer:** May 9, 2000  
**New owner:** C.R.G. Properties, Ltd. C0250  
**Type of organization:** Corp./Ltd.

**Address:** 15332 Antioch Street, Suite 338  
**Telephone:** (310) 808-9071  
**Pacific Palisades, CA 90272**

**Reported by:** OG34A received 6/2/2000 signed by both parties  
**Confirmed by:** Same as above

**New operator new status:** PA  
**Designation of Agent:** Mark Pender

**Old operator new status:** PA  
**Remarks:** See operator file for C.R.G. Properties, Ltd. for details

---

**OPERATOR STATUS ABBREVIATIONS**

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

**cc:** Update; Envir Dsk; File
Conservation Committee
Harold W. Bertholf, Inc.
LA County Assessor
Sacramento EDP
Cypress EDP

---

**FORM AND RECORD CHECK LIST**

<table>
<thead>
<tr>
<th>Form or Record</th>
<th>Initials</th>
<th>Date</th>
<th>Form or Record</th>
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<td>Operator Card</td>
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<td>Production Repts</td>
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</tr>
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---

**Deputy Supervisor:** R. K. Baker  
**Signature:** Floyd M. Leeson  
**Operations Engineer:**
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBW WELL TO PACIFIC ENERGY
SEE OGD156 DATED 5-13-94
# 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.

**New owner**: Petro Resources, Inc.

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

<table>
<thead>
<tr>
<th>Well</th>
<th>Sec.</th>
<th>NWLU</th>
<th>Date 1</th>
<th>NWLU</th>
<th>Date 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWLU 5-1 (037-09795)</td>
<td>Sec. 13-4S-13W S.B.B.&amp;M.</td>
<td>NWLU 8-1 (037-09792)</td>
<td>NWLU 9-3 (037-09791)</td>
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</tr>
<tr>
<td>NWLU 5-2 (037-00397)</td>
<td>NWLU 8-2 (037-09793)</td>
<td>NWLU 9-4 (037-00392)</td>
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</tr>
<tr>
<td>NWLU 5-3 (037-09796)</td>
<td>NWLU 8-3 (037-06496)</td>
<td>NWLU 9-5 (037-00142)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NWLU 5-4 (037-09797)</td>
<td>NWLU 8-4 (037-06415)</td>
<td>NWLU 9-6 (037-00393)</td>
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<tr>
<td>NWLU 6-1 (037-09788)</td>
<td>NWLU 8-7 (037-22512)</td>
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<tr>
<td>NWLU 6-2 (037-09789)</td>
<td>NWLU 9-2 (037-13525)</td>
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**Description of the land upon which the well(s) is (are) located**

<table>
<thead>
<tr>
<th>Date</th>
<th>Address</th>
<th>Telephone No.</th>
</tr>
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<tbody>
<tr>
<td>May 1, 1983</td>
<td>4200 Easton Drive, Suite 16 Bakersfield, CA 94309</td>
<td>805/323-4118</td>
</tr>
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</table>

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

| PA | Joe D. Rose, same address. |

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

| PA |

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

**Type of organization**: Corp.

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

**Confirmed by**: Letter from Petro Resources, Inc., dated 5-18-83

**Deputy Supervisor**: V. F. Gaede

**Signature**: [Signature]

## 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>CP</td>
<td>1-1-83</td>
<td>Map and book</td>
<td>137 V</td>
<td>71/12/83</td>
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<td>Form OGD140</td>
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<td>1-1-83</td>
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<td>CP</td>
<td>1-1-83</td>
<td>Update</td>
<td>Conservation Committee</td>
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<td>L. A. Assessors</td>
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<td>Production reports</td>
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</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.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 (se)</td>
<td>NWLB 8-1</td>
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<tr>
<td>&quot;&quot; 2</td>
<td>037-09793</td>
<td>NWLB 8-2</td>
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<tr>
<td>&quot;&quot; 3</td>
<td>037-06496</td>
<td>NWLB 8-3</td>
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<td>&quot;&quot; 4</td>
<td>037-06415</td>
<td>NWLB 8-4</td>
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<tr>
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<td>&quot;&quot; 2</td>
<td>037-00397</td>
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<td>&quot;&quot; 2</td>
<td>037-09789</td>
<td>NWLB 6-2</td>
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<tr>
<td>&quot;Flood Control&quot; 2</td>
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<td>NWLB 9-2</td>
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<tr>
<td>&quot;&quot; 3</td>
<td>037-09791</td>
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<td>037-00142</td>
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<tr>
<td>&quot;&quot; 6</td>
<td>037-00393</td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

RNS: sc  

cc: Update Center  
EDP  
Conservation Committee  

M. G. Mefferd  
JOHN B. MATTHEWS, JR.  
State Oil and Gas Supervisor  

By R. A. Ybarra  
Acting Deputy Supervisor
**REPORT OF PROPERTY AND WELL TRANSFER**

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

<table>
<thead>
<tr>
<th>General Exploration Co.</th>
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<tbody>
<tr>
<td></td>
<td>February 15, 1979</td>
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**Name and location of well(s)**

<table>
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<tr>
<th>Sec. 11-4S-13W</th>
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<tr>
<td>&quot;Dominguez&quot; 2-10</td>
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<tr>
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<tr>
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<td>(037-09792)</td>
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<td>&quot;Oil Operators&quot; 2</td>
<td>&quot;Oil Operators&quot; 2</td>
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<tr>
<td>&quot;Oil Operators&quot; 4</td>
<td>&quot;Pool&quot; 1</td>
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<td>(037-06415)</td>
<td>(037-09795)</td>
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<td>&quot;Pool&quot; 2</td>
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**Description of the land upon which the well(s) is (are) located**

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<th>Sec. 14-4S-13W</th>
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**Date of transfer, sale, assignment, conveyance, or exchange**

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<tr>
<th>Date</th>
<th>New owner</th>
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<tbody>
<tr>
<td>Dec. 1, 1978</td>
<td>Sun Oil Company</td>
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<tr>
<td></td>
<td>23928 Lyons Avenue</td>
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<tr>
<td></td>
<td>Newhall, CA 91321</td>
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**Reported by**

**Confirmed by**

**Former operator**

**New operator**

<table>
<thead>
<tr>
<th>New operator new status (status abbreviation)</th>
<th>Request designation of agent</th>
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<tbody>
<tr>
<td>PA</td>
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</tr>
<tr>
<td>AB</td>
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**OPERATOR STATUS ABBREVIATIONS**

<table>
<thead>
<tr>
<th>NPA = No Potential, Active</th>
<th>Form or record</th>
<th>Initials</th>
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<tr>
<td>P1 = Potential Inactive</td>
<td>Form OGD121</td>
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<tr>
<td>NPI = No Potential, Inactive</td>
<td>Form OGD148</td>
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<td>Ab = Abandoned or No More Acts</td>
<td>New well cards</td>
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<tr>
<td></td>
<td>Well records</td>
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<td>Electric logs</td>
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<tr>
<td></td>
<td>Production reports</td>
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</table>

**FORM AND RECORD CHECK LIST**

- **Form OGD121**: [Mark and date]
- **Form OGD148**: [Name to be transmitted]
- **New well cards**: [Pond roads]
- **Well records**: [EDP filed]
- **Electric logs**: [Submit EDP Update]
- **Production reports**: [Conservation Committee Update Center]
DIVISION OF OIL AND GAS

CHECK RECORDS RECEIVED AND WELL STATUS

Company: GENERAL EXPLORATION
Well No.: "Oil Operators" 3
API No.: 037-06496 Sec. 13, T. 4S, R. 13W, L 13 B&M.
County: LA
Field: LONG BEACH

RECORDS RECEIVED DATE
Well Summary (Form OG100)
History (Form OG103) 5-27-77
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
Abandoned - Gas
Idle - Gas
Abandoned - Gas
Gas-Open to Oil Zone
Water Flood Source
DATE: 4-24-77
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 OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

SECONDARY CHECK LIST

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED
RC

RELEASE BOND
Date Eligible: 5-22-77
(Use date last needed records were received.)

MAP AND MAP BOOK
NC

OGD2 (3-77-GSR1-4M)

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

Operator: GENERAL EXPLORATION CO.  
Field: NORTH LONG BEACH

Well No. OIL OPERATORS 3, Sec. 13, T. 48 S, R. 13W, SB B. & M.

Date 5-3-51, 19.77  
Signed Production Superintendent

Address: 4021 N. PACIFIC  
LONG BEACH  
Telephone Number: Title 213-636-1629

Date

4-16-77  
Rigged up well servicing unit. Pulled rods & tubing. Ran bailer and tagged fill at 5870'. Installed BOP.

4-17-77  
Ran Baker scraper and brushes in hole. Tested tubing to 5000 psi.  
Rigged up Dresser Atlas. Ran correlation log and perforated 2 hpf as follows: 4740' - 4765'; 4775' - 4707'; 4792' - 4810'.

4-18-77  
Ran scraper through new perfs. Ran wash tool with retrievomatic packer to top of liner.

4-19-77  
Washed perfs with acid mixture  
A. 10 gal/ft 15% BJ One shot (15% solvent)  
B. 15 gal/ft 12-3 4GL-HF One shot (10% Solvent)  
C. 10 gal/ft #1 Diesel Fuel containing 10% EGMBE Mutual Solvent

4-20-77  
Continued washing perfs. Surged perfs with wash tool, pulled out, ran in hole with suction washer.

4-21-77  
Suction washed perfs. Ran bailer, tagged fill at 5849!

4-22-77  
Ran tubing and rods. Put well on production.

4-23-77  
Well did not pump up.

4-24-77  
Pulled rods and pump. Barrel unscrewed, ran new pump. Put well back on production.

32.2 BOPD 25.7 BWPD 45.1% CUT
History of Oil or Gas Well

Operator: GENERAL EXPLORATION CO.  Field: NORTH LONG BEACH

Well No.: OIL OPERATORS #3, Sec. 13, T. 4S, R. 13W, SB B. & M.

Date: 5-25, 1977  Signed: Robert Steele

4021 N. PACIFIC  213-636-1629  Title: Production Superintendent
(Address)  LONG BEACH  (Telephone Number)  (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 plugs, perforation details, sidetracked junk, bailing tests and initial production data.

DATE

OIL OPERATORS 3 CONTINUED

Well condition at completion of work:

TD 1st hole; 5450'; TD 2nd hole 5853' (redrilled from 3142'
through 8 5/8" casing window 3139' - 3174'); TD 3rd hole,
6540' (redrilled from cement plug 5094')

Casing Detail:
13-3/8" C 765'
8-5/8" C 3139'
5-1/2" C 5964', top 3043' (lap w/o), CP 4393'

Perfs 4394-95 wsd
4407'-4444'; 4458' - 4498'; 4563' - 4616';
4740'-4765'; 4775' - 4787'; 4792' - 4810';
5397'-5430'; 5692' - 5707'; 5711' - 5728';
5733'-5752'; 5794' - 5808'; 5812' - 5827'

DATE
Mr. R. L. Graves, Agent  
GENERAL EXPLORATION CO.  
4021 N. Pacific Place  
Long Beach, CA 90806  

Long Beach, Calif.  
June 17, 1976

Dear Sir:

Your proposal to rework Well No. "Oil Operators" 3, Section 13, T. 48, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County, dated 4/15/76, received 6/15/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment with a minimum 2000 psi working pressure shall be installed and maintained in operating condition during all stages of perforating.

2. Well records, under Sec. 3215 of the Public Resources Code, are received 60 days after recompletion of the well.

RFC:dr

Blanket Bond

5/25/77
Graves/Crowder
Work done since history will be filed

HAROLD W. BERTHOLF,  
State Oil and Gas Supervisor  

By M.B. Allwright, Deputy
Long Beach, California May 4, 1976

Mr. Robert L. Graves, Agent
General Exploration Co.
4021 N. Pacific Place
Long Beach, CA 90806

Gentlemen:

Dear Sir:

I have received your notices dated April 15, 1976, of

notice of intention to rework Well No 3, "Pool" 2 & "Oil Operators" 3


Your notices to rework cannot be considered until a surety bond in the sum of $5,000.00 has been filed for each well. Operations should not be started until the approval of this Division has been received. This will ensure that you have notice of our requirements.

The notices are being returned to you for signatures. Please return these signed notices with the bond.

HAROLD W. BERTHOLF
State Oil and Gas Supervisor

By J. B. Crockett
Deputy Supervisor

Enc.
(2nd request 6-3-76)

OG113 (12-73-GSR1-IM)
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Long Beach-Calif. April 15 1976

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. "Ol1 Operadoras" 3

Lease: Sec. 13, T. 4S, 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: 6540' PBTD = 5964'

2. Complete casing record, including plugs:
   - 13 3/8" c 765'
   - 8 5/8" c 3139' (Milled for Window)
   - 5 1/2", 15.5# J-55 c 3043 to 5944'
   - Perfs: 4394-95 (wso); 4407-4444'; 4458-4498'; 4562-4616';
   - 5397-5430'; 5692-5707'; 5711-5728'; 5733-5782';
   - 5794-5808'; 5812-5827'

3. Last produced: 4/15/76 (Date)
   - Oil: 9.2 (Oil, B/D)
   - Water: 14.9 (Water, B/D)
   - Gas: (Gas, Mcf/D)

The proposed work is as follows:

1. Pull Pump Rods & Tubing
2. Perforate following intervals:
   - 4740'-4765'
   - 4775'-4787'
   - 4792'-4810'
3. Return well to production

Remarks:

[Space for Remarks]

4881 Pacific Place, Long Beach
813-434-8025

(Address) (Telephone No.)

General Exploration Co

(Name of Operator)

By Robert S. Reine

[Signature]
WORK PERFORMED:
Drill____ Redrill____ Deepen____
Plug____ Alter casing $$
Water flood____ Water disposal____
Abandon____
Other________________

STATUS: (Date)
Producing________________
Recomp. prod. $$ 6-13-68
Water flood________________
Water disposal________________
Abandoned________________
Other________________
MAP AND BOOK NC

RECORDS FILED & DATE: Clerk____
Summary (dup.)________________
Log & Core (dup.)________________
History (dup.) 7/3/68
E-log________________
Radio log________________
D. Survey________________
Other________________
(Check records for signature and correct name of operator or well, S.T.R. and field.)
Location____ Notice states________________
________________
________________
________________
Production Reports________________
________________
(If production reports not received, make notation and inform Sr. Steno. when rec'd.)
If stimulation or disposal well:
Form 121____ Folder____

Form 19-A

RECORDS & REQUIREMENTS CHECKED: Eng.____

Surface inspection________________
Data needed ______ Now ______ Clerk:
Request records________________
Correct records (Specify) F 165________________

CARDS N.C

BOND: No Bond required
Hold__ Reason________________
Release__ Date elig.______ F 150b
End premium year________________
Release requested (Check)
Bond superseded (one)
Well abandoned________________

FINAL LETTER__________________ F 159
and
FILE CLEARED__________________ F 121
History of Oil or Gas Well

Operator: General Exploration Co. of Calif.  Field: Long Beach

Well No. "Oil Operators" 3  Sec. 13, T. 4S, R. 13W, SB B. & M.

Date: July 2, 1968  Signed: R. S. Ballantyne, Jr.

417 S. Hill Street  Los Angeles, 90013  628-2156

Title: Vice President

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

4/30 Pumped 34 bbl. net 24.3° oil and 2 bbl. water with 60 Mcf gas.

5/1 Blowed down gas off well. Moved in production unit and pulled rods and tubing.

5/2 Ran bailer and found fill at 4875'. Bailed sticky mud to 5890'. Installed B.O.P.E.

5/3 With bailer found fluid level at 3030' and bottom at 5890'. Pumped 100 bbl. salt water into casing - equivalent to 1700' inside the 8-5/8" casing. McCullough jet perforated (omega jets) three holes per foot 5827-5812' and 5808-5794' sticking the second gun. While working gun loose, fluid surfaced and pressure built up to 900# on lubricator before recovering gun. Closed off preventor, removed lubricator and tubing stripper, and installed blank flange on top of preventor. Installed needle bean in flow line from 2" outlet in casing head. Flowed 27 net bbl. oil in 19 hrs. on 14/64" bean, 640 Mcfd. 860#.

5/4-6/9 840 Mcf, 770#, 15/64", Laid down tubing and rods. Moved out pulling unit.

6/10-11 Well flowed gas with occasional slugs of oil which increased in volume as the pressure declined. The well was practically dead 6/9 and salt water was pumped into the well. During the interval from 5/2 to 6/9 the well produced 235 net bbl. of 25.0° oil and 17,000 Mcf. gas. There was no appreciable cut.

6/16-13 Pumped salt water into well at intervals. Well dead.

6/12-13 Moved in production unit. Rigged up bailing gate above B.O.P.E. Continued pumping water into casing as required to keep hole nearly full throughout this operation. Ran bailer and located fill at 5885'. Rigged up lubricator and McCullough reperforated two holes per foot: 5752-5733', 5728-5712' and 5707-5692', and perforated three holes per foot: 5430-5397'. Omega jets in 4" steel carrier were used throughout. Ran pump on 2-7/8" tubing to 4312' with gas anchor extending to 4348'. Ran rods. Moved out unit.

6/13 Well pumped water and 50 bbl. oil in 16 hrs with casing pressure building to 90#.

6/17 Pumped 29 bbl. oil and 26 bbl. water, 20#/300-540#.

6/22 Pumped 11 bbl. oil and 8 bbl. water, 20#/120-130#, 315 Mcf.


WELL CONDITION AT COMPLETION OF WORK:

TD 1st hole 5450', TD 2nd hole 5833' (redrilled from 3142' through 8-5/8" casing window 3139-3174'), TD 3rd hole 6540' (redrilled from cem. plug 5094').

CASING CONDITION:

13-3/8" C 765'  
8-5/8" C 3139'  
5-1/2" C 5964', top 3043' (lap WSO), CP 4393'. Perfs. 4393-4394' (WSO), 4407-4444', 4458-4498', 4562-4616', 5397-5430', 5692-5707', 5711-5728'.
History of Oil or Gas Well

Operator: General Exploration Co. of Cal.  Field: Long Beach

Well No. "Oil Operators" 3  Sec. 13  T. 4S  R. 13W  SB  B & M.

Date: July 2, 1968  Signed: R. S. Ballantyne, Jr.

417 S. Hill Street  Los Angeles, 90013  628-2156

Title: Vice President  (Address)  (Telephone Number)  (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, slicking of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date

5733-5752', 5794-5808' and 5812-5827'. Plug 5964-5922' w/cem. and 5922-5890' w/sand.

Sidetracked:
8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
5-1/2" C 5446', top 3928' (lap WSO). Bad 4195 and 5107', pldg.
   Perf. & pldg. 4080-4158', 4190-4205', 4852-4950', 5140-5180',
   5190-5200' and 5306-5355'. Plug 3928'.

DEPARTMENT OF OIL AND GAS
RECEIVED
JUL 3 1968
HOLLYWOOD, CALIFORNIA
Mr. C. G. Willis  
417 So. Hill Street  
Inglewood, Calif.  
Los Angeles, California 90013  
April 30, 1968

Agent for  
GENERAL EXPLORATION COMPANY OF CALIFORNIA  

Dear Mr. Willis:

Your proposal to alter casing Well No. 037-06496 "Oil Operators" 3, Section 13, T. 4 S, R. 13 W S.B. & M. Long Beach Los Angeles County, dated Apr. 25, 1968, has been examined in conjunction with records filed in this office. The proposal is approved, subject to the conditions shown on the records and the proposal is in addition to, or at variance with, those shown in the notice. 5-1/2" cp 4393', TD 1st hole 5450', TD 2nd hole 5833'.

With reference to your proposal our decision is as follows:

DECISION
THE PROPOSAL IS APPROVED.

WLI: nw

cc Company

No Bond Required

F. E. KASLINE  
E. R. MURRAY-AARON, State Oil and Gas Supervisor  

By

Deputy
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given before work begins; one copy only

Los Angeles, Calif. April 25, 1968

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

altering casing at Well No. "Oil Operators" 3

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. 6540'.

2. Complete casing record, including plugs:

- 13-3/8" C 765'
- 8-5/8" C 3139'

Sidetracked:
- 8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
- 5-1/2" C 5446', top 3928' (lap WSO). Bad 4195 and 5107', plgd.

Perf. & plgd. 4080-4158', 4190-4205', 4852-4950', 5140-5180', 5190-5200' and 5306-5355'. Plug 3928'.

3. Last produced. 4/25/68 34 (Oil, B/D) 2 (Water, B/D) 60 (Gas Mcf/D)

The proposed work is as follows:
1. Take well off production.
2. Starting May 1, 1968, pull rods and tubing.
3. Rig up B.O.P.E. and lubricator and pump 100 bbl. of salt water into casing.
5. Return well to production.

417 S. Hill St., Los Angeles 90013

628-2156

GENERAL EXPLORATION COMPANY OF CALIFORNIA

(Name of Operator)

By R. S. Ballantine, Jr., Vice President

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

FORMS 114 121
WORK PERFORMED:
Drill____ Redrill ✔ Deepen____
Plug____ Alter casing____
Water flood____ Water disposal____
Abandon____
Other____________________

STATUS: (Date)
Producing____________________
Recomp. prod. 7-28-67
Water flood____________________
Water disposal____________________
Abandoned____________________
Other____________________
MAP AND BOOK N/C

RECORDS FILED & DATE: Clerk M.T.
Summary (dup.)____________________
✔ Log & Core (dup.) 8/3/67
✔ History (dup.) 8/3/67
✔ E-log (2 copies) 3138'-6536' 8/3/67
Radio log____________________
D. Survey____________________
Other____________________
(Check records for signature and correct name of operator or well, S.T.R. and field.)
Location____ Notice states____________________
____________________
____________________
____________________
Elevation____ Notice states____________________
____________________
____________________
Production Reports____________________
(If production reports not received, make notation and inform Sr. Steno. when rec'd.)
If stimulation or disposal well:
Form 121____ Folder____

RECORDS & REQUIREMENTS CHECKED: Eng. W

Surface inspection____________________
Data needed now Clerk:
Request records____________________ F 170_
Correct records____________________ (Specify)
F 165
F 165A

CARDS N/C

BOND: No. 1411161 dated 6-27-67
Hold Reason
Release ✔ Date elig. 10-17-67 F 150b AB
End premium year ✔
Release requested (Check)
Bond superseded (one)
Well abandoned

FINAL LETTER________________________________ F 159_
and
FILE CLEARED________________________________ F 121_
History of Oil or Gas Well

Operator: General Exploration Company
Field: Long Beach

Well No.: "Oil Operators" 3, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: July 31, 1967
Signed: R. S. Ballantyne, Jr.

417 South Hill St., Los Angeles 90013
628-2156
Vice President

It is of the greatest importance to have a complete history of the well. Use this form to report all full account of important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bail cutting, shooting and initial production data.

Date: 1967

Move in, rigged up drilling equipment, pulled and laid down tubing, installed B.O.P.E. (Graham Drilling Company).

7/1-2
Ran 7-5/8" bit and made up 3-1/2" drill pipe. Found top of 5-1/2" liner at 3932'.
Ran Servco section mill, located casing collars at 3190', 3145' and 3101', milled section in 8-5/8" casing from 3139' to 3174'. Opened window to 12-3/4", Ran 284' of 2-3/8" tubing stinger on drill pipe. Cleaned out sand inside 5-1/2" liner to 4165'.
Laid 30-sack class G cement plug with 2% CaCl₂ from 4147'. (Estimated top of plug at 3908'). Laid 70-sack class G plus 20% sand with 0.5% CFR-2 from 3233' with rotating tubing scratchers opposite window. Pulled to 2850' and circulated pipe clean. Held 1200# for 5 minutes - no pressure drop. Found top of cement at 3077' and cleaned out to 3142'.

7/3-13
Drilled 7-5/8" hole to 5833'. 5" Dynadrills were used as follows: 3142-3240', 4257-4378' and 4487-4475'. The interval 4468-4487' was cored.

7/13
Ran Schlumberger I.E.S. 5833-3139' and C.D.M. 5833-3700'. Laid 182 CF (160 sacks class G, 30 sacks sand, 5 sacks salt, 0.5% CFR-2) plug through 461' stinger of tubing on drill pipe from 5460'.

7/14
Ran 7-5/8" bit and hit bridge at 4135', cleaned out to 4174' and lost circulation. Pulled up inside 8-5/8" casing to 3123' and regained circulation. Ran to top of cement at 4997' and cleaned out to 5012' without circulation. Pulled up again to 3123' and introduced rubber and fibrous lost circulation material into mud system. Regained circulation and ran to 5012' circulating in stages. Drilled out cement to 5094' with full returns.

7/15-18
Drilled 7-5/8" hole to 6008'. A 5" Dynadrill was used from 5094' to 5147'. Ran Schlumberger I.E.S. 6008-4850'.

7/18-20
Drilled 7-5/8" hole to 6540' (T.D.). Ran Schlumberger I.E.S. 6540-6008'.

7/20
Ran to T.D. and conditioned mud. Ran 76 joints of 5-1/2", 15.5#, J-55 liner with Burns liner hanger (2921', including hanger) on 3-1/2" drill pipe. With liner hanging at 5964', (top at 3043') cemented with 743 C.F. 1:1 class G cement pozmix slurry with 2% gel and 0.5% CFR-2 and 10% salt in mix water. 500 gal. mud flush and 20 C.F. water preceded the slurry. Displaced with 530 CF mud (509 CF estimated) and plug was not observed to hit baffle. Pulled stinger up to 2980' and backscuttled 180 CF (127 CF in drill pipe) without cement returns.

AUG 9, 1967
INGLEWOOD, CALIFORNIA
History of Oil or Gas Well

Operator: General Exploration Company
Field: Long Beach of California
Well No.: "Oil Operators" 3, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M.
Date: July 31, 1967
Signed: R. S. Ballantyne, Jr.

417 South Hill St., Los Angeles 90013
Title: Vice President

Address: 628-2156

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date: 7/21

Ran 7-5/8" bit and 8-5/8" casing scraper. Encountered 10' soft cement bridge at 1000' and drilled out same. Pushed plug to top of hard cement at 2832'. Drilled out cement to top of liner at 3043'. Conditioned mud and held 1380# on casing for 5 minutes. Ran 4-3/4" bit and 5-1/2" casing scraper. Drilled out cement inside liner from 3043' to 3083'. Ran to 5922', top of float collar, pushing something (probably rubber liner wiper plug) ahead the last 1000'. Conditioned mud and held 1530# on casing for 5 minutes.

Date: 7/22

Ran Cook tester on drill pipe and set packer at 3009' with tail to 3022'. Open 1 hour, 2 minute initial light blow and dead thereafter. Recovered net rise of 45' drilling fluid. Lap test approved by D.O.G. Ran McCullough gamma-bond cement log 5910-3900' and perforated four 1/2" jet holes 4394-4393'. Ran Cook tester on 1411' of 2-7/8" tubing below drill pipe. Set packer at 4366' with tail piece to 4377'. Open 1 hour. Medium, slightly diminishing blow throughout test. Recovered 1470' slightly muddy water down to salty (476 g/g) water.

Date: 7/23

Ran Baker shoe squeeze tool on tubing and set packer at 4094' with tail to 4187'. Broke down formation with 3500# and squeezed 33 sacks of 50 sacks class G cement mixed at a final pressure of 3000# through perforations. Found top of cement at 4243' and drilled out cement running out of it at 4425'. Perforated four 1/2" jet holes 4394-4395' with McCullough steel carrier. Ran Cook tester on tubing/drill pipe and set packer at 4366' with tail to 4377'. Open 1 hour-initial 2 minute weak blow and dead thereafter. Recovered a rise of 40' drilling fluid. W.S.O. approved by D.O.G. Ran 4-3/4" bit to 5922' and changed mud over to 67' salt water. Laid down 3-1/2" drill pipe. Ran McCullough 4" jet carrier and perforated four 1/2" jet holes per foot as follows: 5752-5733', 5728-5711' and 5707-5692.

Date: 7/24

Ran Guiberson packer on combination string of 2-7/8" tubing and set with bottom of packer at 4337'. Removed B.O.P.E. and rigged up surface equipment. Swabbed well and when pulling from 2200' the sand line pulled out of socket and swab dropped. Opened valve in packer and equalized fluid. Ran overshoot but could not recover swab. Installed B.O.P.E., pulled and broached tubing. Recovered swab on bottom.

Date: 7/26

Re-ran Guiberson packer as above. Swabbed well working down to 4000'. After swabbing 67 bbl. of water with trace of oil and with well gassing, placed on a 22/64" bean at 9:00 p.m.

Date: 7/27

Rigged up lubricator and McCullough perforated four holes per foot with 2-1/8" JRL Ceram-jets as follows: 4616-4562', 4498-4458' and 4444-4407'. Completed perforating at 10:00 p.m.
History of Oil or Gas Well

Operator: General Exploration Company
Field: Long Beach

Well No. "Oil Operators" 3, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: July 31, 1967
Signed: R. S. Ballantyne, Jr.

417 South Hill St., Los Angeles 90013

Title: Vice President

(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Moved out drilling equipment. Flowed 94 bbl. 25.3° oil, 4.0%., 140#/pkr., 570 Mcf. 103 bbl. 25.2°, 6.5%, 120#/pkr., 555 Mcf.

Casing Record at Completion of Work:
(Depths from present KB of 60') T.D. 6540
13-3/8" C 765'
8-5/8" C 3139'

Sidetracked:
8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
5-1/2" C 5446', top 3928' (lap WSO). Bad 4195 and 5107', plgd.
Perf. & plgd. 4080-4158', 4190-4205', 4852-4950', 5140-5180', 5190-5200' and 5306-5355'. Plug 3928'.
# DIVISION OF OIL AND GAS

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator: General Exploration Company of Calif.  Field: Long Beach

Well No. "Oil Operators" #3 Redrill  Sec. 13, T. 4S, R. 120W, S.B., B. & M.

### FORMATIONS PENETRATED BY WELL

<table>
<thead>
<tr>
<th>Depth To</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of Formation</td>
<td>4468'</td>
<td>4487'</td>
<td>21'</td>
<td></td>
</tr>
<tr>
<td>Bottom of Formation</td>
<td></td>
<td></td>
<td></td>
<td>CORE #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Oil sand, unbroken, firm to soft, mostly fine to medium fine poorly sorted. Locally finely pebbly, light brown with grayish cast on broken surfaces light gold to medium buff fluorescence, pepper and salt on broken surfaces (mud penetration?). In top 0.2' two 1/16&quot; ribbons gray sand at 50-55° under gray spot with pebbles. No fluorescence. Probably related to turbidity bedding. At 4.0', one 1/64&quot; ribbon of non-fluorescent clay at about 40°, could be bedding parting. Dip not reliable. (No samples taken)</td>
</tr>
</tbody>
</table>

**Core #1**

---

**Division of Oil and Gas**

**Received**

**Aug 3 1967**

**Inglewood, California**
Mr. C. G. Willis  
417 S. Hill Street  
Los Angeles, California 90013

Inglewood, Calif.  
July 27, 1967

Agent for: GENERAL EXPLORATION CO. OF CALIF.

Dear Mr. Willis:

Your well No. "Oil Operators" 3 on Long Beach Field, in Los Angeles County, was tested for water shut-off on July 23, 1967. Mr. S. Cordova, Engineer, designated by the supervisor was present from 8:30 p.m. to 9:30 p.m. as prescribed by law; there were also present J. Dedmon, Driller, and Foreman & R. Morgan, Driller.

Shut-off data:
- 5-1/2 in. 15.5 lb. casing was recemented through perforations at 4393 ft.
- Calculated to fill behind casing to ------ ft. below surface.
- Casing record of well: 13-3/8 in. 765'; 8-5/8 in. 3986', window 3139'-3174', sidetracked @ 3142'; 5-1/2 in. 3043'-5964', cp 4393', perf. 4393' WSO. TD 1st hole 5450', 2nd hole 5833'.

Present depth 6540 ft. cmt. bridge 5964 ft. to 5922 ft. Cleaned out cmt. 4243 ft. to 4425 ft. for test.

A Cook tester was run into the hole on 2-7/8 in. tubing, with ----- ft. of water-mud cushion, and packer set at 4366 ft. with tailpiece to 4377 ft. Tester valve, with 5/8 in. bean, was open for 1 hr. and ------ min. During this interval there was a weak blow for 2 minutes & no blow thereafter.

Mr. S. Cordova, Engineer, was present at the well on July 22, 1967 and Mr. L. Stander reported that the 5-1/2" casing was jet-perforated with four, 1/2" holes at 4393' for the water shut-off test. THE ENGINEER NOTED THAT when the tubing was removed, 1470' of watery drilling fluid and salt water was found above the tester.

Mr. S. Cordova, Engineer, was present at the well on July 23, 1967 and Mr. Dedmon reported:
1. The 5-1/2" casing was recemented as noted above.
2. The 5-1/2" casing was jet-perforated with four, 1/2" holes at 4393'.

THE ENGINEER NOTED:
1. When the tubing was removed, 40' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE 5-1/2" SHUT-OFF AT 4393' IS APPROVED.

SC: nw

cc Company

E. R. Murray-Aaron  
State Oil and Gas Supervisor

By [Signature]
Deputy
Mr. C. G. Willis  
417 S. Hill Street  
Los Angeles, California 90013

Inglewood, Calif.  
July 27, 1967

Agent for  
GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

Operations at well No. "Oil Operators" 3, Sec. 13, T. 4 S, R. 13 W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on July 22, 1967. Mr. S. Cordova, Engineer, representative of the supervisor was present from 7:30 a.m. to 8:20 a.m. There were also present R. Ballantyne, Engineer & J. Dedmon, Drilling Foreman.

Present condition of well: 13-3/8" cam. 765'; 8-5/8" cam. 3986'; window 3139'-3174', side-tracked @ 3142'; 5-1/2" cam. 3043'-5964'. TD 6340'. TD 1st hole 5450'. TD 2nd hole 5833'.

The operations were performed for the purpose of demonstrating the effectiveness of the seal between the 8-5/8" and 5-1/2" casings.

Mr. Ballantyne reported:
1. A window was milled in the 8-5/8" casing from 3139' to 3174', and the hole was opened to 12-3/4" in that interval.
2. Sand fill was cleaned out of the 5-1/2" casing to 4165'.
3. On July 2, 1967, 30 sacks of cement was pumped into the hole through drill pipe and tubing hanging at 4147', calculated to fill to 3908'.
4. On July 2, 1967, 70 sacks of cement mixed with 20% sand was pumped into the hole through drill pipe and tubing hanging at 3233'.
5. Cement was drilled out of the hole from 3077' to 3142'.
6. A 7-5/8" hole was redrilled from 3142' to 5833'.
7. On July 13, 1967, 160 sacks of cement mixed with 20% sand was pumped into the hole through drill pipe and tubing hanging at 5460'.
8. Cement was drilled out of the hole from 4997' to 5094'.
9. A 7-5/8" hole was redrilled from 5094' to 6540'.
10. On July 20, 1967, 5-1/2", 15.5 lb. casing was cemented from 3043' to 5964' with 743 cubic feet of cement slurry (1:1 pozmix, 22 gel).
11. Cement was drilled out of the 8-5/8" casing to 3043' and the 5-1/2" casing was cleaned out to 5922'.
12. A Cook tester was run into the hole on 3-1/2" drill pipe and packer set at 3009', with tailpiece to 3020'.
13. The tester valve with 5/8" beam was open for 1 hr. During this interval there was a weak blow for 2 minutes and no blow thereafter.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 45' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED and indicate that no fluid has access to the well from the annulus between the 8-5/8" and 5-1/2" casings.

E. R. MURRAY-AARON  
State Oil and Gas Supervisor

By [Signature] Deputy
Mr. C. G. Willis
417 S. Hill Street
Los Angeles, California 90013

Inglewood, Calif.
July 5, 1967

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

Your proposal to redrill Well No. "Oil Operators" 3, Section 13, T. 4 S., R. 13 W., S.E. B. & M., Long Beach Field, Los Angeles County, dated June 27, 1967 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 present condition of the well is as follows:
1. Total depth. 5450
2. Complete casing record, including plugs:
   13-3/8" C 765', 8-5/8" C 3986' WSO
   top 3928', WSO on splice. Bad 4195 & 5107', plgd.
   perf. & plgd. 4190-4205', 4852-4950', 5140-5180',
   5190-5200', 5306-5355'.
   Plug 4159'. Perf. 4080-4158'.
3. Last produced. 12/12/66 (Date) 10 (Oil, B/D) 182 (Water, B/D) " (Gas)

PROPOSAL
"The proposed work is as follows:
1. Move in drilling equipment, pull tubing, install BOPE and fill hole with mud.
2. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to
   12-3/4" lay cement plug from 4150' to 3900' (sufficient to cover perforations
   without having to wait and feel for top) and another plug from 100' below section
   back above top of window and level off plug 2' into section.
3. Sidetrack cased hole through section and drill 7-5/8" hole to approximately 5900'.
4. Run and cement 5-1/2" liner, effect. W.S.O. at lap of 8-5/8" casing and above pro-
   ductive horizon.
5. Complete well."

DECISION
THE PROPOSAL IS APPROVED PROVIDED:
1. Fluid consistent with good drilling practice shall be used, and the column of fluid
   maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating
   condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test, after cleaning out below the top of the liner to demonstrate that no
      fluid has access to the well from the annulus between the 8-5/8" and 5-1/2"
      casings.
   b. A test of the effectiveness of the 5-1/2" shut-off above the zone to be pro-
      duced.

WLI: n/a
cc Company

Bond No. 1411161
Dated 6-27-67

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By: [Signature], Deputy
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Los Angeles, Calif. June 27, 1967

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" 3

(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. 5450

2. Complete casing record, including plugs:

13-3/8" C 765'
8-5/8" C 3986' WSO
5-1/2" C 5446', top 3928', WSO on splice. Bad 4195 & 5107', plgd.
Perf. & plgd. 4190-4205', 4852-4950', 5140-5180',
5190-5200', 5306-5355'.
Plug 4159'. Perf. 4080-4158'.

3. Last produced. 12/12/66 (Date) 10 (Oil, B/D) 182 (Water, B/D) - (Gas)

The proposed work is as follows:

1. Move in drilling equipment, pull tubing, install BOPE and fill hole with mud.
2. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to 12-3/4" lay cement plug from 4150' to 3900' (sufficient to cover perforations without having to wait and feel for top) and another plug from 100' below section back above top of window and level off plug 2' into section.
3. Sidetrack cased hole through section and drill 7-5/8" hole to approximately 5900'.
4. Run and cement liner, effect W.S.O. at lap of 8-5/8" casing and above productive horizon. 5/4"
5. Complete well.

417 S. Hill Street, Los Angeles

628-2156

GENERAL EXPLORATION COMPANY OF CALIFORNIA

(Name of Operator)

By E. S. Ballantyne, Vice President

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

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., C. S. & H.
District: 1
Date: January 17, 1961

List of Wells: 
"Oil Operators" 1, "Oil Operators" 2, "Oil Operators" 3 and "Oil Operators" 4. ("Oil Operators" 1, 1610; other wells are active)

Date of Transfer: January 1, 1961
New Owner: General Exploration Co. of California
Address: 730 Subway Terminal Building, 417 South Hill Street, Los Angeles 15, Calif.
Telephone No.
Type of Organization: Corporation
Reported by: J. E. H. Missouri
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)
New Operator New Status: PA, Old Operator Status: PA
Request designation of agent: No

Remarks:

CB
SS-- Mr. B. H. Fussler
Prod. Dept.
Conservation Committee

[Signature]

Deputy Supervisor

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<td>Form 148</td>
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LEGEND
PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells
NoRm—If Transfer Does Not Change Overall Status Enter "No Change"
Date Received 1-13-60 Form 100 101 103
Elec. Log Radio Log
Direct. Surv. Other Data History
Location
Elevation Clerk
Prod. Repts. Clerk

COMPLETED PRODUCING ON 12-0-59
ABANDONED ON

BOND Release Date Elig. 150b
End Prem. year Release Requested Superseded

Aband. Redrill
HOLD BOND Reason

Data Needed Alter Csg.

Final Letter Eng. Abandon
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<tbody>
<tr>
<td>5450'</td>
<td>Plbg 4985'</td>
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</table>

- **Remarks:**
  - **CHASE:** BR-AFE 59359 Job 540
  - **PROPOSED WORK:** Add perforations in the Alumitos Zone.
  - **PRODUCTION BEFORE WORK:** Idle
  - **ZERO POINT FOR THIS JOB:** 9.1' above concrete pad.

**Casing Record at Start of Work:**
- TD 4076': Dpnd 5450': Plbg 4985'
- 13-3/8" C 765' 8-5/8" C 3965' WSO
- 111' 6-5/8" k-4075' inc-391'-phs. Fulled.
- 1518' 5-1/2" F & C 5446'. Bad 4195 & 5107'.
- WSO test on splice OK.
- Bullet pt 4190-4205, 4252-4950'.
- 8 plgd 5120-5260-5190-5230, 5306-5351'.

- **Casing Record at Completion of Work:**
  - TD 4076': Dpnd 5450': Plbg 4159'
  - 13-3/8" C 765' 8-5/8" C 3965' WSO
  - 111' 6-5/8" k-4075' inc-391'-phs. Fulled.
  - 1518' 5-1/2" F & C 5446'. Bad 4195 & 5107'.
  - Plbg 380 test on splice OK.
  - Bullet pl & plgd 4190-4205, 4352-4550'.
  - 5120-5260-5190-5230, 5306-5351'.
  - Bullet pt 4080-4158'.

- Contractor moved in and rigged up. Pulled rods and pump. Dia-Loyed tubing.
- Pulled tubing. Strung in with 2-5/8" Cavins sand pump to 4201'. Top of fill.
- 4-5/8" impression block stopped at 3927'. 4-1/2" block stopped at 3927'. 3-3/4" block stopped at 3927'. Ran in with 2-5/8" Cavins sand pump, went to 4201'. Fluid level at 500'.
- Ran in with 1-7/8" x 4-1/8" x 2.59' Haas-koss tapered mill on 3-1/2" bumper sub on 2-1/2" tubing on 3" tubing. Ran in to top of liner at 3927'. Pipe did not appear to be bad. Ran in to 4186' where mill stopped. Pulled back up to top of liner and worked mill through liner hanger repeatedly. Pulled out. Ran L-W Cemoton and Chlorinilog.
- Finished running L-W Cemoton and Chlorinilog.
- Crew off.
- Ran in with 7½' impression block to top of liner at 3923'. No impression. Kewan impression block to top of liner. Balanced sand and shale at 4201' with 2-5/8" Cavins sand pump. Boilier sticking badly at 4201'. Recovered small loads. Bright spot on bottom of boiler indicates possible tight pipe. Dumped 15' sacks construction cement at 4201' at 2:30 p.m. Felt for cement at 5:30 p.m. Top of cement at 4200'.
**REPAIR REPORT**

*History of Oil Operators #3, Long Beach, Los Angeles*

**REMARKS**

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<td>'H'</td>
<td>'H' 4159</td>
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**Ran in with Cavins off bottom cement dump bailer and dumped 2 sacks construction cement at 4200’ at 9:30 a.m. Felt for top of cement with bailer jars at 12:30 p.m. No fill. Dumped 2 sacks construction cement at 4200’ at 1:30 p.m. Felt for top of cement at 4:30 p.m. No fill. Dumped 2 sacks of construction cement at 4200’ at 5:45 p.m.**

**Ran in with jars and found top of cement at 4200’. Mixed 4 sacks of construction cement and dumped in 2 runs at 4200’. Finished dumping cement at 9:00 a.m. Felt for plug at 12:30 noon. Located top of plug at 4174’. Rigg and planned to shoot.**

**Perforated 5-1/2” liner from 4159-4080’ with two 1/2” bullets per foot. Used L-W 4” x 50 shot wire line gun. Checked collars and reset odometer according to collars. Located top of plug at 4159’. Fluid level stayed at 540’ during shooting job. No blow. All guns came from hole covered with oil. Had 2 scattered misfires. Checked bottom at 4159’ after shooting. Removed blow-out preventer. Ran in and landed tubing. Ran rods. Put well on production. Contractor moved out.**

**PRODUCTION DATA**

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**1020’ Fluid over pump by Sonics.**

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

*California Production Service - Contractor*

**VAUGHN S. MOYER**

**DISTRICT ENGINEER**
completed producing on 12-10-59

abandoned on

Cordova/Ballantyne 7-2-67
solid sand at 4000'.
O.K. to P/C 4000'-3878', using 100%
excess per conversation with Ingram
on 6-29-67.

Ballantyne/Ingram 6-29-67
will use 100% excess on zone plug
in lieu of feeling for tip - o.k. w.r.
Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 3,

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

dated Oct. 19, 1959, received Oct. 21, 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.
Plugged with cement 5446'-5428' and 5101-4984'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth, 4076' Dpnd 5450' Plug 4985'.
2. Complete casing record.
   13-3/8" C 765'
   8-5/8" C 3986' W80
   716-7-5/8" H 4075' inner -89'-pfs, pulled,
   1518'-5-1/2" F & C 5446'. Bad 4195' & 5107'.
   W30 test on splice OK.
   Bullet pf. 4190-4205' & 4852-4950'.
   Bullet pf. & plgd. 5140-5199'-5190-5209'-5306-5395'.
3. Last produced. April 1958 2 B/D (Net Oil) 23.7° (Gravity) 98.0% (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing.
2. Check hole open to top of plug at 4985'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" liner from 4080-4185' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 4985'.
6. Run rods and tubing.
7. Test on production."

DECISION
THE PROPOSAL IS APPROVED.

E. H. MUSSER, State Oil and Gas Supervisor

By  Wm. C. Bailey, Deputy

9645 South Santa Fe Springs Rd.
Santa Fe Springs, California
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Santa Fe Springs, Calif. October 19, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging, etc., of the casing at Well No. 13T, Sec. 13, T., 4-S, R. 12-W, S.B. B. & M. Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 4076', Dpnd 5450', Fug 4985'

2. Complete casing record.
   - 13-3/8" C 765'
   - 8-5/8" C 3986' WSO
   - 1161.6-5/8" H 4095' incl. 891.5 f., pulled.
   - 1518' 5-1/2" F & C 5446'. Bad 4195' & 5107'.
   - WSO tested on splice OK.
   - Bullet pf. 4190-4205' & 4852-4950'.
   - Bullet pf. & plgd. 5140-5180', 5190-5200', 5306-5355'.

3. Last produced. April 1958 2 R/D 23.7° 98.0%
   - (Date) (Net Oil) (Gravity) (Curt)

The proposed work is as follows:

1. Pull rods and tubing.
2. Check hole open to top of plug at 4985'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" liner from 4080-4185' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 4985'.
6. Run rods and tubing.
7. Test on production.

Union Oil Company of California

(Name of Operator)

By. V.S. Moyer, Division Engineer

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

**Union Oil Company**  
**History of Oil or Gas Well**  
**Oil Operators #3**  
**Long Beach**  
**Los Angeles**  

### General Information
- **Produced Hoist - Contract**
- **July 8, 1953**

### Chargé
- **B.E. - A.F.E. 51528**  
- **Job 25130**

### Proposed Work
- **Cement off bottom perforations with plug from 5107' to 5000'**. Test on production. If upper perforations not causing sand, gun perforate 5-1/2" casing from 4950' to 4852' with four 1-1/2" holes/ft.

### Production Before Repair
- **57 B/D Gross - 14 B/D Net - 75.0% Cut**

### Zero Point for this job
- **9' 1" above concrete pad.**

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### Casings Engaged at Start of Work:
- **4'-8" DIA 5 1/2"**
- **13-3/8" API 4 7/8"**
- **8-1/2" API 3 7/8"**
- **7 5/8" API 2 3/8"**
- **6 5/8" API 1 3/8"**
- **5 7/8" API 1 1/8"**
- **4 7/8" API 1/2"**

### Casings Engaged at Completion of Work:
- **4'-8" DIA 5 1/2"**
- **13-3/8" API 4 7/8"**
- **8-1/2" API 3 7/8"**
- **7 5/8" API 2 3/8"**
- **6 5/8" API 1 3/8"**
- **5 7/8" API 1 1/8"**
- **4 7/8" API 1/2"**

### California Production Service, Contractors moved in and set up equipment. Tested tubing - OK. Pulled tubing and rods. Tubing measured 4179.72'. Ran 2-5/8" Cavins bailer. Checked fill at 4938'. Fluid level at 3605'. Cleaned out to 4955'.

### Continued cleaning out sand to 4938'. Installed Shaffer blow-out preventer. Ran in with Lane-Wells 11" x 11" type A-2 bullet gun, shot four 1" holes/foot from 4950' to 4852'. Had light blow and rapid fluid rise. Fluid level at start of shooting 3425'; fluid level at finish 3220'.

### Bled off 31/2 casing pressure. Ran 2-5/8" Cavins sand pump. Checked fill at 4963'. Fluid level at 3170'. Cleaned out to 4985'. Ran in and landed 4788' of mixed 2-1/2" and 3" tubing. Ran rods and pump. Contractor moved out July 8, 1953. Well on production at 5:30 P.M.
<table>
<thead>
<tr>
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<td>Flm h985</td>
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<tr>
<td></td>
<td>7-16</td>
<td>1</td>
<td></td>
<td>Sanded up</td>
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<td></td>
<td>7-17</td>
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<td>Union Oil production crew pulled rods and tubing.</td>
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<tr>
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<td>7-18</td>
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<td>Cleaned out 1/757-1/757&quot; with 3-1/8&quot; Cavins sand pump.</td>
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<tr>
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<td>1</td>
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<td>Cleaned out 1/757-1/820&quot; with 3-1/8&quot; Cavins sand pump.</td>
</tr>
<tr>
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<td>7-20</td>
<td>1</td>
<td></td>
<td>Cleaned out 1/820-1/985&quot; with 3-1/8&quot; Cavins sand pump. Recovered shale and pieces of iron. Fluid level 3300'. Ran tubing to 1/200'. Cleaned out off bottom with 3-1/8&quot; Cavins sand pump. Ran tubing to 1900'.</td>
</tr>
<tr>
<td>1</td>
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<td>Ran rods. Put well on prod.</td>
</tr>
<tr>
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**Production Data**

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</table>

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

Chas. F. Bowden

District Engineer
Date Received: 7-25-53
Form 100: 101: 103

Elec. Log: Radio Log:
Direct. Surv.: Other Data:
Location:
Elevation: Steno.:

BOND: Release: Date Elig.: 100b

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

HOLD POND: Reason:

Data Needed: 

Final Letter: Eng: Abandon: 7-6-53
Oil Operators #3

Long Beach (FIELD)

Los Angeles (COUNTY)

SEC. 13 T 4-S R 13-W S.B. & M.

REPAIR REPORT

Prod. Moist - Contract (TOOLS)

June 21, 1953

(PERIOD ENDING)

REMARKS

CHARGE: B.R.--A.F.E. 51526 Job 231-D

PROPOSED WORK: Plug back all existing perforations in R, S and T Zones and test well on production.

PRODUCTION BEFORE REPAIR:

ZERO POINT for this Job: 9 1/2".

CASING RECORD AT START OF WORK:

Test: 4946' Bpm 5450' / 13-3/8" C 765'
8-5/8" C 3985' WSO: 3186' 6-5/8" K 4795'
Ann. 3-5" perf, pulled: 1518' 5-1/2".
F & C 5446': Bad 4195' & 5107'

WSO test on splice OK: Bullet pf 4190-
4205', 5140-5160', 5190-5200', 5306-5355'.

California Production Service, Contractor, moved in and installed blow-out preventer. Checked bottom with 2-5/8" Cavins sand pump at 5101'. Fluid level at 810'. Ran in with 7-1/2" impression block. Checked 5-1/2" liner hanger at 3925'. Ran in with 4" impression block - went to 5100' -- no marks.

Ran in with Cavins continuous dump bottom bailer. Dumped 11 sacks of construction cement in 5-1/2" casing, starting at 5101'. Let stand 4 hours. Felt top of plug at 4983'.

Ran in with 2-5/8" Cavins sand pump. Bailed loose cement at 4983' to hard cement at 4985'. Witnessed and approved by Division of Oil and Gas. Started running tubing.

Ran tubing and started running rods.

Finished running rods. Put well on pump. Contractor released.

PRODUCTION DATA

<table>
<thead>
<tr>
<th>Hours</th>
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<th>Cut</th>
<th>Grad</th>
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<tr>
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<td>14</td>
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</tbody>
</table>

AMES OF DRILLERS/HEAD WELL PULLERS:

California Production Service, Contractor.

Chas. F. Bowden

DISTRICT ENGINEER
DEAR SIR:

Operations at your well No. "Oil Operators" 1 Sec. 13, T. 4 S, R. 13 W, S B B & M., Long Beach Field, in Los Angeles County, were witnessed by J. B. Thomas, Inspector, representative of the supervisor, on June 10, 1953. There was also present R. J. Wilson, Driller; Ray Nathan, Helper.

Casing Record: 19-3/8" cem. 76', 3-5/8" cem. 3986', Junk None
W.S.O.: 54' id. 3928'-5446', perf. 4190'-4205', 5140'-5160', 5190'-5200', and 5306'-5355'. T.D. 5450', plugged with cement 5446'-5426' and 5101'-4984'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5101' to 4984' in the process of plugging back.

The inspector arrived at the well at 10:45 a.m. and Mr. Wilson reported: that on June 9, 1953, 11 sacks of cement was dumped into the hole beginning at 5101'.

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4984' and brought up a sample of set cement.

The test was completed at 11:30 a.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4984' ARE APPROVED.

JRT:OH

cc Long Beach

Mr. C F Bowden Div Engineer
Union Oil Co of California
9545 South Santa Fe Springs Road
WHITTIER California

R. D. BUSH
State Oil and Gas Supervisor
By [Signature] Deputy
Mr. W S Eggleston

Los Angeles 17, Calif.

Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR:

Your proposal to plug & alter casing Well No. 3

Section 14, T. 4 S, R. 13 W S B. B. & M., Long Beach Field, Los Angeles County,
dated May 26 1953, received May 27 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 5446'-5428'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth - 4076'
   Deepen - 5450'

2. Complete casing record.
   12-3/8" 0 765'
   8-5/8" 0 3986' W.S.O.
   1161 6-5/8" H 4075' .inc. 89' perf., pulled
   1518' 5-1/2" F & C 5446', Bad 4195' & 5107'
   W.S.O. test on splice O.K.
   Bullet perf: 4190-4205, 5140-5180, 5190-5200, 5306-5355'

3. Last produced. April 1953 13 B/D 22.8 67.3% (Date) (Net 011) (Gravity) (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Plug 5-1/2" casing with cement from 5107' to 5000'.
2. Test on production.
3. Gun perforate 5-1/2" casing from 4950-4852'.
4. Test on production."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT
1. Plugging operations shall start from as deep as possible.
2. THIS DIVISION SHALL BE NOTIFIED TO WITNESS the location and hardness of cement plug at 5000'.

JLW:OH

cc W S Eggleston
C F Bowden
Long Beach

R. D. BUSH
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

Whittier, Calif. May 26, 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. Oiling Operators #3,

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 = 4076'
   Deepen = 5450'

2. Complete casing record.
   13-3/8" C 765'
   8-5/8" C 3906'
   424-1-6-5/8"-H-4975'-inc.-891'-parf.-pull
   1518' 5-1/2" P & C 5446', Bad 4195' & 5107'
   W.S.O. test on splice 0,K.
   Bullet perf: 4190-4205, 5140-5180, 5190-5200, 5306-5355'

3. Last produced. April 1953 13 B/D 22,80' 67.3%

The proposed work is as follows:

1. Plug 5-1/2" casing with cement from 5107' to 5000'.
2. Test on production.
3. Gun perforate 5-1/2" casing from 4950-4852'.
4. Test on production.

MAP CARD

UNION OIL CO. OF CALIFORNIA

(Case of Operator)

By

C. F. Bouder, Division Engineer.

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED.
Date Received 7-29-48

STENOGRAPHER

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

ENGINEER

BOND
Release Date Elig. 150b

HOLD BOND Reason

Data Needed

Name

Final Letter Eng.

8-2-48
STENOGRAPHER

Date Received 5-1-48

Form 100 101 103

Elec. Log Radio Log

Direct. Surv. Other Data

Location

Elevation Steno. Scott

ENGINEER

BOND Blanker Release Date Elig. 150b


HOLD BOND Reason

Data Needed

Final Letter Eng. 5-13-48

Data Needed
REPAIR REPORT
Portable Hoist
February 23, 1948

Proposed work:

Plug off present perforation with temporary bridge plug in Test H-I Zone.

November, 1947 8 B/D net - 23.1° - 61.1°

Rigged up. Pulled rods and tubing. Cleaned out from 5391' to 5426' with 3-1/8" Gavin baller. Ran 1-1/2" impression block to 5426'.

Set Baker bridge plug at 4327' - no fluid above plug. Dumped one sack cement at 4327'. Installed 5" control gate. Checked top of cement at 4318'. Dumped in 500 gallons of stove oil. Gun perforated 5-1/2" liner from 4190' to 4205' with two McCullough 1/2" holes per foot. Fluid level rose from 3918' to 3050' during shooting. Had a good gas blow.

Located top of sand at 4283'. Cleaned out with 3-1/8" baller to 4303'. Ran 1-1/2" impression block to 4210'. Ran 2-1/2" tubing to 4177'. Ran rods.

Hooked up flow line. Put well on pump.

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<tr>
<th>NO.</th>
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<th>EFFECTIVE DEPTH</th>
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<td>B.P. 4318</td>
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**PRODUCTION DATA**

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<td>21</td>
<td>2.2</td>
<td>22.8</td>
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</table>

Lowered with changed pump.

DIVISION OF OIL AND GAS
RECEIVED
MAY 1 - 1948
LOS ANGELES, CALIFORNIA

Names of drillers/head well pullers:
Santa Fe Springs Production

John R. Anderson
District Engineer
**Proposed Work:** Clean out bridge plug and return to production.
Production: 20 B/D net = 22.8° - 2.28

- **Pulled rods and tubing. Shut well in.**

- **Cleaned out from 4308' to 4316' with 2-5/8' bailer. Fluid level 3100'.**

- **Ran in with chisel shoe and drilled out bridge plug. Cleaned out with bailer to 5426'. Recovered metal and sand.**

- **Checked hole open to bottom. Ran tubing and rods. Put well on production.**

### PRODUCTION DATA

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- **Pulled rods and tubing. Cleaned out sand from 5368' to 5423' with 2-5/8' Cavins bailer. Ran rod & pump. Put well on prod.**

### NAMES OF DRILLERS/HEAD WELL PULLERS:

**John R. Frasier**

DISTRICT ENGINEER
Hamill Oil Co.,

"Oil Operators" #3

To perf. 4205' - 4190' later on if not enough to perf. up as high as 4050'.

To temp. bridge off lower perf. and inject to take both zones together.
No. P. 1-44335

Los Angeles 15, Calif. December 26, 1947

Mr. W. S. Eggleston

Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 3,

Section 13, T4 S., R13 W., S.E. B. & M., Long Beach Field, Los Angeles County, dated Dec. 22, 1947, received Dec. 23, 1947, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:
"The present condition of the well is as follows:
1. Complete casing record.
   Total depth 5450' - Plug 5428'
   13-3/8" G 765'
   8-5/8" G 3986'
   1518' 5-1/2" F & G 5446' Perf. 5140-5180', 5190-5200', 5190-5300'

2. Last produced Nov., 1947 8 B/D Ave. 23.0' 64.1% (Net Oil) (Gravity) (Cut)"

PROPOSAL:
"The proposed work is as follows:
1. Plug off perforations from 5140' to 5355' with a bridge plug.
2. Test H-I Zones by stages from 4200' to 4050'.
3. If O.K., knock out bridge plug and put on production."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT
1. It is understood that the bridge plug above the perforations 5355'-5140', does not fulfill the requirements of this division for the abandonment of the lower portion of the hole.
2. This division shall be kept informed of the results of tests after each stage of perforating, and will designate any requirements at that time.

SHR:OH

cc- John R. Fraser
    Long Beach

R. D. BUSH
State Oil and Gas Supervisor
By E.A. Munroe
Deputy

Blanket bond.
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Whittier ________ Calif. ________ Dec. 22 ________ 1947

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 #3
(Cross out unnecessary words)

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

Long Beach ________ Field, Los Angeles ________ County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 5450' - Plug 5428'
   13-3/8" C 765'
   8-5/8" C 3986'
   1518' 5-1/2" P & C 5446' Perf. 5140-5180', 5190-5200', & 5306-5355'

2. Last produced Nov., 1947
   (Date) 8 B/D Ave.
   (Net Oil) 23.0°
   (Gravity) 64.1%
   (Cst)

The proposed work is as follows:

1. Plug off perforations from 5140' to 5355' with a bridge plug.
2. Test H-I Zones by stages from 4200' to 4050'.
3. If O.K., knock out bridge plug and put on production.
SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No.: Oil Operators #3
Sec.: 13
T.: 4-5
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 December 31, 1937.

Date: September 11, 1941
Signed: Henry E. Winter
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 in or cemented in, number of lifts or cemented 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 bail.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>7-31</td>
<td>4076</td>
<td>Killed well with mud.</td>
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<tr>
<td>8-2</td>
<td>4080</td>
<td>Drilled through bottom of liner and ahead to 4080' with 5-5/8&quot; bit. Cut 6-5/8&quot; liner at 3976'.</td>
</tr>
<tr>
<td>8-3</td>
<td>4080</td>
<td>Recovered 18' 6-5/8&quot; liner. Ran in double cup inverted 6-5/8&quot; casing swab, changed from mud to oil, and washed perforations.</td>
</tr>
<tr>
<td>8-6</td>
<td>4170</td>
<td>Recovered remaining 98' of 6-5/8&quot; liner, changed from oil to mud, and drilled ahead with 7-5/8&quot; rock bit.</td>
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<td>8-21</td>
<td>5131</td>
<td>Drilled ahead with 7-5/8&quot; bits to 5131'. Hole was directionally controlled, using whipstocks at 4170', 4300', 4844', 4890', and 4977'. Ran Schlumberger survey.</td>
</tr>
<tr>
<td>8-25</td>
<td>54,50</td>
<td>Continued drilling directionally controlled hole with 7-5/8&quot; bits to 54,50'. Coordinates of hole at 54,50' 90.29' S. and 48.45' E. from the surface location of the hole. Ran Schlumberger survey. Ran in 1517.97' of new 5-⅝&quot; Grade &quot;B&quot;, 17#/casing, including 83.44' new Grade &quot;A&quot;, and 1,66' Burns 8-5/8&quot;×5-1/2&quot; liner hanger on top. Frozen and cemented at 54,50' wth 285 socks slow Colton cement.</td>
</tr>
<tr>
<td>8-29</td>
<td>54,50 Plug 54,28'</td>
<td>Found top of cement at 3685' and cleaned out cement to 54,28'. Changed from mud to water and bailed fluid to 3011'. After standing 8 hours, found top of fluid at 3011', with no rise. Test was witnessed by D. O. G., and splice of liner approved. Changed from water to oil.</td>
</tr>
</tbody>
</table>
Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No. Oil Operators #3, 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 December 31, 1937.

Signed: [Signature]

Date: September 11, 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 socks of cement used in cementing or plugging operations and exact position thereof. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

PRODUCTION DATA

<table>
<thead>
<tr>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>% Cut</th>
<th>Hours Pumped</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>123</td>
<td>22.3</td>
<td>15.5</td>
<td>12</td>
</tr>
<tr>
<td>141</td>
<td>107</td>
<td>22.3</td>
<td>24.2</td>
<td>24</td>
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<td>129</td>
<td>110</td>
<td>22.3</td>
<td>15.0</td>
<td>24</td>
</tr>
<tr>
<td>117</td>
<td>105</td>
<td>22.3</td>
<td>10.5</td>
<td>24</td>
</tr>
<tr>
<td>129</td>
<td>116</td>
<td>22.3</td>
<td>9.9</td>
<td>24</td>
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<tr>
<td>122</td>
<td>110</td>
<td>22.3</td>
<td>9.9</td>
<td>24</td>
</tr>
<tr>
<td>119</td>
<td>109</td>
<td>22.3</td>
<td>8.7</td>
<td>24</td>
</tr>
<tr>
<td>113</td>
<td>104</td>
<td>22.3</td>
<td>8.4</td>
<td>24</td>
</tr>
<tr>
<td>114</td>
<td>104</td>
<td>23.1</td>
<td>8.4</td>
<td>23</td>
</tr>
<tr>
<td>99</td>
<td>90</td>
<td>23.1</td>
<td>8.6</td>
<td>24</td>
</tr>
</tbody>
</table>

MEASUREMENT DATUM

All measurements taken from top of rotary table, which is 22" above top of derrick floor. Top of derrick floor is 5' 1" above top of cement cellar, or 9' 1" above floor of cellar.
**Operator**: Union Oil Company of California  
**Field**: Long Beach

**Well No.**: Oil Operators #3  
**Sec.**: 13  
**T.**: 4-S  
**R.**: 13-W  
**S.B.**: B. & M.

### FORMATIONS PENETRATED BY WELL

<table>
<thead>
<tr>
<th>Depth to</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4076 4723</td>
<td>647' Drilled</td>
</tr>
<tr>
<td>4723 4732</td>
<td>9'</td>
</tr>
<tr>
<td>4732 4959</td>
<td>227'</td>
</tr>
<tr>
<td>4959 4967</td>
<td>8'</td>
</tr>
<tr>
<td>4967 5278</td>
<td>311'</td>
</tr>
<tr>
<td>5278 5305</td>
<td>27'</td>
</tr>
<tr>
<td>5305 5450</td>
<td>145'</td>
</tr>
<tr>
<td><strong>TOTAL DEPTH</strong>: 5450'</td>
<td></td>
</tr>
</tbody>
</table>

- Sand and shale
- Sand with streaks of shale
- Sand and shale
- Shale
- Sand and shale
- Shale
- Sand and shale
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER, SIZE &amp; TYPE PIPETTE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL RECOVERY</th>
<th>SHALE</th>
<th>OIL</th>
<th>SAND</th>
<th>GRAY</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
<th>APPARENT DIP</th>
<th>ANGLE OF HOLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(NO CORES TAKEN)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No. 8976

STATE CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

LOS ANGELES, Calif. 9/10/1941

Name of Operator

Address

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 3 W., B. & M., as herewith enumerated by well numbers.

History

Core record

Subsequent work

R. D. BUSH, State Oil and Gas Supervisor

DUPLICATE

FORM 127. 97897 6-40 3500 TRIP

Deputy

CALIFORNIA STATE PRINTING OFFICE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40031

Los Angeles, Calif. September 10, 1941.

Mr. W. S. Engledow,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 3 Sec. 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by James T. Carrig, Inspector, representative of the supervisor, on August 29, 1941. There was also present E. E. Winter, Engineer, and J. Kowsh, Drilling Foreman.

Casing Record: 13-3/8" cem. 765'; 8-5/8" cem. 3926'.

Junk Hole.

W.S.O.: 5-1/2" cem. 3926'-5426'; T.D. 5450', plugged with cement 5450'-5426'.

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 6:30 P. M. AND MR. WINTER REPORTED THE FOLLOWING:

1. All of the 6-5/8" casing was recovered.
2. A 7-5/8" rotary hole was drilled from 4575' to 5450'.
3. On August 25, 1941, 1518' of 5-1/2" - 17 lb. casing was cemented at 5446' with 285 sacks of Slow Colton cement.
4. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3685' to 3938' and from 5226' to 5426'.
5. On August 29, 1941, at 10:00 a.m., the fluid was boiled to 3011'.

THE INSPECTOR NOTED THE FOLLOWING:

1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open to 5426'.

The test was completed at 7:20 p.m.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT NO FLUID HAS 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: ______________________  Deputy
No. P 1-36673
Los Angeles, Calif. July 21, 1913.

Mr. W. S. Eggleson,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 3,
Section 13, T. 4 S., R. 13 W., S. B. & M., Long Beach Field, Los Angeles County, dated July 22, 1913, received July 24, 1913, 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:
116' 6-5/8" L 4075', inc. 89' perf.
Last production, June, 1941 - 764 oil, 9521 water - 30 days.
It is desired to deepen to the "R-S" & "T" Zones."

PROPOSAL:
"The proposed work is as follows:
1. Full 6-5/8" liner.
2. Deepen to approximately 5400 ft.
3. Cement solid 5-1/2" blank liner with top at approximately 3940 ft.
4. Test splice by Division of Oil & Gas.
5. Gun perforate "R-S" & "T" Zones as determined from electrical log.
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.

cc: R. Z. Winter
Long Beach
WJG:G
S/R.

R. D. BUSH
State Oil and Gas Supervisor
By Deputy

[Signature]
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 22    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, altering, etc., the following well No. Oil Operators #3

(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 4,076'
13-3/8" C 765'
8-5/8" C 3986' O.K.
116' 6-5/8" L 4075', inc. 89' perf.

Last production, June, 1941 - 764 oil, 9,521 water - 30 days
It is desired to deepen to the "R-S" & "T" Zones.

The proposed work is as follows:

1. Pull 6-5/8" liner.

2. Deepen to approximately 5400 ft.

3. Cement solid 5-1/2" blank liner with top at approximately 3940 ft.

4. Test splice by Division of Oil & Gas.

5. Gun perforate "R-S" & "T" Zones as determined from electrical log.

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
DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator: UNION OIL COMPANY OF CALIFORNIA
Field: LONG BEACH

Well No.: OIL OPERATOR'S 3 No. 8-3
Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

Location: 982' N-W-ly along the center line of the Pacific Electric Railway right of way from the center line of Bixby Road, projected and thence 271' N 45° 30' W at right angles
Elevation: 63.88

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: Dec. 31, 1937
Signed: [Signature]

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

Commenced drilling: Nov. 5, 1937
Completed drilling: Dec. 5, 1937
Drilling tools: Rotary

Total depth: 4076
Plugged depth: 4076

Junk:

Commenced producing: Dec. 5, 1937
Flowing/gas lift/pumping:

Clean Oil bbl. per day: 367
Grav. Clean Oil: 23.5
Per Cent Water including emulsion: 1.5
Gas Mcf. per day: 279
Tubing Pressure: 360
Casing Pressure: 400

Initial production: 120 mesh
Tubing Pressure: 17-
Casing Pressure: 17-

Production after 30 days: 15
Flowing/gas lift/pumping:

Casing Record (Present Hole)

<table>
<thead>
<tr>
<th>Size of Casing (A. P. I.)</th>
<th>Depth of Shoe</th>
<th>Top of Casing</th>
<th>Weight of Casing</th>
<th>New or Second Hand</th>
<th>Seamless or Lapweld</th>
<th>Grade of Casing</th>
<th>Size of Hole Casing landed in</th>
<th>Number of Sacks of Cement</th>
<th>Depth of Cementing or through perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>765</td>
<td>Surface</td>
<td>45.97#</td>
<td>New</td>
<td>Sales.</td>
<td>C</td>
<td>17&quot;</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>8-5/8</td>
<td>3986</td>
<td>Surface</td>
<td>36#</td>
<td>New</td>
<td>Sales.</td>
<td>C</td>
<td>12-1/4&quot;</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>6-5/8</td>
<td>4075</td>
<td>3950</td>
<td>29#</td>
<td>New</td>
<td>Sales.</td>
<td>C</td>
<td>7-5/8&quot;</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>3986</td>
<td>4075</td>
<td>120 mesh</td>
<td>16</td>
<td>6&quot;</td>
<td>Kobe</td>
</tr>
</tbody>
</table>

Electrical Log Depths: Schlumberger from 765 to 4076

(Attach Copy of Log)
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA  Field: LONG BEACH

Well No. OIL OPERATOR 3 Sec. 13  T. 4-S  R. 15-W  S.B. B. & M.

Signed: [Signature]

Date: Dec. 31, 1937  Title: District Engineer

(Province, 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 period of time of pumping or bailing.

**Casing Record at Start of Work:**
New well

1937  Depth  Remarks

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-5</td>
<td>55</td>
<td>Spudded in and drilled with 17&quot; rotary bit.</td>
</tr>
<tr>
<td>11-9</td>
<td>765</td>
<td>Drilled with 17&quot; rotary bits to 765. Cemented new 13-3/8&quot; 45.97/ grade seamless slipjoint casing at 765' with 350 ft Victor H.E.S. treated cement. Cementing operations witnessed and approved by Murray-Aaron of Division of Oil &amp; Gas.</td>
</tr>
<tr>
<td>11-10</td>
<td>932</td>
<td>Found top of cement at 761. Drilled out cement and plugs to 765' and drilled ahead with 12-1/4&quot; bits.</td>
</tr>
<tr>
<td>11-24</td>
<td>3940</td>
<td>Drilled with 12-1/4&quot; bits to 3930' and cored with 7-5/8&quot; core barrels to 3940. Directional survey of hole made by Alexander Anderson.</td>
</tr>
<tr>
<td>11-25</td>
<td>4000</td>
<td>Cored ahead to 4000'. Ran Schlumberger survey. Reamed out core hole with 12-1/4&quot; bit to 3988'.</td>
</tr>
<tr>
<td>11-25</td>
<td>4000</td>
<td>Cemented 8-5/8&quot; 36# grade &quot;C&quot; 8-thread rounded seamless casing at 3988 with 400 sacks Victor oil well cement.</td>
</tr>
<tr>
<td>12-1</td>
<td>4030</td>
<td>Found top of cement at 3966'. Cleaned out cement and plugs to 3991. Water shut off test on 8-5/8&quot; casing at 3985 witnessed and approved by Stolz of Division of Oil &amp; Gas. Cored to 4030'.</td>
</tr>
<tr>
<td>12-3</td>
<td>4076</td>
<td>Cored to 4076. Ran Schlumberger survey. Landed 116' of 6-5/8&quot; 26# Grade &quot;C&quot; 10-thread casing at 4076', including 99' of 120 mesh (15-2-6) Kobe perforated on bottom. Bailed fluid to 1200' when oil broke in.</td>
</tr>
<tr>
<td>12-5</td>
<td>4076</td>
<td>Bailed hole clean. Landed 3&quot; upset tubing at 3710'. Ran rods and installed pumping unit. Well on pump 8:00 P.M. 12-5-37.</td>
</tr>
</tbody>
</table>
**History of Oil or Gas Well**

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


Signed: [Signature]

**Date:** Dec. 31, 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.

<table>
<thead>
<tr>
<th>Production Test Date</th>
<th>Gross</th>
<th>Net</th>
<th>Grav.</th>
<th>Cut</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-5</td>
<td>215</td>
<td>150</td>
<td>23.5</td>
<td>26.0</td>
<td>P 11</td>
<td></td>
</tr>
<tr>
<td>12-6</td>
<td>373</td>
<td>307</td>
<td>23.5</td>
<td>1.6</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-7</td>
<td>310</td>
<td>297</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-8</td>
<td>308</td>
<td>305</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-10</td>
<td>312</td>
<td>308</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-11</td>
<td>313</td>
<td>305</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-12</td>
<td>311</td>
<td>305</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-13</td>
<td>307</td>
<td>298</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-14</td>
<td>310</td>
<td>304</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-15</td>
<td>317</td>
<td>314</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-16</td>
<td>307</td>
<td>294</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-17</td>
<td>306</td>
<td>292</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-18</td>
<td>302</td>
<td>289</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-19</td>
<td>302</td>
<td>289</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-20</td>
<td>300</td>
<td>285</td>
<td>23.5</td>
<td>1.0</td>
<td>P 22</td>
<td>Changed gas line</td>
</tr>
<tr>
<td>12-21</td>
<td>302</td>
<td>279</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td>Working on gas engine</td>
</tr>
<tr>
<td>12-22</td>
<td>291</td>
<td>287</td>
<td>23.5</td>
<td>1.5</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-23</td>
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<td>287</td>
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<td>1.6</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-24</td>
<td>376</td>
<td>371</td>
<td>23.5</td>
<td>1.7</td>
<td>P 21</td>
<td></td>
</tr>
<tr>
<td>12-25</td>
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<td>1.8</td>
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</tr>
<tr>
<td>12-26</td>
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<td>1.5</td>
<td>P 20</td>
<td></td>
</tr>
<tr>
<td>12-27</td>
<td>335</td>
<td>279</td>
<td>23.5</td>
<td>1.4</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL REC.</td>
<td>SHALE</td>
</tr>
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<td>------------</td>
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<tr>
<td>11-23-37</td>
<td>1</td>
<td>7-5/8</td>
<td>3930</td>
<td>3943</td>
<td>17.8</td>
<td>0.3</td>
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NOTE-Driller reported shell at 3981.
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<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER SIZE &amp; TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL REC#Y.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
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</thead>
<tbody>
<tr>
<td>12-1-37</td>
<td>5</td>
<td>7-5/8 Soli</td>
<td>4000</td>
<td>4015</td>
<td>10.1</td>
<td>0.8</td>
<td>0.4</td>
<td>1.1</td>
<td></td>
<td>Firm soft fine brown oil sand. Good odor.</td>
</tr>
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<td></td>
<td></td>
<td>Hard dark brown fractured shale. Dip = 22°.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>4.8</td>
<td></td>
<td>Firm soft coarse brown oil sand. Good odor.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2</td>
<td></td>
<td>Firm soft fine brown oil sand. Good odor and dark amber cut.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Hard fractured brown shale. Dip = 16° with slickensides along dip.</td>
</tr>
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<td></td>
<td>Firm soft fine brown oil sand. Good odor and dark amber cut. Streak of brown bentonitic shale 0.3 from top.</td>
</tr>
<tr>
<td>12-1-37</td>
<td>6</td>
<td>7-5/8 Soli</td>
<td>4015</td>
<td>4030</td>
<td>6.7</td>
<td>2.3</td>
<td></td>
<td></td>
<td></td>
<td>Firm soft fine brown oil sand, poorly sorted top 1.0. Good odor and dark amber cut.</td>
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<tr>
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<td></td>
<td></td>
<td>0.3</td>
<td></td>
<td>Firm, fine brown oil sand laminated with grayish-brown bentonitic shale.</td>
</tr>
<tr>
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<td>0.4</td>
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<td>Hard grayish-brown bentonitic shale. Change from oil sand and shale above is very gradational.</td>
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<td></td>
<td></td>
<td></td>
<td>2.6</td>
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<td>Firm, soft fine brown oil sand. Good odor and dark amber cut.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td>0.1</td>
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<td>Hard brown shale.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
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<td>Firm soft fine brown oil sand.</td>
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<tr>
<td>12-2-37</td>
<td>7</td>
<td>7-5/8 Soli</td>
<td>4020</td>
<td>4045</td>
<td>7.6</td>
<td>0.2</td>
<td>5.6</td>
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<td>Hard brown shale. Dip = 17°.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Firm soft fine to medium brown oil sand. Good odor and dark amber cut.</td>
</tr>
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<td>Hard grayish-brown bentonitic shale.</td>
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<td>0.1</td>
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<td>Firm soft medium brown oil sand. Good odor and dark amber cut.</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECY.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
</tr>
<tr>
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<td>----------------------------------------------------------</td>
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<tr>
<td>12-2-37</td>
<td>8</td>
<td>7-5/8 Soli</td>
<td>4045</td>
<td>4050</td>
<td>13.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.8 of mud and cavings with streak of fine gray sand 0.5 from top. Soft fine brown oil sand mixed with mud. Hard brown shale with streaks and partings of fine brown oil sand. Firm soft fine brown oil sand. Hard brown shale with streaks of firm brown oil sand. Firm soft fine brown oil sand. Hard brown shale. Firm soft fine brown oil sand. Good odor and dark amber cut. Hard brown shale. Soft fine brown oil sand. Good odor and dark amber cut. Hard brown shale. Soft fine brown oil sand mixed with mud. Hard brown shale.</td>
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<tr>
<td>DEPTH TO</td>
<td>Thickness</td>
<td>Drilled or Cored</td>
<td>Recovery</td>
<td>DESCRIPTION</td>
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<td>Top of Formation</td>
<td>Bottom of Formation</td>
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<td>3864</td>
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<td>10</td>
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<td>Shell</td>
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<tr>
<td>3864</td>
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<td>Shell</td>
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<td>3865</td>
<td>4075</td>
<td>410</td>
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<td>Sand and streaks of shale (see core record)</td>
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</tr>
</tbody>
</table>
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Name of Operator: Union Oil Co. of Calif.

Address: LOS ANGELES

This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 13 N., R. 13 W., Long 1334.5, B. & M., as herewith enumerated by well numbers.

Logs:

History:

Core record:

Subsequent work:

R. D. BUSH, State Oil and Gas Supervisor

DEPUTY
Division of Oil and Gas

Report on Test of Water Shut-off

No. T 1-33469

Los Angeles, Calif. December 8, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your well No. "OIL OPERATORS" 3, 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 1, 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. Rampton, Engineer, and J. Kewish, Toolpusher.

Location of water tested above 3986 ft. and normal fluid level not determined.

Depth and manner of water shut-off: 3986 ft. of 8-5/8 in. 36 lb. casing was cemented in shale formation at 3986 ft. with 400 sacks Victor oil well cement by casing method.

Water string was landed in 12½ ″ rotary hole.

Casing record of well 13-3/8 cem. 765 ft. 8-5/8 ″ as above.

Reported total depth of hole 4000 ft. Hole bridged from XXX ft. to XXX ft. Hole cleaned out to 3991 ft. for this test.

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

At XXXX ft., casing fluid bailed to XXXX ft. drilling fluid swabbed to XXXX ft. at XXXX ft., top of oil found at XXXX ft., top of fluid found at XXXX ft.

The Inspector arrived at the well at 8:30 A.M. and Mr. Rampton reported the following:

1. No casing test was made.
2. 25′ of set cement was drilled out of the 8-5/8″ casing (equivalent to 35 sacks).
3. The Johnston tester was run into the hole on 4″ drill pipe.
4. The wall packer was set at 3989′.
5. The tester valve was opened at 9:12 A.M. and remained open for 30 minutes. During this interval there was a medium blow of air for 5 minutes, a strong to medium blow of gas for 24 minutes.

The Inspector noted the following:

1. When the drill pipe was removed 2700′ of oil was found in the drill pipe above the tester, equivalent to 38 bbl.
2. The fluid sample taken from the bottom of the drill pipe tasted fresh.
3. The recording pressure bomb chart showed that the tester valve was open for 30 minutes.
4. The test was completed at 11:50 a.m.

The shut-off is approved.

R. D. Bush
State Oil and Gas Supervisor

By

E. H. Huggins
Deputy
629 South Hill Street
Los Angeles, California
November 24, 1937.

Union Oil Company of California,
Santas 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" 3,
Sec. 13, T. 4 S., R. 13 W., S. B. E. & M., Long Beach field,
as follows:

Elevation: 53.83' U. S. G. S.

Location: 962 feet N.W. ly along the center
line of the Pacific Electric Railway Right of
Way from the center line of Sixty Road
projected and thence 271 ft. southwesterly
at right angles.

Our records have been corrected accordingly.

Yours truly,

[Signature]

B: EMS

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

Deputy Supervisor.

Corrections Made as Follows
Weekly Summaries
Oil Reports
Production Reports
Wall Records
Pee Model
Graphics

By Whom

[Table with entries]

Book  CLB
11/24/37
Santa Fe Springs, Calif.  Nov. 22, 1937

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #3" at Long Beach (Sec. 13-4-13) is 53.88 U.S.G.S.

The corrected location is as follows:

962 ft. N-W'ly along the center line of the Pacific Electric Railway Right of Way from the center line of Bixby Road projected and thence 271 ft. Southwesterly at right angles.

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. T 1-33407

Los Angeles, Calif. November 29, 1937.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 3 Sec. 13, T. 4 S., R. 13 W., S.E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by E. R. Murray-Aaron, representative of the supervisor, on November 9, 1937. There was also present R. Hampton, Engineer, and J. Kewish, Drilling Foreman.

Casing Record 13-3/8" cm. 765'; T.D. 765'.

Junk xxxxx

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 8:45 A. M. AND MR. HAMPTON REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 765'.
2. 770' of 13-3/8" - .45.97 lb. casing was run into the hole to 765'.

THE INSPECTOR NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 765' with 350 sacks of Victor High Early cement.
2. The final pressure was 500 lb.

The operations were completed at 9:30 a.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
ERMA:CH

R. D. BUSH
State Oil and Gas Supervisor

By

Deputy
No. P. 1-31535

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" 3, Section 13, T4 S., R. 13 W. S.B. & M., Long Beach Field, Los Angeles County, dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:
"The well is 355 feet Wly along the center line of San Antonio from the center line of Del Mar Ave. and thence 925' Wly at right angles. 53.88 ft. The elevation of the derrick floor above sea level will be determined later - approx. 55 ft. We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less."

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

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>Weight</th>
<th>New or Second Hand</th>
<th>Depth</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>Cntd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4000</td>
<td>Cntd.</td>
</tr>
<tr>
<td>6-5/8&quot; perforated liner</td>
<td>New</td>
<td></td>
<td>4100'</td>
<td>Landed.</td>
</tr>
</tbody>
</table>

Well is to be drilled with rotary tools.

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

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT:
1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the well and the column of mud fluid shall be maintained at all times to the surface, particularly while pulling the drill pipe.
   (b) Adequate blow-out prevention equipment shall be provided and ready for operation at all times.
2. Any hole to be sidetracked at any time during the drilling of this well shall be completely filled with cement.
3. The formations to be left back of the 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:OH

R. D. BUSH
State Oil and Gas Supervisor

By

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

General Exploration Co.

Santa Fe Springs, Cal. Oct. 28, 1937

E. Huguenin
Deputy State Oil and Gas Supervisor
Los Angeles, Cal.

Dear Sir:

"Oil Operators 3"

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 #3, Sec. 13, T. 4 S, R. 13 W, S.B., B & M., Long Beach Oil Field, Los Angeles County. Lease consists of Way from the center line of the Pacific Electric Railway Right-of-Way, 982 feet N.W. 'ly along the center line of the Pacific Electric Railway Right-of-Way from the center line of the Pacific Electric Railway Right-of-Way and thence south-southwest 355 feet along the center line of San Antonio from the center line of Del Mar Avenue, and thence 925 N. 'ly at right angles. The well is 53.66 feet westerly at right angles. (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&quot;</td>
<td>46</td>
<td>New</td>
<td>700'</td>
<td>Ctd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4000</td>
<td>Ctd.</td>
</tr>
<tr>
<td>5-5/8&quot; Perforated liner</td>
<td></td>
<td>New</td>
<td>4100'</td>
<td>Landed</td>
</tr>
</tbody>
</table>

The elevation of the derrick floor above sea level is approx. 55 ft.

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 42887

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

By: H. E. White
District Engineer.

Address Notice to Deputy State Oil and Gas Supervisor in Charge of District Where Well is Located
PARKMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853
REPORT OF WELL ABANDONMENT

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" 8-3, A.P.I. No. 037-06496, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 12/15/2013, received 1/8/2014, 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 12/2/2013.
2. Site inspection made and approved on 12/19/2013.

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By

For

Daniel J. Dudak, District Deputy

EPM:epm

cc: Long Beach Dept. of Gas & Oil

OG159
Mr Mark Pender  
C.R.G. Properties, LTD (C0250)  
149 S. Barrington Ave. #804  
Los Angeles, CA 90049

Cypress, California  
May 21, 2014

Your report of abandonment of well "Nwilbu" 8-3, A.P.I. No. 037-06496, Section 13, T. 04S, R. 13W, SB B.&M., Long Beach field, Los Angeles County, dated 12/12/2013, received 2/4/2014, has been examined in conjunction with 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 filing of well records.


2. Site inspection made and approved on 12/19/2013.

Pat Perez  
Acting State Oil and Gas Supervisor

By  
Daniel J. Dudak, District Deputy

OG159
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

SITE RESTORATION MEMO

Operator: C.R.G Properties, Ltd
API No: 037-06496
Field: Long Beach
Well: "NW, BU-8-3"
Sec: 13, T: 045, R: 13W, SB: B&M

Date 3/2/2014
County: Los Angeles
representative of the supervisor, was present 1000 to 1200

Mr. / Ms. Abdulmageed (AB) Abdulrahman
Contact Number: (310) 505-9787
There were also present: Mick Beyer of AllenCo
Email: 

Surface location description: The property at 712 W. Baker Street (Baker Street / Golden Street) The property can be accessed near intersection of Magnolia Ave. and Wardlow Rd.

Date of Abandonment/Re-Abandonment: 11/01/2013

<table>
<thead>
<tr>
<th>Approved</th>
<th>Not Approved</th>
<th>Corrected</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td>Not obstruction as of the date of the inspection</td>
</tr>
<tr>
<td>X</td>
<td></td>
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<tr>
<td>X</td>
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<td></td>
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<tr>
<td>X</td>
<td></td>
<td></td>
<td>Not Applicable</td>
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<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Photos Taken For The Final Inspection:
See the following photos

Number of deficiencies: 31/A
Deficiency Letter Date: ____________
Deficiency Letter Number: ____________

Photos attached to well file: Yes [ ] No [ ]
The inspection as witnessed and reported is approved. Yes [ ] No [ ]

By: Abdulmageed G. Abdulrahman
Date: 6/17/2014

Dist 1, Rev 5/2014
All equipment, pipeline, casing or junk were removed from the site. All liquid wastes were removed and properly disposed. Excavations filled with earth and compacted properly to prevent settling.

Additional description of site restoration:

Discription:
## CHECK LIST – RECORDS RECEIVED AND WELL STATUS

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td>2/4/2014 (2)</td>
<td>Active</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</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric Logs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### WELL TYPE

- Oil
- Gas
- Water Source
- Water Flood
- Observation
- Cyclic Steam
- Exploratory
- Steam Flood
- Fire Flood
- Dry Hole

### EFFECTIVE DATE: 12/12/13

### REMARKS:
- Abandoned

## ENGINEERS CHECK LIST

- Summary, History & Core Record (Dupl.)
- Electric Log
- Operator's Name
- Signature
- Well Designation
- Location
- Elevation
- Notices
- "T" Reports
- Casing Record
- Plugs
- Directional Survey
- Production/Injection (FAP Codes: 4/12-03-00)
- E Well on Prod., enter EDP
- Surface Inspection Required: 12/19/13 OK
- Surface inspection Waived (Island)
- Well site restoration deferred (common cellar)
- Final Letter Required: AB: ☒ REAB: ☐

### CLERICAL CHECK LIST

- Location change
- Elevation change
- Form OGD121
- Duplicate logs to archives
- Notice of Records Due
- EDP: M/C 5-15-14
- Final Letter (OG159): M/C 5-15-14

## FIELD CHECK LIST

- Date Surface Inspection Completed: 12/19/13 BFD

## RECORDS NOT APPROVED

(Reason:)

## RECORDS APPROVED

(Signature: M. Andrews)

RELEASE BOND

Date Eligible

(Use date last needed records received:)

MAP AND MAP BOOK

OGD2 1/16/14 CYPRESS
HISTORY OF OIL OR GAS WELL

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.

11-08-13  M.I.R.U. – Installed and tested  BOPE–Witnessed by C. Cullum w/DOGGR - Secured Well

11-11-13  R.I.H.5 ½” Scraper tagged dr. @ 5842’ = 104’ above clean out depth - Circ.with water w/returns of oily water and gas – P.O.H. Witnessed by M. Okafor & Z. Amilhussin w/ DOGGR - Secured well

11-12-13  R.I.H.W/Tbg. cleaned out scale and fine sand from 5842’ to 5900’ unable to work deeper – Secured well

11-13-13  W/Tail at 5900’ mixed and pumped 247 cu/ft (217 sxs) class G cement – P.O.H.– Witnessed by Secured well


11-25-13  Dug down around well and cut casing 5’ below surface – Found cement low inside 10’ and outside 20’ – Secured well

12-03-13  Topped off casing’s with 36 c.f.(31 sxs) class G cement- E. Tabor w/DOGGR witnessed

12-04-13  Surface tag and welding of J.D. Plate Witnessed by P.Kauffman - Backfilled well location - Job complete.
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.

11-08-13  M.I.R.U. – Installed and tested BOPE–Witnessed by C. Cullum w/DOGGR - Secured Well

11-11-13  R.I.H.5 ⅝" Scraper tagged dn.@ 5842’ = 104’ above clean out depth - Circ.wth water w/returns of oily water and gas - P.O.H. Witnessed by M. Okafor & Z. Amilhussin w/ DOGGR - Secured well

11-12-13  R.I.H.W/Tbg. cleaned out scale and fine sand from 5842’ to 5900’ unable to work deeper – Secured well

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12-04-13  Surface tag and welding of I.D.Plate Witnessed by P.Kaufman - Backfilled well location - Job complete.
ON OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator  CRG Properties  Well No.  "Nwibu" 8-3
API No.  037-06496  Sec. 13  T. 04S  R. 13W  S.B.  B&M
Field  Long Beach  County  Los Angeles  On  12-4-13
Mr. / Ms.  J. Collender, representative of the supervisor, was present from 1115 to 1130.

There were also present Mr. Tim Parker (Allenco)

Casing record of well: 13 3/8" cem 765', cp 200'; 8 5/8" cem 3986', drilled thru 3139', cp 2,440'; 5 1/2" Id 3043'-5964', cp 4393', perfs 4488-5827'. TD (present hole) 6540'. Plugged w/ cem 6540'-6904', 5878'-4067', 3875'-2773', 2450'-2171', 210'-6.5'.

The operations were performed for the purpose of Abandonment.

☐ 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: 17</th>
<th>fr. 0</th>
<th>to 765</th>
<th>12 ¼</th>
<th>to 3139</th>
<th>&amp; 7 5/8</th>
<th>to 6540</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing</td>
<td>Cemented</td>
<td>Top of Fill</td>
<td>Squeezed Away</td>
<td>Final Pressure</td>
<td>Perforations</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top</td>
<td>Bottom</td>
<td>Date</td>
<td>MO-Depth</td>
<td>Volume</td>
</tr>
<tr>
<td>8 5/8&quot;</td>
<td>36#</td>
<td>0'</td>
<td>3,986'</td>
<td>11/18/13</td>
<td>tbg@2,450'</td>
<td>200 cf</td>
</tr>
<tr>
<td>13 3/8&quot;</td>
<td>46#</td>
<td>0'</td>
<td>210'</td>
<td>11/19/13</td>
<td>tbg@200'</td>
<td>103 cf</td>
</tr>
</tbody>
</table>


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>Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>83/25</td>
<td>11/14/13</td>
<td>25</td>
<td>4067'</td>
<td>3,875'</td>
<td>3,875'</td>
<td>C. L. Cullum</td>
</tr>
<tr>
<td>73/26</td>
<td>11/18/13</td>
<td>27</td>
<td>2,773'</td>
<td>2,318'</td>
<td>2,318'</td>
<td>Z. Amilhussin</td>
</tr>
<tr>
<td>73/40</td>
<td>11/19/13</td>
<td>120</td>
<td>2,018'</td>
<td>1,971'</td>
<td>1,971'</td>
<td>T. Tyler</td>
</tr>
</tbody>
</table>

Note (12) Class II 3M; 11/08/13; C. Welty C/O 5900' w/ 20,000@ 1200 11/12/13 PK

<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/ft</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>11-13-13</td>
<td>247 cf</td>
<td>Tbg 5878*</td>
<td>0900</td>
</tr>
<tr>
<td>11-15-13</td>
<td>212 cf</td>
<td>Tbg 3875*</td>
<td>0830-1045</td>
</tr>
<tr>
<td>11-18-13</td>
<td>210 cf</td>
<td>Tbg 2450*</td>
<td>1300</td>
</tr>
<tr>
<td>11-19-13</td>
<td>73sx/84 cf</td>
<td>Tbg@200'</td>
<td>1425-1500</td>
</tr>
<tr>
<td>12/2/13</td>
<td>36 cf</td>
<td>Top 29.5</td>
<td>1030</td>
</tr>
</tbody>
</table>

* 6 stages with tbg raised from 5878' through 4313'
Mick wants a variance to start cementing at 5900’.

From: Mick Beyer [mailto:mbeyer@allencoca.com]
Sent: Tuesday, November 12, 2013 12:34 PM
To: Moser, Ellen@DOC
Subject: Well Abandonment Nwlbu 8-3

Ellen,

We tagged fill at 5842’ cleaned out with water down to 5900’ (we had no solid returns to surface, it seemed like cement steamer) we are hitting hard at this depth. Well history is showing cement plug at 5964’ it seems we are hitting it at 5900’. We would like approval to start are cement plug at 5900’

Note; On well 9-4 we tagged hard at 9125’ when clean out depth was 9151’ DOGGR Allowed us to cement at 9125’
Note; On well 9-5 we tagged fill at 9410’ cleaned out hard to 9420’ when clean out depth was at 9454’ DOGGR Allowed us to cement at 9420’

Sincerely,

Mick
Mick Beyer, Operations Manager
mbeyer@allencoca.com
AllenCo
2109 Gundry Avenue
Signal Hill, CA 90755
Phone: 562-989-6100
FAX: 562-989-6104
Cell: 310-505-9787
www.allenco-oilwellservice.com

Telecon w/M. Beyer- gravel sized chunks of cement had been brought up for some time with well fluids when circulating, then brought up chunks of cement. Fill at 5900’ in hard, push on w/20K#. Okayed to cement. AllenCo will use 8 ½” scraper to liner top, then circulate before placing mud. KMR 11/12/13.

11/14/13 Okayed change in program to place one plug from 3875’ to 2800’, KMR
Mr Mark Pender
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #904
Los Angeles, CA 90049

Cypress, California
January 24, 2014

Your operations at well "Nwibu" 8-3, A.P.I. No. 037-06496, Sec. 13, T. 04S, R. 13W, SB B&M., Long Beach field, in Los Angeles County, were witnessed on 11/8/2013, by Jack Collender, a representative of the supervisor.

The operations were performed for the purpose of plugging and abandonment.

DECISION: APPROVED

NOTE: The required Class 112M blowout prevention equipment was inspected and approved on 12/4/2013.

DEFICIENCIES NOTED AND CORRECTED: NONE

KMA: dt:

cc: Update

Tim Kusic
State Oil and Gas Supervisor

By: [Signature]

For: Daniel J. Dudak, District Deputy

OG109 (Rev. 10/2011)
BLOWOUT PREVENTION EQUIPMENT MEMO

Operator: C.R.G. Properties, LTD
Well: "NWLB/" 8-3
Field: Long Beach
County: L.A.

VISITS:
1st 11/08/13 C. Welty
2nd & Quang Than, Dale Peterson
Contractor: Allenco
Rig #: 2
Contractor's Rep. & Title: Derick Beyer, Driller
Casing record of well: memo

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ❌ N ❌
DECISION: The blowout prevention equipment and its installation on the 8,625 casing are approved.

Proposed Well Opns: Abandonment

Hole size: "fr. 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>
<tbody>
<tr>
<td>BOP STACK</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Rd</td>
<td>2 7/8</td>
<td>Shaffer</td>
<td>Chasoy</td>
<td>7.125</td>
<td>5M</td>
<td>1</td>
<td></td>
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<tr>
<td>Rd</td>
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<td>Chasoy</td>
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</table>

TEST DATA

ACQUIRING SYSTEM
Accumulator Unit(s) Working Pressure: 1,400 psi

TOTAL: 2

AUXILIARY EQUIPMENT

<table>
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<tr>
<th></th>
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<th></th>
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</thead>
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<tr>
<td>Fill-up Line</td>
<td>2</td>
<td>5M</td>
<td></td>
<td></td>
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<tr>
<td>Control Valve(s)</td>
<td>2</td>
<td>5M</td>
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<tr>
<td>Check Valve(s)</td>
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<tr>
<td>Aux. Pump Cnct.</td>
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<td>Choke Line</td>
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<tr>
<td>Pressure Gauge</td>
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<tr>
<td>Adjustable Choke(s)</td>
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<td>Bleed Line</td>
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<td>Upper Kelly Cock</td>
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<td>Lower Kelly Cock</td>
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<tr>
<td>Standpipe Valve</td>
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<tr>
<td>Standpipe Pres. Gau.</td>
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<td>Pipe Safety Valve</td>
<td>2.88</td>
<td>5M</td>
<td></td>
<td></td>
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<tr>
<td>Internal Preventer</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

EMERG. BACKUP SYSTEM
N2 Cylinders
Other: | Press. | Wkg Fluid |
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>L= 51</td>
<td>2280psi</td>
</tr>
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<td>L=</td>
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<tr>
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HOLE FLUID MONITORING EQUIPMENT

REMINDS AND DEFICIENCIES:
17°
ETOCL = 95°
ETOCL = 2879
12 1/4°

350sx x 402.5cf
in 13 3/8 x 17" = 670.1 lin ft

ETOCL = 95°

Drilled thru C-5184

400sx x 468.0cf
3951 - 3958 inside 6" wash 10 cf
457cf = 1107 lin ft, ETOCL = 2879

7 5/8"

5139
5191

3124
3174

5450°
5446
5448-3 685 inside 5 5/8" wash 230 cf
285sx = 536 cf - 230 = 106 cf
106 cf in 5 1/2 x 7 5/8 = 697 lin ft
ETOCL = 4749°

TD = 6540

Liner tip 3932"

7 5/8" hole

5964 X 5827

1 1/2" pipe

7 13 of in 5 1/2" x 7 5/8"
fills from 5964 to 3043

KWA
11-6-13

087
4839
4885
4025
4029
4027
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3997
3995
3993
3991
PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL

Mr Mark Pender, Agent
C.R.G. Properties, LTD (C0250)
149 S. Barrington Ave. #804
Los Angeles, CA 90049

Your proposal to Abandon well "Nwlbu" 8-3, A.P.I. No. 037-06496, 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 wireline 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. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
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 8-5/8" 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 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.
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. No program changes are made without prior Division approval.
10. 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 6540'.

(Continued on page 2)

No Bond Required
cc: Update
EDP
AllenCo.
DOGGR - Dist. 1 (Cypress)

Engineer Ellen Plaza Moser
Office (714) 816-6847

EPM/epm

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 06/2011)
Page 1 of 2
c. Witness the placing, location and hardness of the cement plug from 6540' to 4193'.
d. Witness the mudding operations.
e. Witness the placing, location and hardness of the cement plug from 3875' to 3675'.
f. Witness the placing, location and hardness of the cement plug from 3043' to 2800'.
g. Witness a pressure test of the 8-5/8” casing.
h. Witness the cement squeeze through the perforations at 2440' through a retainer or packer (if casing integrity is not demonstrated).
i. Witness the placing, location and hardness of the cement plug from 2450' to 2190'.
j. Witness the cement squeeze through the perforations at 210' through a retainer or packer (if casing integrity is not demonstrated).
k. Witness the placing, location and hardness of the cement plug from 210' to surface', including all annular spaces.
l. Inspect the restored well site.

NOTE:
1. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
2. 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.
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 at 2260'.
   b. Top of the Upper Gas Zone at 2400'.
   c. Top of the Wilbur Zone at 3000'.
   d. Top of the Alamitos Zone at 3875'.
   e. Top of the Brown Zone at 4680'.
Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).
NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon □ / re-abandon □ well "Nwibu" 8-3, API No. 037-06496, Sec. 13, T. 4S, R. 13W, S.B., B&M, Long Beach Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.) See Attachment

The total depth is: 6540 feet. The effective depth is: 5964 feet. Present completion zone(s): see attachment. Present zone pressure: N/A psi. Oil or gas shows: see attachment feet. Depth to base of fresh water: 2260 feet. Top of uppermost hydrocarbon zone (which may be behind unperforated casing): see attachment feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes□ No□

The proposed work is as follows: (A complete program is preferred and may be attached.) See Attachment.

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator
C.R.G. Properties, Ltd

Address
2109 SUNDAY AVE.

City/State
 SIGNAL HILL
Zip Code
90755

Name of Person Filing Notice
MICK BEYER
Telephone Number: 562 989-6100
Signature

Individual to contact for technical questions:
MICK BEYER
Telephone Number: 310 505-9787
E-Mail Address: Mbeyer@allencoca.com

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

OG108 (1009)
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/dogf]
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

C.R.G. Properties, Ltd.  Well "Nwlbu" 8-3 (037-06496), 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: West of Pacific Place just North of the 710 freeway on ramp. See map Exhibit A - Attachment II
2. Accessibility:
3. Status: Idle deserted
4. Total Depth: 6540'  Effective Depth: 5964'  Elevation of Kelly Bushing (KB) above sea level: 60'
5. Casing: 13-3/8" 45.97#/ casing cemented 765' with estimated top cement behind pipe at 844'+/-; 8-5/8" 36#/ casing cemented 3686' with estimated top of cement behind pipe at 2865' +/-, drilled thru 3193'; 5-1/2" 15.5#/ Id 3043' – 5964', cp 4393, estimated top of cement behind pipe at 3043, perforated from 4458' to 5827'.
6. Tubing: Unknown  Rods: Unknown
7. Base of Fresh Water (BFW): 2280'
8. Producing Zone(s): Alamitos
9. Hole Fluid: Unknown
10. Junk: Unknown
11. Plugs: 6540' to 5964'.
12. Comments: Top of Brown zone 4680', top of Alamitos zone 3875', top of Wilbur zone 3000', and top of Upper Gas zone 2400'.

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.
EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.

7. Remove rod Reagan. Install and function test Class II/3M BOPE (function test BOPE each day thereafter).

8. Pull out all production tubing.

9. Use appropriate combination tools to clean out to 6540'.

10. Run in scraper. Scrape the 8 5/8” and the 5 3/8” casings.

11. Run in hole with tubing (if tag high, clean out fill to 6540').

12. The well shall be plugged with cement from 6540' to 4193'.

13. The well shall be plugged with cement from 3875' to 3675'.

14. The well shall be plugged with cement from 3043' to 2800'.

15. Prior to shooting any perforations for braidedhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.

16. The 8-5/8” casing shall be perforated from 2440 to 2450'. Get an injection rate or a breakdown.

17. Sufficient cement shall be squeezed into the perforations to fill to 2190' outside the 8-5/8” casing.

18. The well shall be plugged with cement from 2450' to 2190'.

19. The 8-5/8” casing shall be perforated from 210 to 200'. Get an injection rate or a breakdown.

20. Sufficient cement shall be squeezed into the perforations to fill to surface.

21. The well shall be plugged with cement from 210' to surface.

22. The 13-3/8” X 17” annulus shall be plug with cement from 84’ to surface.

23. All casing must be removed from between 5’ and 10’ below ground level.

24. 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.

25. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.

26. 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.
27. 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.

28. 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.
STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REVISED

FORMAL ORDER TO:
PLUG AND ABANDON WELLS &
RESTORE LEASE CONDITIONS

NO. 1032
Dated: October 18, 2012
Operator: C.R.G. Properties, Ltd. (C0250)

BY
Tim Kustic
STATE OIL AND GAS SUPERVISOR

ORDER NO. 1032
Order to Plug and Abandon Wells & Restore Lease Conditions
# REPORT OF PROPERTY AND WELL TRANSFER

**Field or County:** Long Beach  
**Former owner:** Pacific Energy Res.  
**District:** District 1 (Cypress, California)  
**Date:** July 26, 2000

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<td>037-00393</td>
<td>Sec. 13-4S-13W</td>
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Description of the land upon which the well(s) is (are) located:

See above

**Date of transfer:** May 9, 2000  
**New owner:** C.R.G. Properties, Ltd. C0250  
**Type of organization:** Corp./Ltd.  
**Address:** 15323 Antioch Street, Suite 338  
**Telephone:** (310) 808-9071  
**Reported by:** OG34A received 6/2/2000 signed by both parties  
**Confirmed by:** Same as above  
**New operator new status:** PA  
**Designation of Agent:** Mark Pender  
**Old operator new status:** PA  
**Remarks:** See operator file for C.R.G. Properties, Ltd. for details.

**OPERATOR STATUS ABBREVIATIONS**

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

**cc:** Update; Envir Dsk; File  
Conservation Committee  
Harold W. Bertholf, Inc.  
LA County Assessor  
Sacramento EDP  
Cypress EDP

**FORM AND RECORD CHECK LIST**

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<th>Form or Record</th>
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**Deputy Supervisor:** R. K. Baker  
**Signature:** Floyd M. Leeson  
Operations Engineer
WELL TRANSFER NOTICE

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

<table>
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<th>District</th>
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**Former owner**

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<th>Date</th>
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<td>Sun Exploration &amp; Production Co.</td>
<td>June 15, 1983</td>
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<td>Sec. 13-4S-13W S.B.B.&amp;M.</td>
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<tr>
<td>NWLBU 5-2 (037-00397)</td>
<td>NWLBU 8-1 (037-09792)</td>
</tr>
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<td>NWLBU 5-3 (037-09796)</td>
<td>NWLBU 8-2 (037-09793)</td>
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<td>NWLBU 5-4 (037-09797)</td>
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<tr>
<td>NWLBU 6-1 (037-09788)</td>
<td>NWLBU 8-4 (037-06415)</td>
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<td>NWLBU 6-2 (037-09789)</td>
<td>NWLBU 8-7 (037-22512)</td>
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<td>NWLBU 9-3 (037-09791)</td>
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<td>NWLBU 9-4 (037-00392)</td>
<td>NWLBU 9-5 (037-00142)</td>
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<tr>
<td>NWLBU 9-6 (037-00393)</td>
<td>NWLBU 9-7 (037-22512)</td>
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</tbody>
</table>

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

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

**New owner:** Petro Resources, Inc.

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

**Telephone No.:** 805/323-4118

<table>
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<th>Type of organization</th>
<th>Corp.</th>
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**Reported by:** Letter from Sun Exploration & Production Co. dated 5-16-83.

**Confirmed by:** Letter from Petro Resources, Inc., dated 5-18-83.

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

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

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

**Remarks:**

**Deputy Supervisor:** V. F. Gaede

**Signature:**

---

### OPERATOR STATUS ABBREVIATIONS

- **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

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<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
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<tr>
<td>Production reports</td>
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</table>

**Update:** 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>
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<tbody>
<tr>
<td>&quot;Oil Operators&quot; 1</td>
<td>037-09792 (see)</td>
<td>NWLBU 8-1</td>
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<tr>
<td>&quot; &quot;</td>
<td>2</td>
<td>037-09793</td>
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<td>037-09789</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 2</td>
<td>037-13525</td>
<td>NWLBU 9-2</td>
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<tr>
<td>&quot; &quot;</td>
<td>3</td>
<td>037-09791</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>4</td>
<td>037-00392</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>5</td>
<td>037-00142</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>6</td>
<td>037-00393</td>
</tr>
</tbody>
</table>

RNS:sc

cc: Update Center
    EDP
    Conservation Committee

M. G. Mefferd
State Oil and Gas Supervisor

By R. A. Ybarra

John E. Matthews, Jr.
Acting Deputy Supervisor
REPORT OF PROPERTY AND WELL TRANSFER

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

Name and location of well(s):

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

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

Sec. 14-4S-13W
"Dominguez" 1 (037-11858)

Date of transfer, sale, assignment, conveyance, or exchange: Dec. 1, 1978
New owner: Sun Oil Company
Address: 23928 Lyons Avenue  
Newhall, CA 91321

Reported by: Former operator
Confirmed by: New operator

New operator new status (status abbreviation): PA
Old operator new status (status abbreviation): AB
Remaining: 

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPI1</td>
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<tr>
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<td>Ab</td>
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<tr>
<td>Well records</td>
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<tr>
<td>Production logs</td>
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<tr>
<td>Other records</td>
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<td></td>
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<tr>
<td>Conservation Committee Update Center</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deputy Supervisor: H. B. Albright  
Signature: E. B. 
Check: EDP Update
OGD15b 11-37 (03/1-11)
**DIVISION OF OIL AND GAS**

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

Company: GENERAL EXPLORATION
Well No: "OK OPERATORS" 3
API No: 037-06496 Sec: 13, T. 4S, R. 18 W.
County: LA, Field: LONG BEACH

<table>
<thead>
<tr>
<th>RECORDS RECEIVED</th>
<th>DATE</th>
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</thead>
<tbody>
<tr>
<td>Well Summary (Form OG100)</td>
<td></td>
</tr>
<tr>
<td>History (Form OG103)</td>
<td>5-27-77</td>
</tr>
<tr>
<td>Core Record (Form OG101)</td>
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<tr>
<td>Directional Survey</td>
<td></td>
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<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>
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</tbody>
</table>

**STATUS**

<table>
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<tr>
<th>STATUS</th>
<th>NOTE</th>
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<tr>
<td>Producing - Oil</td>
<td>X Water Disposal</td>
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<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>
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<tr>
<td>Idle - Gas</td>
<td>CO2 Injection</td>
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<td>Abandoned - Gas</td>
<td>LPG Injection</td>
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<tr>
<td>Gas-Open to Oil Zone</td>
<td>Observation</td>
</tr>
<tr>
<td>Water Flood Source</td>
<td>DATE 4-24-77</td>
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</tbody>
</table>

**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 OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

**RECORDS NOT APPROVED**

Reason:

**RECORDS APPROVED**

**RELEASE BOND**

Date Eligible: 5-22-77
(Use date last needed records were received.)

**MAP AND MAP BOOK**

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

Operator: GENERAL EXPLORATION CO.  Field: NORTH LONG BEACH
Well No.: OIL OPERATORS 3, Sec. 13, T., 48, R., 13W, SB B. & M.

Date: 5-25-1977  Signed: Production Superintendent
4021 N. PACIFIC LONG BEACH  Title: 213-636-1629
(Address)  (Telephone Number)  (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 plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

4-16-77  Rigged up well servicing unit. Pulled rods & tubing. Ran bailer and tagged fill at 5870'. Installed BOP.

4-17-77  Ran Baker scraper and brushes in hole. Tested tubing to 5000psi. Rigged up Dresser Atlas. Ran correlation log and perforated 2 hpf as fellows: 4740'-4765'; 4775' - 4707'; 4792' - 4810'.

4-18-77  Ran scraper through new perfs. Ran wash tool with retrievomatic packer to top of liner.

4-19-77  Washed perfs with acid mixture
A. 10 gal/ft 15% BJ One shot (15% solvent)
B. 15 gal/ft 12-3 40L-HF One shot (10% Solvent)
C. 10 gal/ft #1 Diesel Fuel containing 10% EGME Mutual Solvent

4-20-77  Continued washing perfs. Surged perfs with wash tool, pulled out, ran in hole with suction washer.

4-21-77  Suction washed perfs. Ran bailer, tagged fill at 5849!

4-22-77  Ran tubing and rods. Put well on production.

4-23-77  Well did not pump up.

4-24-77  Pulled rods and pump. Barrel unscrewed, ran new pump. Put well back on production.

32.2 BOPD  25.7 BWPD  45.1% CUT

Date
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>May 27</td>
<td>12:45 PM</td>
<td>LONG BEACH, CA</td>
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</table>

**DIV. OF OIL AND GAS**

**STORAGE HOPPER**

**60" X 30'**

**Inlet Diameter**

**59 1/2"**

**Outlet Diameter**

**30"**

**Height of Hopper**

**30'**

**Capacity**

**60,000 GALLONS**

**Material**

**ALUMINUM**

**Filling Rate**

**200 GALLONS PER MINUTE**

**Discharge Rate**

**100 GALLONS PER MINUTE**

**Electric Motor**

**3/4 HP**

**115/240 VOLTS**

**60 CYCLES**

**3-Phase**

**Lubrication**

**18 GALLONS**

**Grease Type**

**320**

**Grease Supplier**

**NOS**

**Stainless Steel**

**60" X 30'**

**Height of Hopper**

**30'**

**Capacity**

**60,000 GALLONS**

**Material**

**ALUMINUM**

**Filling Rate**

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**30'**

**Capacity**

**60,000 GALLONS**

**Material**

**ALUMINUM**

**Filling Rate**

**200 GALLONS PER MINUTE**

**Discharge Rate**

**100 GALLONS PER MINUTE**

**Electric Motor**

**3/4 HP**

**115/240 VOLTS**

**60 CYCLES**

**3-Phase**

**Lubrication**

**18 GALLONS**

**Grease Type**

**320**

**Grease Supplier**

**NOS**

**Stainless Steel**
History of Oil or Gas Well

Operator: GENERAL EXPLORATION CO.  Field: NORTH LONG BEACH

Well No.: OIL OPERATORS #3, Sec. 13, T. 4S, R. 13W, SB B. & M.

Date: 5-25, 1977  Signed: Robert Greene

4021 N. PACIFIC  213-636-1629  Title: Production Superintendent
(Address)  LONG BEACH  (Telephone Number)
(Principal, 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 plugs, perforation details, sidetracked junk, flowing tests and initial production data.

OIL OPERATORS 3 CONTINUED

Well condition at completion of work:

TD 1st hole: 5450'  TD 2nd hole 5853' (redrilled from 3142' through 8 5/8" casing window 3139' - 3174'); TD 3rd hole, 6540' (redrilled from cement plug 5094')

Casing Detail:
13-3/8" C 765',
8-5/8" C 3139',
5-1/2" C 5964', top 3043' (lap wse), CP 4393'

Perfs 4394-95 wsd
4407' - 4444'; 4458' - 4498'; 4563' - 4616';
4740' - 4765'; 4775' - 4787'; 4792' - 4810';
5397' - 5430'; 5692' - 5707'; 5711' - 5728';
5733' - 5752'; 5794' - 5808'; 5812' - 5827'

Date

Received
Mr. R. L. Graves, Agent
GENERAL EXPLORATION CO.
4021 N. Pacific Place
Long Beach, CA 90806

Long Beach, Calif.
June 17, 1976

Dear Sir:

Your proposal to rework Well No. "Oil Operators" 3, Section 13, T. 48, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County, dated 4/15/76, received 6/15/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment with a minimum 2000 psi working pressure shall be installed and maintained in operating condition during all stages of perforating.

2. Well records, under Sec. 3215 of the Public Resources Code, are received 60 days after recompletion of the well.

RFC:dr

Blanket Bond

5/25/77
Graves/Crowder
Work done history will be filed

HAROLD W. BERTHOLF,
Chief, State Oil and Gas Supervisor

By M.B. Allwright, Deputy
Mr. Robert L. Graves, Agent
General Exploration Co.
4021 N. Pacific Place
Long Beach, CA 90806

Gentlemen:

Dear Sir:

I have received your notices dated April 15, 1976, of
notice of intention to rework Well No. 2 & "Oil Operators" 3


Your notices to rework cannot be considered until a surety bond in the sum of $5,000.00 has been filed for each well. Operations should not be started until the approval of this Division has been received. This will ensure that you have notice of our requirements.

The notices are being returned to you for signatures. Please return these signed notices with the bond.

HAROLD W. BERTHOLF
State Oil and Gas Supervisor

By [Signature]
Deputy Supervisor

Enc.
(2nd request 6-3-76)

OG113 (12-73-GSR1+IM)
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Long Beach Calif. April 15 1976

DIVISION OF OIL AND GAS

In compliance with Section 3263, 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. "Ol 1 Operator 3"

(Cross out unnecessary words)

Lease: Sec. 13, T. 45, R. 13 W., S.B. & M.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. - 6540' PBTD - 5964'

2. Complete casing record, including plugs:

13 3/8" c 765' 
8 5/8" c 3139' (Milled for Window) 
5 1/2", J-55 c 3043'935 964'

Perfs: 4394-95 (W50); 4407-4444'; 4458-4498'; 4562-4616'; 5397-5430'; 5692-5707'; 5711-5728'; 5733-5762'; 5794-5808'; 5812-5827'

3. Last produced.

4/15/76

9.2

14.9

Oil, B/D

Water, B/D

Gas, Mcf/D

The proposed work is as follows:

1. Pull Pump, Rods, & Tubing

2. Perforate following intervals

4740'-4765'

4775'-4787'

4792'-4810'

3. Return well to production

Remarks

4881 Pacific Place

Long Beach

813-434-8025

(Address)

General Exploration Co.

(By Name of Operator)

By Robert Jones

(Telephone No.)
WORK PERFORMED:
Drill _____ Redrill _____ Deepen _____
Plug _____ Alter casing V
Water flood _____ Water disposal _____
Abandon _____
Other ________________________________

STATUS: (Date)
Producing ____________________________
Recomp. prod. V 6-13-68
Water flood __________________________
Water disposal _______________________
Abandoned __________________________
Other _______________________________
MAP AND BOOK NC

RECORDS FILED & DATE: Clerk ___________
Summary (dup.) __________________________
Log & Core (dup.) _________________________
History (dup.) 7/3/68
E-log ________________________________
Radio log _____________________________
D. Survey ____________________________
Other ________________________________
(Check records for signature and correct name of operator or well, S.T.R. and field.)
Location _____ Notice states __________________
_____________________________________
_____________________________________
Elevation _____ Notice states __________________
_____________________________________
Production Reports ______________________
(If production reports not received, make notation and inform Sr. Steno. when rec'd.)
If stimulation or disposal well: Form 121 _____ Folder ______

RECORDS & REQUIREMENTS CHECKED: Eng. ________
Surface inspection _________________________
Data needed ________ Clerk: F 170__
Request records _________________________
Correct records ________ (Specify) F 165__

CARDS NC

BOND: No bond required
Hold Reason _____________________________
Release ______ Date elig. ________ F 150b__
End premium year _______________________
Release requested ________ (Check) Bond superseded ________ (one )
Well abandoned _________________________

FINAL LETTER ________ F 159__
and
FILE CLEARED ________ F 121__

Form 19-A
Pumped 34 bbl. net 24.3° oil and 2 bbl. water with 60 Mcf gas.
Blew down gas off well. Moved in production unit and pulled rods and tubing.
Ran bailer and found fill at 4875'. Bailed sticky mud to 5890'. Installed B.O.P.E.
With bailer found fluid level at 3030' and bottom at 5890'. Pumped 100 bbl. salt
water into casing - equivalent to 1700' inside the 8-5/8" casing. McCullough
jet perforated (omega jets) three holes per foot 5827-5812' and 5808-5794' sticking
the second gun. While working gun loose, fluid surfaced and pressure built up to
900# on lubricator before recovering gun. Closed off preventor, removed lubricator
and tubing stripper, and installed blank flange on top of preventor. Installed
needle bean in flow line from 2" outlet in casing head. Flowed 27 net bbl oil
in 19 hrs. on 14'/64" bean, 640 Mcfd. 860#.

5/3
840 Mcf, 770#, 15'/64", Laid down tubing and rods. Moved out pulling unit.
Well flowed gas with occasional slugs of oil which increased in volume as the
pressure declined. The well was practically dead 6/9 and salt water was
pumped into the well. During the interval from 5/2 to 6/9 the well produced
235 net bbl. of 25.0° oil and 17,000 Mcf. gas. There was no appreciable cut.
Pumped salt water into well at intervals. Well dead.
5/4-6/9
Moved in production unit. Rigged up bailing gate above B.O.P.E. Continued
pumping water into casing as required to keep hole nearly full throughout this
operation. Ran bailer and located fill at 5885'. Rigged up lubricator and
McCullough reperforated two holes per foot: 5752-5733', 5728-5712' and
5707-5697', and perforated three holes per foot: 5430-5397'. Omega jets in
4" steel carrier were used throughout. Ran pump on 2-7/8" tubing to 4312' with
gas anchor extending to 4348'. Ran rods. Moved out unit.
6/10-11
Well pumped water and 50 bbl. oil in 16 hrs with casing pressure building to
90#.
6/13
Pumped 29 bbl. oil and 26 bbl. water, 20#/300-540#.
Pumped 11 bbl. oil and 8 bbl. water, 20#/120-130#, 315 Mcf.
Pumped 22 bbl. oil and 6 bbl. water, 20#/110-120#, 296 Mcf.

WELL CONDITION AT COMPLETION OF WORK:
TD 1st hole 5450', TD 2nd hole 5833' (redrilled from 3142' through 8-5/8" casing
window 3139-3174'), TD 3rd hole 6540' (redrilled from cem. plug 5094').

CASING CONDITION:
13-3/8" C 765'
8-5/8" C 3139'
5-1/2" C 596', top 3043' (lap WSO), CP 4393'. Perfs. 4393-4394' (WSO),
4407-4444', 4458-4498', 4562-4616', 5397-5430', 5692-5707', 5711-5728',
DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR General Exploration Co. of Cal.  FIELD Long Beach

Well No. "Oil Operators" 3  Sec. 13, T. 4S, R. 13W, SB B. & M.

Date July 2, 1968  Signed R. S. Ballantyne, Jr.

417 S. Hill Street  Los Angeles, 90013  628-2156  Title Vice President

(Address)  (Telephone Number)  (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, staking of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

5733-5752', 5794-5808' and 5812-5827'. Plug 5964-5922' w/cem. and 5922-5890' w/sand.

Sidetracked:
8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
5-1/2" C 5446', top 3928' (lap WSO). Bad 4195 and 5107', plgd.
Perf. & plgd. 4080-4158', 4190-4205', 4852-4950', 5140-5180',
5190-5200' and 5306-5355'. Plug 3928'.

DUPLEX NO OIL AND GAS RECEIVED JUL 3 1969

.Http://LOCALHIDGE, CALIFORNIA
Mr. C. G. Willis
417 So. Hill Street
Los Angeles, California 90013
Inglewood, Calif.
April 30, 1968

Agent for GENERAL EXPLORATION COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to alter casing of Well No. 037-06496, "Oil Operators" 3, Section 13 T. 4 S. R. 13 W S.B. & M., Long Beach Field, Los Angeles County, dated Apr. 25, 1968, has been examined in conjunction with records filed in this office.

Records in addition to, or at variance with, those shown in the notice. 5-1/2" cp 4393'. TD 1st hole 5450', TD 2nd hole 5833'.

With reference to your proposal our decision is as follows:

DECISION
THE PROPOSAL IS APPROVED.

WLI: nw

cc Company

No Bond Required

F. E. KASLINE
E. R. MURRAY-AARON, State Oil and Gas Supervisor

By Deputy
DIVISION OF OIL AND GAS
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given before work begins; one copy only

Los Angeles, Calif. April 25, 1968

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" 3

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. 6540'.

2. Complete casing record, including plugs:

(Depts from present KB of 60')
13-3/8" C 765'
8-5/8" C 3139'

Sidetracked:
8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
5-1/2" C 5446', top 3928' (lap WSO). Bad 4195 and 5107', plgd.
Perf. & plgd. 4080-4158', 4190-4205', 4852-4950', 5140-5180', 5190-5200' and 5306-5355'. Plug 3928'.

3. Last produced. 4/25/68

(The date)
34 (Oil, B/D)
2 (Water, B/D)
60 (Gas Mcl/D)

The proposed work is as follows:

1. Take well off production.
2. Starting May 1, 1968, pull rods and tubing.
3. Rig up B.O.P.E. and lubricator and pump 100 bbl. of salt water into casing.
5. Return well to production.

417 S. Hill St., Los Angeles 90013
(Address)
628-2156
(Telephone No.)

GENERAL EXPLORATION COMPANY OF CALIFORNIA

(Name of Operator)

By R.S. Ballantyne, Jr., Vice President

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED
WORK PERFORMED:
Drill ___ Redrill ___ Deepen ___
Plug ___ Alter casing ___
Water flood ___ Water disposal ___
Abandon ___
Other _________________________

STATUS:
Producing ______________________
Recomp. prod. 7-28-67 ___
Water flood ____________________
Water disposal __________________
Abandoned _____________________
Other _________________________
MAP AND BOOK N/C

RECORDS FILED & DATE: Clerk M.T.
Summary (dup.) ____________________________
Log & Core (dup.) 8/3/67 ___
History (dup.) 8/3/67 ___
E-log (2 copies) 3138' - 6536' 8/3/67
Radio log
D. Survey
Other ________________________________
(Check records for signature and correct name of operator or well, S.T.R. and field.)
Location ___ Notice states ________________________
__________________________________________
__________________________________________
__________________________________________
Elevation ___ Notice states ________________________
__________________________________________
__________________________________________
Production Reports ________________________
(If production reports not received, make notation and inform Sr. Steno. when rec'd.)
If stimulation or disposal well:
Form 121 ___ Folder ___

RECORDS & REQUIREMENTS CHECKED: Eng. ___

Surface inspection _______________________
Data needed ________ Clerk:
Request records ______ F 170 ___
Correct records ______ F 165 (Specify) 165A __

CARDS N/C

BOND: No. 1411161 dated 6-27-67
Hold Reason
Release Date elig. 10-17-67 F 150b ___
End premium year ___
Release requested ___ (Check)
Bond superseded ___ (one)
Well abandoned ___

FINAL LETTER F 159 ___
and
FILE CLEARED F 121 ___

Form 19-A
History of Oil or Gas Well

Operator: General Exploration Company  
Field: Long Beach

Well No.: "Oil Operators" 3  
Sec.: 13  
T.: 4 S.  
R.: 13 W.  
S.B.B. & M.

Date: July 31, 1967

Signed: R. S. Ballaintyne, Jr.

417 South Hill St., Los Angeles 90013  
628-2156  Title: Vice President

(Address)  
(Telephone Number)  
(President, Secretary or Agent)

---

It is of the greatest importance to have a complete history of the well. Use this form to report all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailin tests, shooting and initial production data.

---

Note: Depth measurements taken from present K.B. elevation of 60' which is 6' higher than original datum. Ground elevation is 48'.

---

6/30
Moved in, rigged up drilling equipment, pulled and laid down tubing, installed B.O.P.E. (Graham Drilling Company).

7/1-2
Ran 7-5/8" bit and made up 3-1/2" drill pipe. Found top of 5-1/2" liner at 3932'.
Ran Servco section mill, located casing collars at 3190', 3145' and 3101', milled section in 8-5/8" casing from 3139' to 3174'. Opened window to 12-3/4". Ran 284' of 2-3/8" tubing stinger on drill pipe. Cleaned out sand inside 5-1/2" liner to 4165'.
Laid 30-sack class G cement plug with 2% CaCl₂ from 4147'. (Estimated top of plug at 3908'). Laid 70-sack class G plus 20% sand with 0.5% CFR-2 from 3233' with rotating tubing scratchers opposite window. Pulled to 2850' and circulated pipe clean. Held 1200# for 5 minutes - no pressure drop. Found top of cement at 3077' and cleaned out to 3142'.

7/3-13
Drilled 7-5/8" hole to 5833'. 5" Dynadrills were used as follows: 3142-3240', 4257-4378' and 4487-4575'. The interval 4468-4487' was cored.

7/13
Ran Schlumberger I.E.S. 5833-3139' and C.D.M. 5833-3700'. Laid 182 CF (160 sacks class G, 30 sacks sand, 5 sacks salt, 0.5% CFR-2) plug through 461' stinger of tubing on drill pipe from 5460'.

7/14
Ran 7-5/8" bit and hit bridge at 4135', cleaned out to 4174' and lost circulation.
Pulled up inside 8-5/8" casing to 3123' and regained circulation. Ran to top of cement at 4997' and cleaned out to 5012' without circulation. Pulled up again to 3123' and introduced rubber and fibrous lost circulation material into mud system. Regained circulation and ran to 5012' circulating in stages. Drilled out cement to 5094' with full returns.

7/15-18
Drilled 7-5/8" hole to 6008'. A 5" Dynadrill was used from 5094' to 5147'. Ran Schlumberger I.E.S. 6008-6480'.

7/18-20
Drilled 7-5/8" hole to 6540' (T.D.). Ran Schlumberger I.E.S. 6540-6008'.

7/20
Ran to T.D. and conditioned mud. Ran 76 joints of 5-1/2", 15.5#, J-55 liner with Burns liner hanger (2921', including hanger) on 3-1/2" drill pipe. With liner hanging at 5964', (top at 3043') cemented with 743 C.F. 1:1 class G cement pozmix slurry with 2% gel and 0.5% CFR-2 and 10% salt in mix water. 500 gal. mud flush and 20 C.F. water preceded the slurry. Displaced with 530 CF mud (509 CF estimated) and plug was not observed to hit baffle. Pulled stinger up to 2980' and backscuttled 180 CF (127 CF in drill pipe) without cement returns.
History of Oil or Gas Well

Operator: General Exploration Company  
Field: Long Beach  

Well No.: "Oil Operators" 3  
Sec.: 13  
T.: 4 S.  
R.: 13 W.  
S.B.: B. & M.

Date: July 31, 1967  
Signed: R. S. Ballantyne, Jr.

417 South Hill St., Los Angeles 90013  
628-2156  
Title: Vice President

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

7/21
Ran 7-5/8" bit and 8-5/8" casing scraper. Encountered 10' soft cement bridge at 1000' and drilled out same. Pushed plug to top of hard cement at 2832'. Drilled out cement to top of liner at 3043'. Conditioned mud and held 1360# on casing for 5 minutes. Ran 4-3/4" bit and 5-1/2" casing scraper. Drilled out cement inside liner from 3043' to 3083'. Ran to 5922', top of float collar, pushing something (probably rubber liner wiper plug) ahead the last 1000'. Conditioned mud and held 1530# on casing for 5 minutes.

7/22
Ran Cook tester on drill pipe and set packer at 3009' with tail to 3022'. Open 1 hour, 2 minute initial light blow and dead thereafter. Recovered net rise of 45' drilling fluid. Tap test approved by D.O.G. Ran McCullough gamma-bond cement log 5910-3900' and perforated four 1/2" jet holes 4394-4393'. Ran Cook tester on 1411' of 2-7/8" tubing below drill pipe. Set packer at 4366' with tail piece to 4377'. Open 1 hour. Medium, slightly diminishing blow throughout test. Recovered 1470' slightly muddy water down to salty (476 g/g) water.

7/23
Ran Baker shoe squeeze tool on tubing and set packer at 4094' with tail to 4187'. Broke down formation with 3500# and squeezed 33 sacks of 50 sacks class G cement mixed at a final pressure of 3000# through perforations. Found top of cement at 4243' and drilled out cement running out of it at 4425'. Perforated four 1/2" jet holes 4394-4395' with McCullough steel carrier. Ran Cook tester on tubing/drill pipe and set packer at 4366' with tail to 4377'. Open 1 hour-initial 2 minute weak blow and dead thereafter. Recovered a rise of 40' drilling fluid. W.S.O. approved by D.O.G. Ran 4-3/4" bit to 5922' and changed mud over to 67# salt water. Laid down 3-1/2" drill pipe. Ran McCullough 4 jet carrier and perforated four 1/2" jet holes per foot as follows: 5752-5733', 5728-5711' and 5707-5692.

7/25
Ran Guiberson packer on combination string of 2-7/8" tubing and set with bottom of packer at 4337'. Removed B.O.P.E. and rigged up surface equipment. Swabbed well and when pulling from 2200' the sand line pulled out of socket and swab dropped. Opened valve in packer and equalized fluid. Ran overshot but could not recover swab. Installed B.O.P.E., pulled and broached tubing. Recovered swab on bottom.

7/26
Re-ran Guiberson packer as above. Swabbed well working down to 4000'. After swabbing 67 bbl. of water with trace of oil and with well gassing, placed on a 22/64" bean at 9:00 p.m.

7/27
Rigged up lubricator and McCullough perforated four holes per foot with 2-1/8" JRL Ceram-jets as follows: 4616-4562', 4498-4458' and 4444-4407'. Completed perforating at 10:00 p.m.
History of Oil or Gas Well

Operator: General Exploration Company  Field: Long Beach

Well No: "Oil Operators" 3, Sec. 13, T. 4 S., R. 13 W., S.B.B. & M.

Date: July 31, 1967
Signed: R. S. Ballantyne, Jr.

417 South Hill St., Los Angeles 90013
Title: Vice President

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Moved out drilling equipment. Flowed 94 bbl. 25.3° oil, 4.0%, 140#/pkf., 570 Mcf. 103 bbl. 25.2°, 6.5%, 120#/pkf., 555 Mcf.

Casing Record at Completion of Work:
(Depths from present KB of 60') T.D. 6540
13-3/8" C 765'
8-5/8" C 3139'

Sidetracked:
8-5/8" C 3986', top 3174'. Plug 3174' (and open hole up to 3142')
**DIVISION OF OIL AND GAS**

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

Operator: General Exploration Company of Calif. Field: Long Beach

Well No. "Oil Operators" #3 Redrill Sec. 13, T. 45S, R. 170W, S.E. B. & M.

**FORMATIONS PENETRATED BY WELL**

<table>
<thead>
<tr>
<th>Depth To</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of Formation</td>
<td>Bottom of Formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4468'</td>
<td>4487'</td>
<td>21'</td>
<td>12.5</td>
<td>Oil sand, unbroken, firm to soft, mostly fine to medium fine poorly sorted. Locally finely pebbly, light brown with grayish cast on broken surfaces light gold to medium buff fluorescence, pepper and salt on broken surfaces (mud penetration?). In top 0.2' two 1/16&quot; ribbons gray sand at 50-55° under gray spot with pebbles. No fluorescence. Probably related to turbidity bedding. At 4.0', one 1/64&quot; ribbon of non-fluorescent clay at about 40°, could be bedding parting. Dip not reliable. (No samples taken)</td>
</tr>
</tbody>
</table>

**CORE #1**

**DIVISION OF OIL AND GAS**

**RECEIVED**

AUG 3 1967

INGLEWOOD, CALIFORNIA
Mr. C. G. Willis
417 S. Hill Street
Los Angeles, California 90013

Inglewood, Calif.
July 27, 1967

Agent for: GENERAL EXPLORATION CO. OF CALIF.

Dear Sirs:

(037-06496)

Your well No. "Oil Operators" 3, 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 July 23, 1967. Mr. S. Cordova, Engineer, designated by the supervisor was present

from 8:30 p.m. to 9:30 p.m. as prescribed by law; there were also present J. Dedmon, Drilling

Foreman & R. Morgan, Driller

Shut-off data: 5-1/2 in. 15.5 lb. casing was re-cemented through perforations at 4393 ft.
on July 23, 1967 in 7-5/8 in. hole with 50 80-lb. sacks of cement

of which 33 sacks were squeezed away under a final pressure of 3000 psi

calculated to fill behind casing to ----- ft. below surface.

Casing record of well: 13-3/8" cement 765'; 8-5/8" cement 3986', window 3139'-3174', sidetracked @ 3142'; 5-1/2" cement 3043'-5964', cp 4393', perf. 4393' WSO. TD 1st hole 5450',

TD 2nd hole 5833'.

Present depth 6540 ft. cement bridge 5964 ft. to 5922 ft. Cleaned out cmt. 4243 ft. to 4425 ft. for test.

A Cook tester was run into the hole on 2-7/8 in. tubing, with ----- ft. of water-mud cushion, and packer set at 4366 ft. with tailpiece to 4377 ft.

Tester valve, with 5/8 in. bean, was open for 1 hr. and ----- min. During this interval there was a weak blow for 2 minutes & no blow thereafter.

Mr. ________________________________ reported:

MR. S. CORDOVA, ENGINEER, WAS PRESENT AT THE WELL FROM 5:00 P.M. TO 6:00 P.M. ON

JULY 22, 1967 AND MR. L. STANDER REPORTED THAT THE 5-1/2" casing was jet-perforated

with four, 1/2" holes at 4393' for the water shut-off test.

THE ENGINEER NOTED THAT when the tubing was removed, 1470' of watery drilling fluid

and salt water was found above the tester.

MR. S. CORDOVA, ENGINEER, WAS PRESENT AT THE WELL FROM 8:30 P.M. TO 9:30 P.M. ON

JULY 23, 1967 AND MR. DEDMON REPORTED:

1. The 5-1/2" casing was re-cemented as noted above.

2. The 5-1/2" casing was jet-perforated with four, 1/2" holes at 4393'.

THE ENGINEER NOTED:

1. When the tubing was removed, 40' of drilling fluid was found above the tester.

2. The pressure charts indicated the tester tool functioned properly.

THE 5-1/2" SHUT-OFF AT 4393' IS APPROVED.

SC:nw

cc Company

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By ____________________ Deputy
Special Report on Operations Witnessed

No. T 167-669

Inglewood, Calif.
July 27, 1967

Mr. C. G. Willis
417 S. Hill Street
Los Angeles, California 90013

Agent for GENERAL EXPLORATION CO. OF CALIF.

Dear Sir:

Operations at well No. "Oil Operators" 3, Sec. 13, T. 4 S, R. 13 W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on July 22, 1967. Mr. S. Cordova, Engineer, representative of the supervisor was present from 7:30 a.m. to 8:20 a.m. There were also present R. Ballantyne, Engineer & J. Redmon, Drilling Foreman.

Present condition of well: 13-3/8" cam. 765; 8-5/8" cam. 3986', window 3139'-3174', side-tracked @ 3142'; 5-1/2" cam. 3043'-5964'. TD 6540'. TD 1st hole 5450'. TD 2nd hole 5833'.

The operations were performed for the purpose of demonstrating the effectiveness of the seal between the 8-5/8" and 5-1/2" casings.

Mr. Ballantyne reported:

1. A window was milled in the 8-5/8" casing from 3139' to 3174', and the hole was opened to 12-3/4" in that interval.
2. Sand fill was cleaned out of the 5-1/2" casing to 4165'.
3. On July 2, 1967, 30 sacks of cement was pumped into the hole through drill pipe and tubing hanging at 4147', calculated to fill the hole to 3908'.
4. On July 2, 1967, 70 sacks of cement mixed with 20% sand was pumped into the hole through drill pipe and tubing hanging at 3233'.
5. Cement was drilled out of the hole from 3077' to 3142'.
6. A 7-5/8" hole was redrilled from 3142' to 5383'.
7. On July 13, 1967, 160 sacks of cement mixed with 20% sand was pumped into the hole through drill pipe and tubing hanging at 5460'.
8. Cement was drilled out of the hole from 4997' to 5094'.
9. A 7-5/8" hole was redrilled from 5094' to 6540'.
10. On July 20, 1967, 5-1/2", 15.5 lb. casing was cemented from 3043' to 5964' with 743 cubic feet of cement slurry (1:1 pozmix, 2% gel).
11. Cement was drilled out of the 8-5/8" casing to 3043' and the 5-1/2" casing was cleaned out to 5902'.
12. A Cook tester was run into the hole on 3-1/2" drill pipe and packer set at 3009', with tailpiece to 3020'.
13. The tester valve with 5/8" bean was open for 1 hr. During this interval there was a weak blow for 2 minutes and no blow thereafter.

THE ENGINEER NOTED:
1. When the drill pipe was removed, 45' of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED and indicate that no fluid has access to the well from the annulus between the 8-5/8" and 5-1/2" casings.

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By: [Signature]
Deputy
Mr. C. G. Willis
417 S. Hill Street
Los Angeles, California 90013

Agent for GENERAL EXPLORATION CO. OF CALIF.

Inglewood, Calif.
July 5, 1967

Dear Sirs:

Your proposal to redrill Well No. "Oil Operators" 3, Section 13, T. 4 S., R. 13 W., S.B. & M., Long Beach Field, Los Angeles County, dated June 27, 1967 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 present condition of the well is as follows:
1. Total depth. 5450
2. Complete casing record, including plugs:
   13-3/8" C 765', 8-5/8" C 3986' WSO
   5-1/2" C 5446', top 3928', WSO on splice. Bad 4195 & 5107', plgd.
   perf. & plgd. 4190-4205', 4852-4950', 5140-5180', 5190-5200', 5306-5355'.
   Plug 4159'. Perf. 4080-4158'.
3. Last produced. 12/12/66 10 182

PROPOSAL:
"The proposed work is as follows:
1. Move in drilling equipment, pull tubing, install BOP and fill hole with mud.
2. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to 12-3/4" lay cement plug from 4150' to 3900' (sufficient to cover perforations without having to wait and feel for top) and another plug from 100' below section back above top of window and level off plug 2' into section.
3. Sidetrack cased hole through section and drill 7-5/8" hole to approximately 5900'.
4. Run and cement 5-1/2" liner, effect. W.S.O. at lap of 8-5/8" casing and above productive horizon.
5. Complete well."

DECISION
THE PROPOSAL IS APPROVED PROVIDED:
1. Fluid consistent with good drilling practice shall be used, and the column of fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test, after cleaning out below the top of the liner to demonstrate that no fluid has access to the well from the annulus between the 8-5/8" and 5-1/2" casings.
   b. A test of the effectiveness of the 5-1/2" shut-off above the zone to be produced.

W.L.I:uw
cc Company

Bond No. 1411161
Dated 6-27-67

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By

Deputy
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Los Angeles, Calif. June 27, 1967

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" 3

Coral Ave, S. B. B. & M.
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. 5450

2. Complete casing record, including plugs:

13-3/8" C 765'
8-5/8" C 3986' WSO
Plug 4159'. Perf. 4080-4158'.

3. Last produced. 12/12/66
   (Date) 10
   (Oil, B/D) 182
   (Water, B/D) 4
   (Gas)

The proposed work is as follows:

1. Move in drilling equipment, pull tubing, install BOPE and fill hole with mud.
2. Mill out 30-foot section of 8-5/8" casing near 3100', underream the window to 12-3/4" lay cement plug from 4150' to 3900' (sufficient to cover perforations without having to wait and feel for top) and another plug from 100' below section back above top of window and level off plug 2' into section.
3. Sidetrack cased hole through section and drill 7-5/8" hole to approximately 5900'.
4. Run and cement liner, effect W.S.O. at lap of 8-5/8" casing and above productive horizon. 5/4"
5. Complete well.

417 S. Hill Street, Los Angeles

628-2156

GENERAL EXPLORATION COMPANY OF CALIFORNIA

(Name of Operator)

By: E. S. Ballantyne, Vice President

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

71443 R. 42 1978 © SPO
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. 8 & 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: 730 Subway Terminal Building, 417 South Hill Street, Los Angeles 15, Calif.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)
New Operator New Status: PA
Old Operator New Status: No
Request designation of agent: No

Remarks:
- SB
- Jr. H. H. Fussler
- Prod. Dept.
- Conservation Committee

[Signature]

Form 121
INITIALS
DATE
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
Norm—If Transfer Does Not Change Overall Status Enter "No Change"
<table>
<thead>
<tr>
<th>Date Received</th>
<th>Form 100</th>
<th>101</th>
<th>103</th>
<th>New Well Records</th>
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<tbody>
<tr>
<td>Elec. Log</td>
<td>Radio Log</td>
<td>Other Data</td>
<td>Well Summary (100)</td>
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<tr>
<td>Direct. Surv.</td>
<td>Other Data</td>
<td>Clerk</td>
<td>Drillers Log (101)</td>
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<td>Core Record (101)</td>
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<td>Clerk</td>
<td>Well Summary (103)</td>
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<tr>
<td>Prod. Repts.</td>
<td>Clerk</td>
<td>History (103)</td>
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<tr>
<td></td>
<td></td>
<td>Elec. Log</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMPLETED PRODUCING ON** 12-10-57

**ENGINEER**

**ABANDONED ON**

**BOND** Release _____ Date Elig. _____ 150b _____

End Prem. year ____ Release Requested ____ Superseded ____

Aband. ___________ Redrill ______

HOLD BOND _____ Reason ___________ Deepen ______

_________ Final Letter Eng. Abandon ______

Data Needed ___________ Alter Csg. ______

Plug ______
WELL NO. Oil Operators #3
FIELD Long Beach
COUNTY 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. Hoist - Contract (Tools)

December 7, 1959

(PERIOD ENDING)

NOTE (INEFFECTIVE CASING)

CHARGE: BR-AFE 59359 Job 540
PROPOSED WORK: Add perforations in the Alumitos Zone.
PRODUCTION BEFORE WORK: Idle
ZERO POINT FOR THIS JOB: 9.1' above concrete pad.

Casing Record at Start of Work:

TD 4076' : Dpd 5450' : Flug 4985'
13-3/8' C 765'
8-5/8' C 3961' W80
11-1/2' L-4095' lac. - 89' 8' F, 8' S. Filled.
1518' 5-1/2' F & C 5446' : Bad 4195 & 5107'.
'80 test on splice OK.
bullet pt 4190-4205, 4252-4950'.
5 plgd 5240-5280-5190-5220,
5306-5355'.

Casing Record at Completion of Work:

TD 4076' : Dpd 5450' : Flug 4159'
13-3/8' C 765'
8-5/8' C 3986' W80
11-1/2' L-4075' lac. - 89' 8' F, 8' S. Filled.
1518' 5-1/2' F & C 5446' : Bad 4195 & 5120'.
Flgd. 80 test on splice OK.
bullet pt & plgd 4190-4205-4352-4590'.
5240-5280-5190-5220-5306-5355'.

Contractor moved in and rigged up. Pulled rods and pump. Dia-Loyed tubing.

Pulled tubing. Strung in with 2-5/8' Cavins sand pump to 4201', top of fill. 4-5/8' impression block stopped at 3927'. 4-1/2' block stopped at 3927'. 3-3/4' block stopped at 3927'. Ran in with 2-5/8' Cavins sand pump, went to 4201'. Fluid level at 500'.

Ran in with 1-7/8' x 4-1/8' x 2.59' Baash-Hoss tapered mill on 3-1/2' bumper sub on 2-1/2' tubing on 3' tubing. Ran in to top of liner at 3927'. Rips did not appear to be bad. Ran in to 4186' where mill stopped. Pulled back up to top of liner and worked mill through liner hanger repeatedly. Pulled out. Ran L-W Cametox and Chlorinilog.

Finished running L-W Cametox and Chlorinilog.

Crew off.

Ran in with 7/8' impression block to top of liner at 3928'. No impression. Heran impression block to top of liner, bailed sand and shale at 4201' with 2-5/8' Cavins sand pump. Boiler sticking badly at 4201'. Recovered small loads. Bright spot on bottom of boiler indicates possible tight pipe. Dumped 13' sacks construction cement at 4201' at 2:30 p.m. Felt for cement at 5:30 p.m. Top of cement at 4200'.

Names of drillers/head well fullers:

California Production Service - Contractor

Vaughn L. Moyer
District Engineer
<table>
<thead>
<tr>
<th>NO.</th>
<th>TOURS</th>
<th>DATE</th>
<th>DEPTH</th>
<th>EFFECTIVE DEPTH</th>
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<tr>
<td>1</td>
<td>12-8</td>
<td>5450</td>
<td>Flug 4200</td>
<td>Ran in with Cavins off bottom cement dump bailer and dumped 2 sacks construction cement at 4200' at 9:30 a.m. Felt for top of cement with bailer jars at 12:30 p.m. No fill. Dumped 2 sacks construction cement at 4200' at 1:30 p.m. Felt for top of cement at 4:30 p.m. No fill. Dumped 2 sacks of construction cement at 4200' at 5:45 p.m.</td>
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<tr>
<td>1</td>
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<td>'H'</td>
<td>4159</td>
<td>Ran in with jars and found top of cement at 4200'. Mixed 4 sacks of construction cement and dumped in 2 runs at 4200'. Finished dumping cement at 9:00 a.m. Felt for plug at 12:30 noon. Located top of plug at 4174'. Rigged up to shoot.</td>
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<td>2</td>
<td>12-10</td>
<td>'H'</td>
<td>4159</td>
<td>Perforated 5-1/2&quot; liner from 4158-4080' with two 1/2&quot; bullets per foot. Used L-14 4&quot; x 50 shot wire line gun. Checked collars and reset odometer according to collars. Located top of plug at 4159'. Fluid level stayed at 540' during shooting job. No blow. All guns came from hole covered with oil. Had 2 scattered missfires. Checked bottom at 4159' after shooting. Removed blow-out preventer. Ran in and landed tubing. Ran rods. Put well on production. Contractor moved out.</td>
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**PRODUCTION DATA**

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<td>1020' Fluid over pump by Sonie</td>
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<td>80</td>
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</table>

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

California Production Service - Contractor

---

*Vaughan L. Hager*

District Engineer
Cordova/Ballantyne 7-2-67
Solid sand at 4000'.
O.K. to p/c 4000' - 3878', using 100% excess per conversation with Ingram on 6-29-67.

Ballantyne/Ingram 6-29-67
Will use 100% excess on zone plug in lieu of feeling for tip - ok, we'll
Mr. C. F. Bowden  
P. O. Box 7600  
Los Angeles 54, California

Agent for UNION OIL COMPANY OF CALIFORNIA

Inglewood, Calif.  
October 22, 1959

DEAR SIR:

Your proposal to alter casing Well No. "Oil Operators" 3 ,

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

dated Oct. 19, 1959, received Oct. 21, 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.
Plugged with cement 5446'-5428' and 5101'-4984'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth, 4075' Dpmd 5450' Plug 4985'
2. Complete casing record,
   13-3/8" C 765'
   8-5/8" C 3986' WSO
   116' 6-5/8" H 4975' incl 89' pfs, pulled.
   1518' 5-1/2" P & C 5446'. Bad 4195' & 5107'.
   WSO test on splice OK.
   Bullet pf. 4190-4205' & 4852-4950'.
   Bullet pf. & plgd. 5140-5190', 5190-5200', 5306-5355'.
3. Last produced.

PROPOSAL
"The proposed work is as follows:
1. Pull rods and tubing.
2. Check hole open to top of plug at 4985'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" liner from 4080-4185' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 4985'.
6. Run rods and tubing.
7. Test on production."

DECISION
THE PROPOSAL IS APPROVED.

E. H. MUSSER, State Oil and Gas Supervisor

By W. C. BAILEY, 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

Inglewood, Calif.

Blanket

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

The present condition of the well is as follows:

1. Total depth. 4076' Dpnd 5450' Plug 4985'

2. Complete casing record.

13-3/8" C 765'
8-5/8" C 986'. WSO
1161-6-5/8" H 6075'. Incl. 391' p.s., pulled.
1518' 5-1/2" F & C 5446'. Bad 4195' & 5107'.
WSO test on splice OK.
Bullet pf. 4190-4205' & 4852-4950'.
Bullet pf. & plgd. 5140-5180', 5190-5200', 5306-5355'.

3. Last produced. April 1958

2 R/D (Net Oil)
23.7o (Gravity)
98.0% (Car)

The proposed work is as follows:

1. Pull rods and tubing.
2. Check hole open to top of plug at 4985'.
3. Check condition of 5-1/2" liner with impression blocks.
4. Perforate 5-1/2" liner from 4080-4185' with two 1/2" bullets per foot.
5. Check hole open to top of plug at 4985'.
6. Run rods and tubing.
7. Test on production.

Union Oil Company of California

By Vaughn S. Magruder, Division Engineer

Address one copy of Notice to Division of Oil and Gas in District Where Well is Located
# Oil Operators #3

**Long Beach (Field)**

**Los Angeles (County)**

**13-4-8.8 S.D.**

## REPAIR REPORT

**Prod. Hole - Casing**

**July 8, 1953**

**

<table>
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<tr>
<th>NO.</th>
<th>TOUR</th>
<th>DATE</th>
<th>DEPTH</th>
<th>EFFECTIVE DEPTH</th>
<th>REMARKS</th>
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<td>Plug 4955</td>
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<td>Plug 4955</td>
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</table>

### PROPOSED WORK

- CC to bottom perforations with plug from 5107' to 5000'. Test on production. If upper perforations not causing sand, gun perforate 5-1/2" casing from 4950' to 4852' with four 1/2" holes/ft.

### PRODUCTION BEFORE REPAIR

- 57 B/D Gross - 14 B/D Net - 75.0% Cut

### ZERO POINT for this job: 9' 1" above concrete pad.

### CASING RECORD AT COMPLETION OF WORK:

- 4976' DIA 5450' Plug 4955'
- 4936' DIA 5450' Plug 4955'
- 4950' DIA 5450' Plug 4955'
- 4950' DIA 5450' Plug 4955'
- 4950' DIA 5450' Plug 4955'
- 4950' DIA 5450' Plug 4955'

### California Production Service, Contractors moved in and set up equipment. Tested tubing - OK. Pulled tubing and rods. Tubing measured 4179.72'. Ran 2-5/8' Cavin's ball. Checked fill at 4936'. Fluid level at 3605'. Cleared out to 4955'.

### Continued cleaning out sand to 4935'. Installed Shaffer blow-out preventer. Ran in with Lane-Wellie 1" x 13" type A-2 bullet gun, shot four 1/2" holes/ft from 4950' to 4835'. Had light blow and rapid fluid rise. Fluid level at start of shooting 4925'; fluid level at finish 3220'.

### Exit off casing pressure. Ran 2-5/8' Cavins sand pump. Checked fluid at 4963'. Fluid level at 3170'. Cleared out to 4955'. Ran rod and landed 4788' of mixed 2-1/2" and 3" tubing. Ran wire rod and pump. Contractor moved out July 8, 1953. Well on production at 5130 P.M.
<table>
<thead>
<tr>
<th>No.</th>
<th>Tours</th>
<th>Date</th>
<th>Depth</th>
<th>Effective Depth</th>
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<tr>
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<td>7-17</td>
<td>0</td>
<td>4950</td>
<td>Cleaned out H75-4751 with 3-1/8 Cavins sand pump.</td>
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<td>4950</td>
<td>Cleaned out H757-4820 with 3-1/8 Cavins sand pump.</td>
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<td>7-19</td>
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<td>4950</td>
<td>Cleaned out H820-4985 with 3-1/8 Cavins sand pump. Recovered shale and pieces of iron. Fluid level 3300. Ran tubing to 4200. Cleaned out of bottom with 3-1/8 Cavins sand pump. Ran tubing to 1900.</td>
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<td>Ran rods. Put well on prod.</td>
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**Production Data**

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**Notes**

- Union Oil production crew pulled rods and tubing.
- Cleaned out H725-4751 with 3-1/8 Cavins sand pump.
- Cleaned out H757-4820 with 3-1/8 Cavins sand pump.

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

- Chas. F. Bowden

Union Oil Prod. Crew 7-16-53 to 7-21-53
Date Received: 7-3-53

Form 100

101

103

Elec. Log

Radio Log

Direct. Surv.

Other Data

Steno.

Location

Elevation

Steno.

EB

ENGINEER

BOND

Release

Date Elig.

150b

EB

End Prem. Yr.

Release Requested

Superseded

Aban.

HOLD BOND

Reason

Redrill

Deepen

Plug

Alter Csg.

Data Needed

Final Letter

Eng.

Abandon

7-6-53

10
### CHARGE: B.R. - A.P.E. 51526 Job 231-D

#### PROPOSED WORK:
- Plug back all existing perforations in R, S and T zones and test well on production.

#### PRODUCTION BEFORE REPAIR:

#### ZERO POINT FOR this job:
- 9 1/2".

#### CASING RECORD AT START OF WORK:
- Test 1976' Down 5430' - 13-3/8" C 765'
- 8-5/8' C 3965' WSO: 3128 6-5/8" H 4675'
- Five 391 perforations, pulled: 1518' 5-1/2"
- F & C 5446': 5019' & 5107'
- WSO test on splice OK: Bullet pf 4190-4205'
- 5140-5160', 5190-5200', 5200-5355'

#### CASING RECORD AT COMPLETION OF WORK:
- 5200-4975': Dpx 5430' - 13-3/8" C 765'
- 8-5/8" C 3965' WSO: 3128 6-5/8" H 4675'
- Five 391 perforations, pulled: 1518' 5-1/2" F & C 5446': 5197' & 5107': WSO test on splice OK: Bullet pf 4190-4205', Bullet pf & pkg 5140-5160', 5190-5200', 5200-5355'

---

**California Production Service, Contractor,** moved in and installed blow-out preventer. Checked bottom with 2-5/8" Cavins sand pump at 5101'. Fluid level at 5101'. Ran in with 7-1/2" impression block. Checked 5-1/2" liner hanger at 3925'. Ran in with 4" impression block - went to 5101' - no marks.

- Ran in with Cavins continuous dump bottom bailer. Dumped 11 bags of construction cement in 5-1/2" casing, starting at 5101'. Let stand 4 hours. Felt top of plug at 4933'.
- Ran in with 2-5/8" Cavins sand pump. Bailed loose cement at 4933' to hard cement at 4985'. Witnessed and approved by Division of Oil and Gas. Started running tubing.
- Ran tubing and started running rods.

**Finished running rods. Put well on pump.** Contractor released.

#### PRODUCTION DATA

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<th>Cut</th>
<th>Grav.</th>
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**AMES OF DRILLERS/HEAD WELL PULLERS:**

*California Production Service, Contractor.*

---

**Chas. F. Bowden**

**DISTRICT ENGINEER**
Special Report on Operations Witnessed

DEAR SIR:

Operations at your well No. "Oil Operators" 3 Sec. 13, T. 4 S, R. 13 W, S B, B. & M., Long Beach Field, in Los Angeles County, were witnessed by J. B. Thomas, Inspector, representative of the Supervisor, on June 10, 1953. There was also present R. J. Wilson, Driller; Ray Nathan, Helper.


W.S.O.: 54th line, 3928' - 5446', perf. 4190' - 4205', 5140' - 5160', 5190' - 5200', and 5306' - 5355'. T.D. 5450', plugged with cement 5446' - 5426' and 5101' - 4984'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5101' to 4984' in the process of plugging back.

The inspector arrived at the well at 10:45 a.m. and Mr. Wilson reported: that on June 9, 1953, 11 sacks of cement was dumped into the hole beginning at 5101'.

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4984' and brought up a sample of set cement.

The test was completed at 11:30 a.m.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 4984' ARE APPROVED.

JHT: OH

cc Long Beach

Mr. C. F. Bowden, Div Engineer
Union Oil Co of California
9545 South Santa Fe Springs Road
Whittier, California

R. D. BUSH
State Oil and Gas Supervisor
By: [Signature] Deputy
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

Los Angeles 15  Calif.  May 28  1953

Mr. W. S. Eggleston
Los Angeles 17  Calif.

Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR:

Your proposal to plug & alter casing Well No. 3

Section 13, T. 4 S, R. 13 W S B. & M., Long Beach Field, Los Angeles County,
dated May 26 1953, received May 27 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 5446'-5428'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth - 4076'
   Deepen - 5450'

2. Complete casing record.
   13-3/8" C 765'
   8-5/8" C 3986' W.S.O.
   1116-6-5/8" H 4075'-inc. 89' perf., pulled
   1518'-5-1/2" F & G 5446', Bad 4195' & 5107'
   W.S.O. test on splice O.K.
   Bullet perf: 4190-4205, 5140-5180, 5190-5200, 5306-5355'

3. Last produced. April 1953
   (Date) 13 B/D 22.8  67.3%  (Net 011) (Gravity) (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Plug 5-1/2" casing with cement from 5107' to 5000'.
2. Test on production.
3. Gun perforate 5-1/2" casing from 4950-4852'.
4. Test on production."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT
1. Plugging operations shall start from as deep as possible.
2. THIS DIVISION SHALL BE NOTIFIED TO WITNESS the location and hardness of cement plug at 5000'.

JLW:OH
cc W.S. Eggleston
   C.F. Bowden
   Long Beach

R. D. BUSH
State Oil and Gas Supervisor
By. Deputy

Blanket bond.
DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

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

Whittier       Calif.     May 26       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, drilling, plugging or altering casing at Well No. Oil Operators #3 (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. = 4076'
   Deepen = 5450'

2. Complete casing record.
   13-3/8" C 765'
   8-5/8" C 3986' W.S.O.
   141-1/2-5/8" H 4975'-89' perforated
   1518' 5-1/2" P & C 5446', Bad 4195' & 5107'
   W.S.O. test on splices O.K.
   Bullet perf: 4190-4205, 5140-5180, 5190-5200, 5306-5355'

3. Last produced.        April 1953        13 B/D        22.8°        67.3%
                        (Date)         (Net Oil)      (Gravity)     (Cut)

The proposed work is as follows:

1. Plug 5-1/2" casing with cement from 5107' to 5000'.
2. Test on production.
3. Gun perforate 5-1/2" casing from 4950-4852'.
4. Test on production.

MAP BLOCK CARDS BOND
114 121

UNION OIL CO. OF CALIFORNIA

(Name of Operator)

By C. S. Bowden, Division Engineer.

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

Date Received 7-29-48 Form 100 ______ 101 ______ 103 ______

Elec. Log ___________________ Radio Log ___________________

Direct. Surv. ___________________ Other Data ___________________

Location ___________________

Elevation ___________________ Steno. ___________________

ENGINEER

BOND Blanket Release Date Elig. 150b ______

End Prem. Yr. Release Requested Superseded Aban. ______

HOLD BOND Reason ______

Data Needed ______

________________________ Final Letter Eng. SWK ______

8-2-48
Date Received: 5-1-48
Form: 100

Elec. Log: __________ Radio Log: __________
Direct. Surv.: __________ Other Data: __________
Location: __________
Elevation: __________ Steno: Scott

BOND: Blank Release: __________ Date Elig.: __________ 150b __________

HOLD BOND: __________ Reason: __________

Data Needed: __________

Final Letter Eng.: __________

Final Letter: __________

5-13-48
# Repair Report

## Union Oil Company

### History of Oil or Gas Well

**REPAIR REPORT**

**Portable Hoist**

**February 21, 1948**

<table>
<thead>
<tr>
<th>NO.</th>
<th>TOURS</th>
<th>DATE</th>
<th>DEPTH</th>
<th>EFFECTIVE DEPTH</th>
<th>REMARKS</th>
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<td></td>
<td>1</td>
<td>2-13</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>2-10</td>
<td>5450</td>
<td>Plg 5428</td>
<td></td>
</tr>
<tr>
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<td>2</td>
<td>2-11</td>
<td></td>
<td>B.P. 1318</td>
<td></td>
</tr>
<tr>
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<td>2</td>
<td>2-12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2-13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

- Proposed work:
  - Plug off present perforation at temporary bridge plug, Test H-I Zone.
  - November, 1947 8 B/D net, 23.0° - 51.1%
- Rigged up, Pulled rods and tubing, Cleaned out from 5393' to 5426' with 3-1/8" Cavins bailer, Ran 4-1/2" impression block to 51,26'.
- Set Baker bridge plug at 4327' - no fluid above plug, Dumped one sack cement at 4327', Installed 5" control gate, Checked top of cement at 4318', Dumped in 500 gallons of stove oil, Gun perforated 5-1/2" liner from 4190' to 4205' with 2 Montalough 7/8" holes per foot, Fluid level rose from 3918' to 3050' during shooting, Had a good gas blow.
- Located top of sand at 4283', Cleaned out with 3-1/8" bailer to 4303', Ran 4-1/2" impression block to 4210', Ran 2-1/2" tubing to 4177', Ran rods.
- Hooked up flow line, Put well on pump.

### Production Data

<table>
<thead>
<tr>
<th>Hours</th>
<th>Gross</th>
<th>Net</th>
<th>Cut</th>
<th>Grav.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>24h</td>
<td>41</td>
<td>19</td>
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<td>23.0</td>
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<tr>
<td>24h</td>
<td>19</td>
<td>8</td>
<td>56.0</td>
<td>23.0</td>
<td></td>
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<tr>
<td>24h</td>
<td>10</td>
<td>4</td>
<td>56.0</td>
<td>23.0</td>
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<tr>
<td>24h</td>
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<td>56.0</td>
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<tr>
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<td>22.8</td>
<td></td>
</tr>
<tr>
<td>24h</td>
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<td>2.2</td>
<td>22.8</td>
<td></td>
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<tr>
<td>24h</td>
<td>21</td>
<td>21</td>
<td>2.2</td>
<td>22.8</td>
<td></td>
</tr>
</tbody>
</table>

**Lowered with changed pump,**

**MAY 1 - 1948**

**LOS ANGELES, CALIFORNIA**

---

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

Santa Fe Springs Production

**John R. Finner**

**District Engineer**
# Oil Operators #3

**UNION-OIL COMPANY**

**DIVISION OF OIL AND GAS**

**Long Beach**

**Los Angeles**

**REPAIR REPORT**

**Portable Hoist**

**History of Oil or Gas Well**

**Field**

**(Tools)**

**SEC. **

**(County)**

**T. **

**R. **

**B. & M.**

**(Period Ending)**

**April 15, 1948**

**REMARKS**

---

**Proposed Work:** Clean out bridge plug and return to production.

Production: 20 B/D net - 22.8° - 2.25

Pulled rods and tubing. Shut well in.

---

**Cleaned out from 4308' to 4316' with 2-5/8' bailer. Fluid level 3100'.**

**Ran in with chisel shoe and drilled out bridge plug. Cleaned out with bailer to 5428'. Recovered metal and sand.**

**Checked hole open to bottom. Ran tubing and rods. Put well on production.**

---

**Production Data**

<table>
<thead>
<tr>
<th>Hrs.</th>
<th>Gross</th>
<th>Net</th>
<th>Cut</th>
<th>Gray</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>27</td>
<td>27</td>
<td>1.1</td>
<td>22.8</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>30</td>
<td>30</td>
<td>1.1</td>
<td>22.8</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>30</td>
<td>30</td>
<td>1.1</td>
<td>22.8</td>
<td></td>
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<tr>
<td>24</td>
<td>48</td>
<td>47</td>
<td>1.1</td>
<td>22.8</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>30</td>
<td>30</td>
<td>1.5</td>
<td>22.8</td>
<td></td>
</tr>
</tbody>
</table>

Pulled rods and tubing.

Cleaned out sand from 5368' to 5428' with 2-5/8' Cavins bailer. Ran thr.

Ran rods & pump. Put well on prod.

---

**MAP** | **BOND** | **FORMS**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>121</td>
<td></td>
</tr>
</tbody>
</table>

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

---

**John R. Fraser**

**District Engineer**
Hume Oil Co.,

"Oil Operators" #3

To perf. 4205' - 4190'

later on if not enough to perf. up as high as 4050'

To temp. bridge off lower perf. and if o.k. to take bottom zone together
Report on Proposed Operations

No. P 1-44335

Los Angeles 15, Calif. December 26, 1947

Mr. W. S. Eggleston

Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to alter casing Well No. "Oil Operators" 3, Section 13, T 4 S, R 13 W., S.E, B. & M., Long Beach Field, Los Angeles County, dated Dec. 22, 1947, received Dec. 23, 1947, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:
"The present condition of the well is as follows:
1. Complete casing record.
   Total depth 5450' - Plug 5428'
   13-3/8" 0 765'
   8-5/8" 0 3986'
   1518' 5-1/2" P & G 5446' Perf. 5140-5180', 5190-5200' & 5306-5355'

2. Last produced Nov., 1947 8 B/D Ave. 23.0' 64.1'
   (Date) (Net Oil) (Gravity) (Cut)"

PROPOSAL:
"The proposed work is as follows:
1. Plug off perforations from 5140' to 5355' with a bridge plug.
2. Test B-I Zones by stages from 4200' to 4500'.
3. If O.K., knock out bridge plug and put on production."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT
1. It is understood that the bridge plug above the perforations 5355'-5140', does not fulfill the requirements of this division for the abandonment of the lower portion of the hole.
2. This division shall be kept informed of the results of tests after each stage of perforating, and will designate any requirements at that time.

SHR: OH

cc- John R. Fraser
   Long Beach

R. D. BUSH
State Oil and Gas Supervisor
By: NA MANEVER
Deputy

Blanket bond.
Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well
This notice must be given fifteen days before work begins when possible

Whittier           Calif.        Dec. 22        1947

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 #3
(Cross out unnecessary words)

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

Long Beach           Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 5450' - Plug 5428'
   13-3/8" G 765'
   8-5/8" G 3986'
   1518' 5-1/2" P & G 5446'    Perf. 5140-5180', 5190-5200' & 5306-5355'

2. Last produced
   Nov., 1947  8 B/D Ave.  23.0°  64.1%
   (Date)      (Net Oil)     (Gravity)   (Cut)

The proposed work is as follows:

1. Plug off perforations from 5140' to 5355' with a bridge plug.
2. Test H-I Zones by stages from 4200' to 4050'.
3. If O.K., knock out bridge plug and put on production.
**Subsequent Work Report**

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

**Well No.:** Oil Operators #3  
**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 December 31, 1937, was filed.

**Date:** September 11, 1941  
**Signed:** Henry E. Winter  
**Title:** Division Engineer  
(President, Secretary or Agent)

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

### Casing Record at Start of Work:

<table>
<thead>
<tr>
<th>Depth</th>
<th>Eff. Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-31</td>
<td>4076</td>
<td>Killed well with mud.</td>
</tr>
<tr>
<td>8-2</td>
<td>4080</td>
<td>Drilled through bottom of liner and ahead to 4080' with 5-5/8&quot; bit. Cut 6-5/8&quot; liner at 3976'.</td>
</tr>
<tr>
<td>8-3</td>
<td>4080</td>
<td>Recovered 18' 6-5/8&quot; liner. Ran in double cup inverted 6-5/8&quot; casing swab, changed from mud to oil, and washed perforations.</td>
</tr>
<tr>
<td>8-6</td>
<td>4070</td>
<td>Recovered remaining 98' of 6-5/8&quot; liner, changed from oil to mud, and drilled ahead with 7-5/8&quot; rock bit.</td>
</tr>
<tr>
<td>8-21</td>
<td>5131</td>
<td>Drilled ahead with 7-5/8&quot; bits to 5131'. Hole was directionally controlled, using whiststocks at 4170', 4300', 4844', 4890', and 4977'. Ran Schlumberger survey.</td>
</tr>
<tr>
<td>8-25</td>
<td>5450</td>
<td>Continued drilling directionally controlled hole with 7-5/8&quot; bits to 5450'. Coordinates of hole at 5449': 90.29' S., and 48.45' E., from the surface location of the hole. Ran Schlumberger survey. Ran in 1517.97' of new 5½&quot; Grade &quot;C&quot;, 17'/ casing, including 83.44' new Grade &quot;A&quot;, and 1.86' Burns 8-5/8&quot;x5-1/2&quot; liner hanger on top. Froze and cemented at 5446' with 285 sacks allow Colton cement.</td>
</tr>
<tr>
<td>8-29</td>
<td>54.28'</td>
<td>Found top of cement at 3685' and cleaned out cement to 5428'. Changed from mud to water and bailed fluid to 3011'. After standing 8 hours, found top of fluid at 3011', with no rise. Test was witnessed by D.O.C., and splice of liner approved. Changed from water to oil.</td>
</tr>
</tbody>
</table>

### Casing Record at End of Work:
DIVISION OF OIL AND GAS

Subsequent Work Report

Operator: Union Oil Company of California
Field: Long Beach

Well No: Oil Operators #3, 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 December 31, 1937

Signed: [Signature]
Date: September 11, 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.

### PRODUCTION DATA

<table>
<thead>
<tr>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>% Cut</th>
<th>Hours Pumped</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>123</td>
<td>22.3</td>
<td>15.5</td>
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<tr>
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<td>99</td>
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<td>23.1</td>
<td>8.6</td>
<td>24</td>
</tr>
</tbody>
</table>

### MEASUREMENT DATUM

All measurements taken from top of rotary table, which is 22" above top of derrick floor. Top of derrick floor is 5' 1" above top of cement cellar, or 9' 1" above floor of cellar.
## Log and Core Record of Oil or Gas Well

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

**Well No.:** Oil Operators #3  
**Sec.:** 13  
**T.:** 4-3  
**R.:** 13-W  
**S.B.:** B. & M.

### Formations Penetrated by Well

<table>
<thead>
<tr>
<th>Depth to Top of Formation</th>
<th>Drilled or Cured</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4076</td>
<td>Drilled</td>
<td></td>
<td>Sand and shale</td>
</tr>
<tr>
<td>4723</td>
<td></td>
<td></td>
<td>Sand with streaks of shale</td>
</tr>
<tr>
<td>4732</td>
<td></td>
<td></td>
<td>Sand and shale</td>
</tr>
<tr>
<td>4959</td>
<td></td>
<td></td>
<td>Shale</td>
</tr>
<tr>
<td>4967</td>
<td></td>
<td></td>
<td>Sand and shale</td>
</tr>
<tr>
<td>5278</td>
<td></td>
<td></td>
<td>Shale</td>
</tr>
<tr>
<td>5305</td>
<td></td>
<td></td>
<td>Sand and shale</td>
</tr>
</tbody>
</table>

**Total Depth 5450'**
## UNIOIL COMPANY OF CA
### CORE RECORD

**Location:** Soc. 13, T. 4-S, R. 11-W, S.B. B&B

<table>
<thead>
<tr>
<th>Date</th>
<th>Core No.</th>
<th>Driller, Size &amp; Type</th>
<th>From</th>
<th>To</th>
<th>Total Recovery</th>
<th>Shale</th>
<th>Oil Sand</th>
<th>Gray Sand</th>
<th>Shell</th>
<th>Description of Core</th>
</tr>
</thead>
</table>

*NO CORES TAKEN*

_Signed:_ Henry E. Winter
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 43 N., R. 13 W., Long Beach, B. & M., as herewith enumerated by well numbers.

R. D. BUSH, State Oil and Gas Supervisor

[Signature]
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40031

Los Angeles, Calif. September 10, 1941.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS\(^3\) Sec. 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by James T. Carriel, Inspector, representative of the supervisor, on August 29, 1941. There was also present R. H. Winter, Engineer, and J. Kewich, Drilling Foreman.

Casing Record: 13-3/8" cen. 765'; 8-5/8" cen. 3936'; Junk None.

M.S.O.: 5-1/2" cen. 3926' - 5426'; T.D. 5450', plugged with cement 5450' - 5428'.

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 6:30 P. M. AND MR. WINTER REPORTED THE FOLLOWING:
1. All of the 6-5/8" casing was recovered.
2. A 7-5/8" rotary hole was drilled from 4075' to 5450'.
3. On August 25, 1941, 1518' of 5-1/2" - 17 lb. casing was cemented at 5446' with 285 sacks of Slow Colton cement.
4. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3685' to 3938' and from 5226' to 5426'.
5. On August 29, 1941, at 10:00 a.m., the fluid was bailed to 3011'.

THE INSPECTOR NOTED THE FOLLOWING:
1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open to 5428'.

The test was completed at 7:20 p.m.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT NO FLUID HAS ACCESS TO THE WELL BETWEEN THE 8-5/8" AND 5-1/2" CASINGS.

cc- R. H. Winter
Long Beach
JGC:OH

R. D. BUSH
State Oil and Gas Supervisor

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

Report on Proposed Operations

No. P-136673

Los Angeles, Calif. July 22, 1941.

Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 3, Section 13, T. 34 S., R. 13 W., S. B. O. & M., Long Beach Field, Los Angeles County, dated July 22, 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 4076ft
13-3/8" C 745'1"
8-5/8" C 3986' O.K.
116' 6-5/8" H 4075', Inc. 89' perf.
Last production, June, 1941 - 764 oil, 9,521 water - 30 days.
It is desired to deepen to the "R-S" & "T" Zones."

PROPOSAL:
"The proposed work is as follows:
1. Pull 6-5/8" liner.
2. Deepen to approximately 5400 ft.
3. Cement solid 5-1/2" blank liner with top at approximately 3940 ft.
4. Test splice by Division of Oil & Gas.
5. Gun perforate "R-S" & "T" Zones as determined from electrical log.
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.

cc: R. Z. Winter
Long Beach

R. D. BUSH
State Oil and Gas Supervisor

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

Santa Fe Springs, Calif. July 22, 1941

DIVISION OF OIL AND GAS
Los Angeles, Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing in the well No. Oil Operators #3
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 4,076'
13-3/8" C 765'
8-5/8" C 3986' O.K.
116' 6-5/8" L 4075', inc. 89' perf.

Last production, June, 1941 - 764 oil, 9,521 water - 30 days
It is desired to deepen to the "R-S" & "T" Zones.

The proposed work is as follows:

1. Pull 6-5/8" liner.
2. Deepen to approximately 5400 ft.
3. Cement solid 5-1/2" blank liner with top at approximately 3940 ft.
4. Test splice by Division of Oil & Gas.
5. Gun perforate "R-S" & "T" Zones as determined from electrical log.
6. Test on production.

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)
By... Division Engineer.
**DIVISION OF OIL AND GAS**

**LOG OF OIL OR GAS WELL**

Operator: **Union Oil Company of California**  
Field: **LONG BEACH**

**Well No.:** 3  
Sec.: 13  
T.: 4-6  
R.: 13-W  
S.B.: B & M  
Location: 582' N-Wly along the center line of the Pacific Electric Railway right of way from the center line of Bixby Road, projected and thence 271' Elevation: 53.98

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:** Dec. 31, 1937  
**Signed:**  
**Title:** District Engineer  
**(President, Secretary or Agent)**

**Commenced drilling:** Nov. 5, 1937  
**Completed drilling:** Dec. 5, 1937  
**Drilling tools:** Rotary

**Total depth:** 4076  
**Plugged depth:**

**Junk:**

**Commenced producing:** Dec. 5, 1937  
**Flowing/gas line/pumping:** (cross out unnecessary words)

<table>
<thead>
<tr>
<th>Clean Oil bbl. per day</th>
<th>Grav. Clean Oil</th>
<th>Per Cent Water including emulsion</th>
<th>Gas Mcf. per day</th>
<th>Tubing Pressure</th>
<th>Casing Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>367</td>
<td>23.5</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>279</td>
<td>23.5</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Initial production:**  
**Production after 30 days:**

**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 Lug welded</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>13-3/8</td>
<td>765</td>
<td>Surface</td>
<td>46.97#</td>
<td>New</td>
<td>Sales</td>
<td>C</td>
<td>17&quot;</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>8-5/8</td>
<td>3966</td>
<td>Surface</td>
<td>36#</td>
<td>New</td>
<td>Sales</td>
<td>C</td>
<td>12-1/4&quot;</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>6-5/8</td>
<td>4075</td>
<td>3966</td>
<td>26#</td>
<td>New</td>
<td>Sales</td>
<td>C</td>
<td>7-5/8&quot;</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>3966</td>
<td>4075</td>
<td>120 mesh</td>
<td>16</td>
<td>6&quot;</td>
<td>Kobe</td>
</tr>
</tbody>
</table>

**Electrical Log Depths:** Schlumberger from 765 to 4076  
(Attach Copy of Log)
DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR: UNION OIL COMPANY OF CALIFORNIA
FIELD: LONG BEACH

Well No. OIL OPERATORS 3, Sec. 13, T. 4-5, R. 13-W, S.B. B. & M.

Signed

Dec. 31, 1937

Date

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 socks of cement used in the plugging, number of socks 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 completion of pumping or bailing.

**Casing Record at Start of Work:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Depth</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1937</td>
<td>55</td>
<td>Spudded in and drilled with 17&quot; rotary bit.</td>
</tr>
<tr>
<td>11-10</td>
<td>932</td>
<td>Found top of cement at 761. Drilled out cement and plugs to 765' and drilled ahead with 12-1/4&quot; bits.</td>
</tr>
<tr>
<td>11-25</td>
<td>4000</td>
<td>Cored ahead to 4000'. Ran Schlumberger survey. Reamed out drill hole with 12-1/4&quot; bit to 3986'.</td>
</tr>
<tr>
<td>11-25</td>
<td>4000</td>
<td>Cemented 9-5/8&quot; 30# grade &quot;C&quot; 8-thread round seamless casing at 3986' with 400 socks Victor oil well cement.</td>
</tr>
<tr>
<td>12-1</td>
<td>4030</td>
<td>Found top of cement at 3968'. Cleaned out cement and plugs to 3991. Water shut off test on 8-5/8' casing at 3986' witnessed and approved by Stolz of Division of Oil &amp; Gas. Cored to 4030'.</td>
</tr>
<tr>
<td>12-3</td>
<td>4076</td>
<td>Cored to 4076'. Ran Schlumberger survey. Landed 110' of 8-5/8' 30# Grade &quot;C&quot; 10-thread casing at 4076', including 99' of 120 mesh (16-2-6) Kobe perforated on bottom. Bailed fluid to 1200' when oil broke in.</td>
</tr>
<tr>
<td>12-5</td>
<td>4076</td>
<td>Bailed hole clean. Landed 3' upset tubing at 3710'. Ran rods and installed pumping unit. Well on pump 6:00 P.M. 12-8-37.</td>
</tr>
</tbody>
</table>

**Casing Record at End of Work:**

13-3/8" 30765
8-5/8" 383985 - 0.65
140' 8-5/8" 4076', inc. 99' perf.
DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator: UNION OIL COMPANY OF CALIFORNIA

Field: LONG BEACH

Well No.: OIL OPERATORS 3, Sec. 13, T. 4-S, R. 15-W, S.B. B. & M.

Signed: [Signature]

Date: Dec. 31, 1937

Title: District Engineer

(Engr., Secretary or Agent)

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

### PRODUCTION TEST DATA

<table>
<thead>
<tr>
<th>Date</th>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>Cut</th>
<th>Status</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>12-5</td>
<td>215</td>
<td>150</td>
<td>23.5</td>
<td>26.0</td>
<td>P 11</td>
<td></td>
</tr>
<tr>
<td>12-6</td>
<td>373</td>
<td>267</td>
<td>23.5</td>
<td>1.5</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-7</td>
<td>310</td>
<td>307</td>
<td>23.5</td>
<td>1.1</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-8</td>
<td>304</td>
<td>301</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-9</td>
<td>308</td>
<td>305</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-10</td>
<td>312</td>
<td>309</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-11</td>
<td>311</td>
<td>308</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-12</td>
<td>311</td>
<td>307</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-13</td>
<td>310</td>
<td>308</td>
<td>23.5</td>
<td>1.2</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-14</td>
<td>310</td>
<td>308</td>
<td>23.5</td>
<td>0.7</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-15</td>
<td>305</td>
<td>303</td>
<td>23.5</td>
<td>0.6</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-16</td>
<td>317</td>
<td>314</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-17</td>
<td>307</td>
<td>304</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-18</td>
<td>306</td>
<td>302</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-19</td>
<td>302</td>
<td>295</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-20</td>
<td>298</td>
<td>285</td>
<td>23.5</td>
<td>1.0</td>
<td>P 22</td>
<td>Changed gas line</td>
</tr>
<tr>
<td>12-21</td>
<td>293</td>
<td>279</td>
<td>23.5</td>
<td>1.0</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-22</td>
<td>291</td>
<td>287</td>
<td>23.5</td>
<td>1.5</td>
<td>P 24</td>
<td>Working on gas engine</td>
</tr>
<tr>
<td>12-23</td>
<td>296</td>
<td>291</td>
<td>23.5</td>
<td>1.5</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-24</td>
<td>276</td>
<td>271</td>
<td>23.5</td>
<td>1.7</td>
<td>P 21</td>
<td></td>
</tr>
<tr>
<td>12-25</td>
<td>307</td>
<td>301</td>
<td>23.5</td>
<td>1.3</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>12-26</td>
<td>248</td>
<td>242</td>
<td>23.5</td>
<td>1.5</td>
<td>P 20</td>
<td>Starting gas engine</td>
</tr>
<tr>
<td>12-27</td>
<td>233</td>
<td>279</td>
<td>23.5</td>
<td>1.4</td>
<td>P 24</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECY.</td>
<td>SHALE</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>----------------------------</td>
<td>------</td>
<td>-------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>11-23-37</td>
<td>1</td>
<td>7-5/8</td>
<td>3930</td>
<td>3949</td>
<td>17.8</td>
<td>0.3</td>
</tr>
<tr>
<td>11-25-37</td>
<td>3</td>
<td>7-5/8</td>
<td>3966</td>
<td>3984</td>
<td>13.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>


NOTE - Driller reported shell at 3981.
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>SIZE &amp; TYPE</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>
</tr>
</thead>
<tbody>
<tr>
<td>12-2-37</td>
<td>7</td>
<td>7-5/8</td>
<td>4020</td>
<td>4045</td>
<td>7.6</td>
<td>0.2</td>
<td>5.6</td>
<td>0.1</td>
<td>1.7</td>
<td>Hard brown shale. Dip = 17°. Firm soft fine to medium brown oil sand. Good odor and dark amber cut. Hard grayish-brown bentonitic shale. Firm soft medium brown oil sand. Good odor and dark amber cut. Firm soft fine brown oil sand.</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL REC.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>----------------------</td>
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<td>-------</td>
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<td>-----------</td>
<td>-------</td>
<td>---------------------</td>
</tr>
<tr>
<td>12-2-37</td>
<td>8</td>
<td>7-5/8 Soll</td>
<td>4045</td>
<td>4050</td>
<td>13.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.4</td>
<td>0.2</td>
<td>1.8 of mud and clays with streak of fine gray sand 0.5 from top. Soft fine brown oil sand mixed with mud. Hard brown shale with streaks and partings of fine brown oil sand. Firm soft fine brown oil sand. Hard brown shale with streaks of fine brown oil sand. Firm soft fine brown oil sand. Hard brown shale. Firm soft fine brown oil sand. Good odor and dark amber cut. Hard brown shale. Soft fine brown oil sand. Good odor and dark amber cut. Hard brown shale. Soft fine brown oil sand mixed with mud. Hard brown shale.</td>
</tr>
</tbody>
</table>

TOTAL DEPTH = 4076
<table>
<thead>
<tr>
<th>Depth To Top of Formation</th>
<th>Thickness</th>
<th>Drilled or Cored</th>
<th>Recovery</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>125</td>
<td></td>
<td></td>
<td>Surface clay</td>
</tr>
<tr>
<td>125</td>
<td>140</td>
<td></td>
<td></td>
<td>Shale and sand</td>
</tr>
<tr>
<td>140</td>
<td>360</td>
<td>210</td>
<td></td>
<td>Sand and shale</td>
</tr>
<tr>
<td>360</td>
<td>725</td>
<td>395</td>
<td></td>
<td>Hard sand</td>
</tr>
<tr>
<td>725</td>
<td>1065</td>
<td>333</td>
<td></td>
<td>Shale and sand</td>
</tr>
<tr>
<td>1065</td>
<td>2419</td>
<td>1361</td>
<td></td>
<td>Sand and streaks of shale</td>
</tr>
<tr>
<td>2419</td>
<td>2720</td>
<td>301</td>
<td></td>
<td>Sand and shale</td>
</tr>
<tr>
<td>2720</td>
<td>2768</td>
<td>48</td>
<td></td>
<td>Hard sand</td>
</tr>
<tr>
<td>2768</td>
<td>2888</td>
<td>120</td>
<td></td>
<td>Hard sand and streaks of shale</td>
</tr>
<tr>
<td>2888</td>
<td>2990</td>
<td>2</td>
<td></td>
<td>Shell</td>
</tr>
<tr>
<td>2990</td>
<td>2957</td>
<td>47</td>
<td></td>
<td>Hard sand and streaks of shale</td>
</tr>
<tr>
<td>2957</td>
<td>3592</td>
<td>655</td>
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<td>Shale and streaks of sand</td>
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<tr>
<td>3592</td>
<td>3523</td>
<td>31</td>
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<td>Hard sand</td>
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<tr>
<td>3523</td>
<td>3530</td>
<td>7</td>
<td></td>
<td>Shale and streaks of sand</td>
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<tr>
<td>3530</td>
<td>3655</td>
<td>23</td>
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<td>Hard sand</td>
</tr>
<tr>
<td>3655</td>
<td>3765</td>
<td>112</td>
<td></td>
<td>Shale and streaks of sand</td>
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<tr>
<td>3765</td>
<td>3770</td>
<td>5</td>
<td></td>
<td>Hard sand</td>
</tr>
<tr>
<td>3770</td>
<td>3855</td>
<td>83</td>
<td></td>
<td>Sand and streaks of shale</td>
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<td>3855</td>
<td>3864</td>
<td>1</td>
<td></td>
<td>Shell</td>
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<td>3864</td>
<td>3864</td>
<td>10</td>
<td></td>
<td>Shale</td>
</tr>
<tr>
<td>3864</td>
<td>3865</td>
<td>2</td>
<td></td>
<td>Shell</td>
</tr>
<tr>
<td>3865</td>
<td>4075</td>
<td>410</td>
<td></td>
<td>Sand and streaks of shale (see core record)</td>
</tr>
</tbody>
</table>
This is to acknowledge the receipt of logs and similar records of wells on Sec. 13, T. 43, R. 13 W., Long B., B. & M., as herewith enumerated by well numbers.

R. D. BUSH, State Oil and Gas Supervisor
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33469

Los Angeles, Calif. December 8, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your well No. "OIL OPERATORS" 3, 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 1, 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. R. Rampton, Engineer, and J. Kewish, Toolpusher.

Location of water tested above 3986 ft. and normal fluid level not determined.

Depth and manner of water shut-off:

- 11-26-37 casing was cemented in shale formation.

- 3986 ft. with 400 sacks Victor oil well cement by casing method.

Water string was landed in 121/2" rotary hole.

Casing record of well 13-3/8" cement. 765 ft. 8-5/8" as above.

Reported total depth of hole 4000 ft. Hole bridged from XXX ft. to XXX ft. Hole cleaned out to 3991 ft. for this test.

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

At See below oil bailed to XXX ft., drilling fluid bailed to XXX ft.

At See below top of oil found at XXX ft., top of fluid found at XXX ft.

THE INSPECTOR ARRIVED AT THE WELL AT 8:30 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. No casing test was made.
2. 28' 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 well packer was set at 3989 ft.
5. The tester valve was opened at 9:12 a.m. and remained open for 30 minutes. During this interval there was a medium blow of air for 6 minutes, a strong to medium blow of gas for 24 minutes.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 2700' of oil was found in the drill pipe above the tester, equivalent to 38 bbl.
2. The fluid sample taken from the bottom of the drill pipe tasted fresh.
3. The recording pressure bomb chart showed that the tester valve was open for 30 minutes.

The test was completed at 11:50 a.m.

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By: [Signature] Deputy

cc: R. E. Winter
Long Beach
FCS: OH
629 South Hill Street  
Los Angeles, California  
November 24, 1937.

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

Gentlemen: Attention Mr. Henry E. Winter

This will acknowledge receipt of and thank you  
for your letter dated November 22, 1937, giving the correct  
elevation and location of your well No. "Oil Operators" 3,  
Sec. 13, T. 4 S., R. 13 W., S. B. E. & M., Long Beach field,  
as follows:

Elevation: 53.85' U. S. G. S.  

Location: 952 feet N.W. 'ly along the center  
line of the Pacific Electric Railway Right of  
Way from the center line of Sixty Road  
projected and thence 271 ft. southwesterly  
at right angles.

Our records have been corrected accordingly.

Yours truly,

[Signature]

B:EMS

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

Deputy Supervisor.

<table>
<thead>
<tr>
<th>Corrections Made as Follows</th>
<th>By Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Summaries</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td></td>
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<tr>
<td>Elev. and Loc. Cards</td>
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<td>Production Reports</td>
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<td>Field Books</td>
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<td>Wall Records</td>
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<td>Pea Models</td>
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<td>Graphics</td>
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</table>

Book CLB  
11/24/37
Santa Fe Springs, Calif. Nov. 22, 1937

Mr. E. Huguenin, Deputy Supv.,
Division of Oil & Gas,
Los Angeles, Calif.

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #3" at Long Beach (Sec. 13-4-13) is 53.88 U.S.G.S.

The corrected location is as follows:

982 ft. N-W'ly along the center line of the Pacific Electric Railway Right of Way from the center line of Bixby Road projected and thence 271 ft. Southwesterly at right angles.

Our records have been corrected accordingly.

Very truly yours,

Henry E. Winter
District Engineer.

HEW:S
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33407

Los Angeles, Calif. November 29, 1937.

Mr. Ed. Jussen, Jr.

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 3 Sec. 13, T. 4 S., R. 13 W., S.E. B. & M., Long Beach Field, in Los Angeles County, were witnessed by E. R. Murray-Aaron, representative of the supervisor, on November 9, 1937. There was also present R. Hampton, Engineer, and J. Kewish, Drilling Foreman.

Casing Record:

13-3/8" com. 765'; T.D. 765'.

Junk:

xxxx

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 8:45 A.M. AND MR. HAMPTON REPORTED THE FOLLOWING:
1. A 17" rotary hole was drilled from the surface to 765'.
2. 770' of 13-3/8" - 45.97 lb. casing was run into the hole to 765'.

THE INSPECTOR NOTED THE FOLLOWING:
1. The 13-3/8" casing was cemented at the reported depth of 765' with 350 sacks of Victor High Early cement.
2. The final pressure was 500 lb.

The operations were completed at 9:30 a.m.

THE CEMENTING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT THE KNOWN SURFACE WATERS ARE ADEQUATELY PROTECTED.

cc - E. 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 1-31535

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" 3 ,

Section 13, T13 S., R. 13 W. S.B. & M., Long Beach Field, Los Angeles County, dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"The well is 355 feet W'ly along the center line of San Antonio from the center line of Del Mar Ave. and thence 925' N'ly at right angles. 53.88 ft. The elevation of the derrick floor above sea level will be determined later - approx. 55 ft. 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' Cmtd.
8-5/8" 36 New 4000 Cmtd.
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 DIVISION SHALL BE NOTIFIED TO WITNESS:
(a) The cementing of the 13-3/8" surface casing.
(b) Final mudding operations before cementing the 8-5/8" casing.
(c) A test of the effectiveness of the 8-5/8" shut-off.

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

*982 feet N.W. 'ly along the center line of the Pacific Electric Railway Right of Way from the center line of Bixby Road projected and thence 271 feet southwesterly at right angles. (Correction letter 11-24-37)

R. D. BUSH
State Oil and Gas Supervisor

By: _______________ Deputy
Notice of Intention to Drill New Well
This notice must be given before drilling begins

General Exploration Co.
Santa Fe Springs, Cal. Oct. 28, 1937

E. Huguenin
Deputy State Oil and Gas Supervisor
Los Angeles, Cal.

Dear Sir:

"Oil Operators" 3

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 drilling well No. Oil Operators #3, Sec. 13, T. 4 S., R. 13-W, S.B., B. & M., Long Beach Oil Field, Los Angeles County.

Lease consists of:

982 feet N.W. Ily along the center line of the Pacific Electric Railway Right of Way from the center line of Bixby Road projected and thence 271 feet south 355 W. Ily along the center line of San Antonio from the center line of Del Mar Ave. and thence 925 N. Ily at right angles.

The well is 53.86 feet westerly at right angles. (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&quot;</td>
<td>46</td>
<td>New</td>
<td>700'</td>
<td>Ctd.</td>
</tr>
<tr>
<td>8-5/8&quot;</td>
<td>36</td>
<td>New</td>
<td>4000</td>
<td>Ctd.</td>
</tr>
<tr>
<td>6-5/8&quot; 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 42887

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

By: Henry E. White
District Engineer.

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED
Pacific Energy Resources Ltd.

"Oil Operators" 1

Sec. 13-45-13 W.

Casing shoe depth:

Driller

757 ft. Started run

757 ft. Finished run

Bottom Depth:

Driller

4041 ft. Time well occupied by outfit

4043 ft. Time waiting at well

Max. depth reached by lower elect

3286 ft. Mileage incurred by run

Max. footage measured (p or S. P.)

Footage missed

--- ft. Total time incurred by run

MUD CHARACTERISTICS

<table>
<thead>
<tr>
<th>NATURE</th>
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<tr>
<td>DENSITY</td>
<td>73</td>
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</tbody>
</table>

| VISCOITY | 34 |
|LEVEL | |
|RESISTIVITY | 10\(\frac{1}{2}\) |

DIAMETER OF HOLE

12\(\frac{1}{2}\)" to 4000 ft.

7-\(\frac{5}{8}\)" to 4041 ft.

REMARKS

Device: 20"

Witnessed By: Mr. Winter

OBSERVERS: J. WALSTROM

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>RESISTIVITY LOG ohms. m(^2)m</th>
<th>POROSITY LOG millivolts</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>18</td>
<td>30</td>
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</table>

---150 m.V.---
WELL: Oil Operators #1
RUN NO.: Second
ELEVATION: 1013.4 ft
FIELD: Long Beach
COUNTY: Los Angeles
STATE: California

Casing shoe depth:
Driller 4105 ft. Started run 4:15 p.m.
Schlumberger 4532 ft. Finished run 5:45 p.m.
Bottom Depth:
Driller 4532 ft. Time well occupied by outfit 13.5 h.
Max. depth reached by lower elect 4532 ft. Time waiting at well 10.5 h.
Footage measured 427 ft. Mileage incurred by run 10 M.
Footage missed 1 ft. Total time incurred by run 5.5 h.

DIAMETER OF HOLE
from...to 4532 ft. 7-5/8"" MUD CHARACTERISTICS
from...to
from...to
Bottom Temperature 126°F Nature: Natural

REMARKS
Device: Long

Note: 60 Ohms scale attached at bottom

Depth measurements taken from: Top of rotary table
Maximum Pull 1800 lbs. at 4532 ft.
Witnessed By: Mr. Winter

DATE: August 13, 1939
OBSERVERS V. T. FAIT
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
PO250

Date
7/10/2007

Name and location of well(s)
See Attachment

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

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

New owner
Pacific Energy Resources Ltd.

Operator code
PO250

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>
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<td>Form OGD121</td>
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<td>Production reports</td>
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OGD156 (5/98)
WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY CORP.
SEE OGD156 DATED 5-13-94
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California
March 9, 1993

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

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

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

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

By
For R. K. Baker, Deputy Supervisor

KMCdf

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

RECORDS RECEIVED AND WELL

Company: Pico Resources, Inc.  Well No.  WD661 8-1
API No. 049-09798  Sec. 13, T. 4S, R. 18W, S.B. B&G
County: Los Angeles  Field: long beach

RECORDS RECEIVED

Well Summary (Form OGl00)  10/17/92 (2)
History (Form OGl03)  
Core Record (Form OGl01)  
Directional Survey  
Sidewall Samples  
Other  
Date final records received  
Electric logs:  

ENGINEER'S CHECK LIST

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

CLEERICAL CHECK LIST

1. Location change (F-OGD165)  
2. Elevation change (F-OGD165)  
3. Form OGD121  
4. Form OGL59 (Final Letter)  
5. Form OGD150b (Release of Bond)  
6. Duplicate logs to archives  
7. Notice of Records due (F-OGD170)  
8. EDP (F-OGD42A, 1, 2)  

RECORDS NOT APPROVED

Reason:  

RECORDS APPROVED  

RELEASE BOND

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

MAP AND MAP BOOK  

UPDATE CENTER 3-22-93

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

Operator: Petro Resources, Inc.  Field: Long Beach  County: Los Angeles
Well: NWLBU 8-1  Sec.: 13  T.: 4S  R.: 13W  S.B.B. & M.
A.P.I. No.: 037-99792  Name: Joe D. Rose  Title: Manager
Date: Oct. 6, 1992

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

History must be complete in detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandoning the wells. 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 | Description
-----|------------------------------------------------------
1/31/84 | Ran 3-3/4" bailor to 518'. Bailed pieces of wood. Ran 6-3/4" bit.
2/3/84-2/6/84 | Drilled and milled wood and steel to 558'. Ran I.B., appears to be angle iron in hole. (Mill worn down on outside 6" diameter).
6/2/92 | MIRU Finley Oilwell Service.
6/3/92 | 7" I.B. to 551'. Mark on outside of 7". Ran in sawtooth on 2-7/8" to 551'. Ran 1-1/4" tubing to 551'. No go.
6/4/92 | Pickup power swivel, spools for wellhead etc. Short day.
6/5/92 | Ran 7-3/8" shoe and 1 ft. washer pipe. Wash 551-554'. Pull @ 25,000# to free string. No fish. 2' worn imprint inside shoe.
6/8/92 | Ran 7" shoe with skirt drill 551-555'. Torque up, pull 32,000#, slipped off. Ran again to 554', won't go. Torque up.
6/12/92 | Ran 4-1/2" washer pipe, c.o. to 564'. POOH, recover 6' - 3-1/2" OD metal tube split and twisted w/ID of interior full of redwood pieces and splinters. Ran again, wouldn't go. Blanks off like we are inside of a core inside of wood.
6/15/92 | Ran 4-9/16" junk mill, c.o. to 573'. Lots of wood and some metal shavings. Ran 7-5/8" 2 cone bit, c.o. to 575'. Wood and metal.
6/17/92 | Load out tools. Rig up 10-900 double gate BOP. Shoot 8-1/2" holes 578-70'. RIH with Baker permanent cement retainer set at 537'. Pump away at 0-200 psi.
7/3/92 | Cut off casing 8' below ground level and welded on metal cap. Both strings observed to be full of cement.
Report on Operations

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

Long Beach Calif.

July 13, 1992

Your operations at well NWLBU 8-1, API No. 037-09792, Sec. 13, T. 4S, R. 13W, S.B. B & M. Long Beach Field, in Los Angeles County, were witnessed on 7-3-92 by J. Hebein, Engineer, representative of the supervisor, was present from 1400 to 1405. There were also present: Dave Dahlman.

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

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

DECISION:

APPROVED.

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

DEFICIENCIES: None.

CONTRACTOR: Finley Oil Well Service, Inc.

Surface Inspection Approved 7-14-92

JH:df

cc: Update
Callow, Signal Hill

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

By
Deputy Supervisor
for R. K. Baker

OG103 (9/91/GRS1/5M)
DIVISION OF OIL AND GAS  
Cementing/Plugging Memo

Operator: Petro Resources, Inc.  
Well No.: NWL B.U. 8-1

API No.: 037-09792  
Sec.: 13, T.: 4s, R.: 13w, S.B.: B&M

Field: Long Beach, County: Los Angeles  
On: 7/3/92

Mr./Ms.: J. Hebein, representative of the supervisor, was present from 1:00 to 1:05.

There were also present: Dave Dahlman, Pacific Energy Resources

Casing record of well: 3 3/8 cam 757', 8 5/8 cam 4105', 570', 6 5/16d 4024' 4529', 4575'. Junk below 580'. TD 4531'. Bp 4200. Plugged with:

4529'-4443', 4200'-4124', 11' 523sx A cam below 535 + W/cam 535'-8'.

The operations were performed for the purpose of

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

☐ The location and hardness of the cement plug at _______ is approved.

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

<table>
<thead>
<tr>
<th>Casing</th>
<th>Cemented</th>
<th>Top of Fill</th>
<th>Squeezed</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Wt.</td>
<td>Top Bottom</td>
<td>MO-Depth</td>
<td>Volume</td>
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<td></td>
<td></td>
<td></td>
<td>Annulus</td>
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BID 264#m @ 200 psi.

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

________" shot/cut at _______', _______', _______' pulled fr. _______.

Junk (in hole): below 580'.

Hole fluid (bailed to) at _______. Witnessed by

Mudding | Date | Bbls. | Displaced | Poured | Fill | Engr.
<table>
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NOTE (K) 12AM 6/18/92

Cement Plugs | Placing | Placing Witnessed | Top Witnessed
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<tbody>
<tr>
<td>Date</td>
<td>Sx./cf</td>
<td>MO &amp; Depth</td>
<td>Time</td>
</tr>
<tr>
<td>6/18/92</td>
<td>1/2 5x</td>
<td>Ret. @ 535'</td>
<td>0900</td>
</tr>
<tr>
<td>C/O 580'</td>
<td>2 and (c/e) 551'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* plate welded on 20" conductor

OG Oil 10(231/GSR/5M)
DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

None

UNCORRECTABLE DEFICIENCIES:

None

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

BLOWOUT PREVENTION EQUIPMENT MEMO

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

VISITS:
1st Date: 6/18/94
Engineer: McSawn
Time: 0830 to 0900
Operator's Rep.: J. Meyers
Title: R.F.

Contractor: Rig #
Contractor's Rep. & Title: 

Casing record of well: 

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

Proposed Well Ops: Abandon
MACP: 

Hole size: ________ ft. to ________ ft. & ________ ft. to ________ ft.

**REQUIRED BOPE CLASS:** D2M

<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>Size</td>
<td>Weight(s)</td>
<td>Grade(s)</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>
</tr>
</thead>
<tbody>
<tr>
<td>P1 7 1/8</td>
<td>Shaffer</td>
<td>Mech 8</td>
<td>3000</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1 C9D</td>
<td>II</td>
<td>8</td>
<td>—</td>
<td></td>
<td></td>
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</table>

**ACTUATING SYSTEM**

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

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

**CONTROL STATIONS**

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

**EMERG. BACKUP SYSTEM**

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

TOTAL: gal.

**HOLE FLUID MONITORING EQUIPMENT**

<table>
<thead>
<tr>
<th>Alarm Type</th>
<th>Audible</th>
<th>Visual</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Mud Pit</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pit Level Indicator</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Stroke Counter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pit Level Recorder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Sensor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mud Totalizer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calibrated Trip Tank</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS AND DEFICIENCIES:**

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

**TOTAL:**

**AUXILIARY EQUIPMENT**

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

**OG09 (12/90/GSR1/2M)**

Q09 (12/90/GSR1/2M)
PERMIT TO CONDUCT WELL OPERATIONS

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

Long Beach, California
June 16, 1992

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

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

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

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

BLANKET BOND

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

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

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

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

The present condition of the well is:

1. Total depth: 4532', junk @ 551'
2. Complete casing record, including plugs and perforations:
   - 13-3/8" csg. cmted. @ 757'
   - 8-5/8" csg. cmted. @ 4105'
   - 6-5/8" 4024-4529', cp @ 4475'.
   - PB 4520-4443', BP @ 4200'. Cmt. plug 4200-4124'.

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

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

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

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

Petro Resources, Inc.

By Joe D. Rose
Type of Organization Corporation
(Company, Partnership, Individual, etc.)

6-12-92
(Date)

FORM 108 (REV. 1-73)
<table>
<thead>
<tr>
<th>TO</th>
<th>Ken</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM</td>
<td>Vern</td>
</tr>
<tr>
<td>DATE</td>
<td>6-7-16</td>
</tr>
<tr>
<td>TIME</td>
<td>11:45</td>
</tr>
<tr>
<td>PHONE</td>
<td>(310) 595-4505</td>
</tr>
</tbody>
</table>

**MESSAGE/REMARKS**

Did you fax the notes yet?

**BY**

Fax (310) 595-0310
DIVISION OF OIL AND GAS

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

The present condition of the well is:
1. Total depth: 560', junk @ 551'
2. Complete casing record, including plugs and perforations:
   13-3/8" csg. cmtd. @ 757'
   8-5/8" csg. cmtd. @ 4105'
   6-5/8" 4024-4529', cp @ 4475'.
   PB 4320-4443', BP @ 4200'. Cmt. plug 4200-4124'.

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

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

Additional data for dry hole (show depths)
5. Oil or gas shows
6. Stratigraphic markers
7. Formation and age at total depth:
8. Base of fresh water sands: 2100'

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

Address: 4200 Easton #16
Bakersfield, CA 93309

Telephone Number: (805) 323-4118

FOR DIVISION USE ONLY

CARDS

BOND

FORMS

01/18/88 B 9/25/90 114 121 9/25/90

Petro Resources, Inc.

By: Joe B. Rose

Type of Organization Corporation

(Corporation, Partnership, Individual, etc.)
PETRO RESOURCES INC

Facsimile Transmission Cover Sheet

---

To: KEN CARLSON  DIVISION OF O&G

Receiving FAX telephone: 310/590/5301

1 more page follows this cover page

Sent by:

JOE ROSE

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

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

In case of trouble, contact: 805 323 4118

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

Facsimile Transmission Cover Sheet

--

TO: KEN CARLSON DIVISION OF O&G

Receiving FAX telephone: 310/590/5301

1 more page follows this cover page

Sent by:

JOE ROSE

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

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

In case of trouble, contact: 805 323 4118

Sent on 06-12-1992 at 10:56
<table>
<thead>
<tr>
<th>Company</th>
<th>Item Description</th>
<th>Daily</th>
<th>Accum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>John M. Phillips Co.</td>
<td>12'900 x 8-900 X-OVERPOOL</td>
<td>20.00</td>
<td>180.00</td>
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<tr>
<td></td>
<td>8-900 PGSR</td>
<td>25.00</td>
<td>225.00</td>
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<tr>
<td></td>
<td>1 EA. 3 1/2 P/ F LIFTER</td>
<td>15.00</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td>1 SET 4 1/2&quot; TONG JAWS</td>
<td>45.00</td>
<td>135.00</td>
</tr>
<tr>
<td></td>
<td>1 SET 4 1/2&quot; SLIP INSERTS</td>
<td>20.00</td>
<td>60.00</td>
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<tr>
<td></td>
<td>2 EA. 4 1/4&quot; DRILL COLLARS</td>
<td>10.00</td>
<td>50.00</td>
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<tr>
<td></td>
<td>SOS TRUCK DELIVERY</td>
<td>99.00</td>
<td>990.00</td>
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<tr>
<td></td>
<td><strong>SUB TOTAL</strong></td>
<td><strong>$880.00</strong></td>
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<tr>
<td>Martin Pacific Trucking</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>6 3/4&quot; Junk mill</td>
<td>205.00</td>
<td>1435.00</td>
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<td><strong>SUB TOTAL</strong></td>
<td><strong>$2035.00</strong></td>
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<tr>
<td>Jett Tiller</td>
<td>7&quot; IMPRESSION BLOCK</td>
<td>PER JOB</td>
<td>196.00</td>
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<td></td>
<td>4&quot; &quot;</td>
<td>&quot;</td>
<td>98.00</td>
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<td></td>
<td>4 1/8 &quot;</td>
<td>&quot;</td>
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<td>4 3/8&quot; MAGNET</td>
<td>&quot;</td>
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<td><strong>SUB TOTAL</strong></td>
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<td>280.00</td>
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<td>6 1/2&quot; Junk mill</td>
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<td>1157.00</td>
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<td>3 EA. X-OVER SUBS</td>
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<td>Homeco In 4&quot;</td>
<td>7 3/8&quot; SHOE</td>
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<td>7 3/8&quot; W/0 PIPE</td>
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**FINLEY OILWELL SERVICE INC.**  
PO. BOX 92527  LONG BEACH, CA 90809  
PHONE 595-4505

Company:脚注 RESOURCES INC.  
Lease: NLB  
Well: X-1

**Field: LONG BEACH**

**Service Report**  
**JOB No: 49982**  
**Date: 6-7-92**  
**Work Order No: **

### ROD RECORD

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

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

### PUMP RECORD

### TUBING RECORD

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

Size of nipples in tubing string and location:

Make of tubing catcher, anchor:

Amount of tubing above catcher:

BAILING RECORD

Maker of bailer:

Size:

Bailed from to:

Formation:

Fluid Level:

Top. Perf.: Bottom Perf.: Zero Point: Laid out Rig mats moved in mud Pump pump mast-

**REMARKS:**

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

<table>
<thead>
<tr>
<th>HOIST</th>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
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<td>4:30 P.M</td>
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<td>PUMP</td>
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<tr>
<td>SWIVEL</td>
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<th>PUSHER</th>
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<tbody>
<tr>
<td>HELPER</td>
<td>R. NEWMAN</td>
</tr>
<tr>
<td>HELPER</td>
<td>A. MEDINA</td>
</tr>
<tr>
<td>HELPER</td>
<td>J. MEDINA</td>
</tr>
<tr>
<td>HELPER</td>
<td>F. HENRY</td>
</tr>
<tr>
<td>HELPER</td>
<td>R. BROWNE</td>
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</table>


Company: Petro Resources Inc.
Lease: NW 1/4
Well: 8-1
Field: Long Beach, Cal.

Service Report
Job No: 49983
Date: 6-3-92

Rod Record

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</tbody>
</table>

Pump Record

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

Tubing Record

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

Size of nipples in tubing string and location:

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

Bailing Record

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

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

Remarks: Remove well head - my 7" impression block - jet bailer - R.I.H. - stacked out @ 551 - P.O.H. - DN 1 1/2" wide mark on outside of face on 1 1/2" R.I.H. - open end 1/2" - stopped @ 551 - unable to work past 551 - P.O.H. - R.I.H. 7 1/2" collar - stopped @ 551 unable to get passed 551 - P.O.H. - my jet bailer 4" 1/2" R.I.H. - stack out @ 551 - P.O.H. - 1 1/2" indicates parted or bad casing - my 1 " jet 1 1/4" T.B.S. on 2 1/2 T.B.S. & R.I.H. - unable to get passed 551 - 1/14" T.B.S. - P.O.H. - secure well lay water line to well 8-1

Rig 7 Crew 1503

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

<table>
<thead>
<tr>
<th>Hoist</th>
<th>P.M.</th>
<th>Start</th>
<th>Stop</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mast #4</td>
<td></td>
<td>6:30 A.M.</td>
<td>3:30 P.M.</td>
<td>9 HRS</td>
</tr>
<tr>
<td>Sand Line</td>
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</tr>
<tr>
<td>Pump</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Swivel</td>
<td></td>
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</tbody>
</table>

Pusher: R. Wheeler
Helper: A. Medina
Helper: M. Medina
Helper: E. Hartsock - Trant
FINLEY OILWELL SERVICE INC.

Company: Petro Resources Inc.
Lease: NW 1/4 Sec. 11
Field: Long Beach, CA

Service Report
JOB No. 49984

Date: 6-4-92

Work Order No.

ROD RECORD

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</table>

PUMP RECORD

Pump No. Out. Make: Size
Plunger: Mandrel

Pump No. In. Make: Size
Plunger: Mandrel

TUBING RECORD

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

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

BAILING RECORD

Amount of tubing below catcher.

Maker of bailer: Size
Bailed from: to: Formation

Fluid Level
Top, Perf: Bottom Perf: Zero Point

REMARKS:
MOVE IN POWER SWIVEL & NIPPLES, SAME HANG BACK IN DEGREE, NIPPLE HOSES & CROSS-OVER, SPOOL TO AGS. SHOT ON UNTIL AM 6-5-92 TO RECEIVE WASH OVER PIPE & MISC. COP A FISHING TOOLS.

#584.50
Pic's Crew

#40.00
Sub Pay

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

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

<table>
<thead>
<tr>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
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<tr>
<td>6:30 A.M.</td>
<td>10:00 A.M.</td>
<td>3.5</td>
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</table>

No Accidents

HOIST

MAST

SAND LINE

PUMP

SWIVEL

PUSHER

WHEELER

HELPERS

A. MEDINA

M. MEDINA

E. HART-SOCK

HELPERS

A. WUZHENG

A. MEDINA

M. MEDINA
Service Report
JOB No. 49985

Company: Petro Resources Inc.  Date: 6-5-92
Lease: N/WLB  Work Order No.
Field: Long Beach CA.

ROD RECORD

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</table>

PUMP RECORD

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

TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
<th>Feet</th>
<th>No. Joints Run</th>
<th>Depth of Shoe</th>
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DAILY COST ON FISHING TOOLS  $2465.00
Approx

Size of nipples in tubing string and location
Make of tubing catcher, anchor  Size
Amount of tubing above catcher
BAILING RECORD
Amount of tubing below catcher

Maker of bailer  Size
Bailed from  to  Formation
Fluid Level  Top. Perf.  Bottom Perf.  Zero Point

REMARKS: Service Rig & Components, RIH 14-1/2" Tools & CHange Over to Fresh Water, Circ. Fluid, Receive & Upload Wash-Over a Paise, Tools, Pick up Other Tools & Measure Mill & RIH by 7-3/8" tool FIlet Burn, SHOE 1-3/4" 43' 43'' KB to 554.43' + SHOE TO HU Indicated, Approx. 1' of Fish Entered Full Gage of Shoe. 20'-30,000# Strut WT to Pull Free Before PULL. Strut Up-Do. By 12:55. Were 10,000# Distance from Anchor & Pull Free. Due to Lack of Collar WT. Secure Well & Shut Down until 7:00 AM 6-8-92 Ordered 5/24 30' 4/52' Into D. E. 10 Bore Shoe & Add Cutter Surface to Inside Bore 4/10.

Crew Only

<table>
<thead>
<tr>
<th>Items</th>
<th>Rate</th>
<th>Total</th>
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<tbody>
<tr>
<td>4 Hrs</td>
<td>125.00</td>
<td>500.00</td>
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Sub Pay

<table>
<thead>
<tr>
<th>Power Swivel &amp; Mud Pump</th>
<th>200.00</th>
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Well Went Off  A.M.  19 Production  A.M.
Production  P.M.  19

START  STOP  HOURS

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<tbody>
<tr>
<td>HOIST 4</td>
<td>6 AM</td>
<td>4 PM</td>
</tr>
<tr>
<td>MAST</td>
<td></td>
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<tr>
<td>SAND LINE</td>
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<tr>
<td>PUMP</td>
<td></td>
<td></td>
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<tr>
<td>SWIVEL</td>
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<tbody>
<tr>
<td>PUSHER R. WHEELER</td>
<td>6 AM</td>
<td>4 PM</td>
</tr>
<tr>
<td>HELPER R. MEDINA</td>
<td>6 AM</td>
<td>4 PM</td>
</tr>
<tr>
<td>HELPER M. MEDINA</td>
<td>6 AM</td>
<td>4 PM</td>
</tr>
<tr>
<td>HELPER G. HARTSOCK</td>
<td>6 AM</td>
<td>4 PM</td>
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</tbody>
</table>
**Service Report**

**JOB No 49986**

**Date:** 6-8-92

**Company:** Petro Service Inc.

**Lease:** M2

**Well:** 8-1

**Field:** LONG BEACH

### ROD RECORD

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</table>

### PUMP RECORD

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

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

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

**Make of tubing catcher, anchor:** Size

**Amount of tubing above catcher:**

**BAILING RECORD**

<table>
<thead>
<tr>
<th>Maker of bailer...</th>
<th>Size</th>
<th>Bailed from...</th>
<th>to...</th>
<th>Formation...</th>
<th>Fluid Level</th>
<th>Top. Perf...</th>
<th>Bottom Perf...</th>
<th>Zero Point</th>
</tr>
</thead>
<tbody>
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**REMARKS:**

*See Eqn. 4.11*.

**Top Sub Spindles:**

- 7 1/8" O.D. 7 9/16" I.D.
- 13,000 PSI
- 600° F
- 550, 85 °F
- 22,000 RPM
- 8 1/2" string
- 1 1/2" pull back
- 550° F
- Unable to get below 350°F, unable to get string to location until am 6/8/92.

**No Accidents**

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

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

<table>
<thead>
<tr>
<th>Hoist</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td>5 1/2</td>
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<table>
<thead>
<tr>
<th>Mast</th>
<th>Pusher: R. Wheeler</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>6:30 A.M. 12 P.M. 5 1/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sand Line</th>
<th>Helper: D. McQuain</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:30 A.M. 12 P.M. 5 1/2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump</th>
<th>Helper: J. McDON .</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4:30 A.M. 12 P.M. 5 1/2</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Swivel</th>
<th>Helper: G. Hartsock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4:30 A.M. 12 P.M. 5 1/2</td>
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</table>

<table>
<thead>
<tr>
<th>Pusher</th>
<th>Helper</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Wheeler</td>
<td>D. McQuain</td>
</tr>
<tr>
<td>6:30 A.M. 12 P.M. 5 1/2</td>
<td>4:30 A.M. 12 P.M. 5 1/2</td>
</tr>
</tbody>
</table>
### Service Report

**Job #** 49987

**Date** 6-9-92

**Lease** 2776 L B
**Well** 81

**Field** Long Beach

#### ROD RECORD

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#### PUMP RECORD

<table>
<thead>
<tr>
<th>Pump No. Out</th>
<th>Make</th>
<th>Size</th>
<th>Plunger</th>
<th>Mandrel</th>
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#### TUBING RECORD

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<thead>
<tr>
<th>Size</th>
<th>No. Joints Out</th>
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Size of nipples in tubing string and location:

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

**BAILING RECORD**

Amount of tubing below catcher:

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

Top. Perf. | Bottom Perf. | Zero Point |
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### REMARKS

Drill, Equip, Mean, 4 1/2 in. 4 1/2 in. of 7 1/2" x 8 1/2 in. Diamond window
friction after. Top 55': 4:1 wrap on 7 1/2" Mandrel to set below
55'. POH 5 1/2 in. 2.5 m. Diamond Bait Out Approx. 1/4" over 1/2 in. of outside
of above shoring wire. Drilling & lure. mop & 1 1/2 ft of 9 1/2 line put
in drill 2" getting loose strands of wood & wood & metal scales.
POH 55' 4:1 L 1/2 ft & 4 Bit & 4 Bit Sub. Secure well & shut down to
PM 6-10-92

**Totals**

- Rig & Crew: $1252.50
- Towage Service: 300.00
- Mud Pump: 300.00
- **Total**: $1892.50

**No Acc.**

#### Well Went Off

<table>
<thead>
<tr>
<th>Production</th>
<th>A.M.</th>
<th>P.M.</th>
<th>19</th>
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#### Well Put On

<table>
<thead>
<tr>
<th>Production</th>
<th>A.M.</th>
<th>P.M.</th>
<th>19</th>
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#### HOIST

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<tr>
<td>#4</td>
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#### MAST

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#### SAND LINE

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#### PUMP

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#### SWIVEL

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#### PUSHER

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#### HELPER 1

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#### HELPER 2

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#### HELPER 3

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#### HELPER 4

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#### HELPER 5

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## Service Report

**Company**: Finley Oilwell Service Inc.

**Lease**: NW-3 8-1

**Field**: Long Beach

**ROD RECORD**

<table>
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Size of nipples in tubing string and location

Make of tubing catcher, anchor: Size.

Amount of tubing above catcher

**BAILING RECORD**

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<th>Maker of bailer</th>
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</table>

**REMARKS**

- EQUIP. 8 1/2" STINGER GRIZZLY TRUCK @ 4:30AM. A 1/2" CHAIN @ 9:00AM. SAW 8" GHA RILL AT PILED COKE BUSTER MILL. PCD @ 534' MILL TO 532' PCD. 1/2" PRESS AT 6:45AM. SAW 1/2" IN REVERSE AT 532'. RILL AT PILED COKE BUSTER MILL 8 1/2" WIRE PATTERN TO 534'. PCD AT 8 1/2" WIRE PATTERN TO 532'. 1/2" IN REVERSE AT 532'. PCD AT 8 1/2" WIRE PATTERN TO 532'. 1/2" IN REVERSE AT 532'. PCD AT 8 1/2" WIRE PATTERN TO 532'.

- Eq. 8 1/2" CO. INSTALLED TUBE W/ SMALLER CIRCULAR HOLE INSIDE SAME RILL AT 2:45PM. STINGER & 1 1/2" SIDE @ 537' SECURED W/ WIRE. SHUT ON UNTIL AM 4-11-92.

---

**Total**: 2477.00

**Well Went Off A.M.**: 10:37

**Well Put On P.M.**: 4:30

<table>
<thead>
<tr>
<th>Well Production</th>
<th>A.M.</th>
<th>P.M.</th>
<th>19</th>
</tr>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Well Put On Production</th>
<th>A.M.</th>
<th>P.M.</th>
<th>19</th>
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<tbody>
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</table>

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

<table>
<thead>
<tr>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1AM</td>
<td>5PM</td>
<td>11</td>
</tr>
</tbody>
</table>

**Pusher**: Wheeler

**Helper**: Martin

**Helper**: Williams

**Helper**: Hardman
## Service Report

**JOB No 49989**

**Date:** 6-11-92

**Company:** Petro Resources Inc.

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

**Field:** Long Beach

### ROD RECORD

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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### PUMP RECORD

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

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

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

**Make of tubing catcher, anchor:**

**Amount of tubing above catcher:**

**Amount of tubing below catcher:**

### BAILING RECORD

**Maker of bailer:**

**Size:**

**Bailed from:**

**Formation:**

**Fluid Level:**

**Top Perf.:**

**Bottom Perf.:**

**Zero Point:**

### REMARKS

- **Equip. Air Compressor leaking. Will cut out for patch service.**
- **Mill & G.I. 50' 5 1/2" of 8" plain hole.**
- **B, 537' Set block loc. at 50' before setting.**
- **No. of metal cuttings settled on obstruction.**
- **Mill at 537' no obstructions. Recovered 2 3/4' in N.**
- **Laid of metal fragments in tubing.**
- **Pulled 3 1/4' Re-Run I.B. Metal object in middle.**
- **No. 4 1/4' mill at 4 1/4' x 3'**
- **Junk Sub. Above Mill.**
- **Pulled up to 537' bottom hole.**
- **No obstructions.**
- **Established torque POS at 4 1/4' outside Wear. 3 1/4' Circular and solid 2" center with cuttings.**
- **Secured well & shut on.**

**Rig & Crew:**

| 1056-50 |

**Sub Pump:**

| 40-5 |

**Sub Play:**

| No Wcc. |

**Well Went Off Production:**

<table>
<thead>
<tr>
<th>A.M.</th>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>

**Well Put On Production:**

<table>
<thead>
<tr>
<th>A.M.</th>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

### HOIST

| 4 |

### MAST

<table>
<thead>
<tr>
<th>START</th>
<th>STOP</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 AM</td>
<td>1 PM</td>
<td>6:12</td>
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</tbody>
</table>

### SAND LINE

### PUMP

<table>
<thead>
<tr>
<th>6:30 AM</th>
<th>1 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 AM</td>
<td>1 PM</td>
</tr>
</tbody>
</table>

### SWIVEL

### pusher

### Helper

<table>
<thead>
<tr>
<th>+ Wheeler</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 AM</td>
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<tr>
<td>6:30 AM</td>
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<tr>
<td>6:30 AM</td>
</tr>
</tbody>
</table>

### Helper

<table>
<thead>
<tr>
<th>+ Marquesa</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 AM</td>
</tr>
<tr>
<td>6:30 AM</td>
</tr>
<tr>
<td>6:30 AM</td>
</tr>
</tbody>
</table>

### Helper

<table>
<thead>
<tr>
<th>+ Harrisson</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 AM</td>
</tr>
<tr>
<td>6:30 AM</td>
</tr>
<tr>
<td>6:30 AM</td>
</tr>
</tbody>
</table>
# Report of Property and Well Transfer

**Field or county:**

Long Beach

**Former owner:**

Sun Exploration & Production Co.

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

<table>
<thead>
<tr>
<th>Well Name</th>
<th>Location</th>
<th>Former Well Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWLBU 5-1</td>
<td>Sec. 13-4S-13W S.B.B.&amp;M.</td>
<td>NWLBU 8-1 (037-09792)</td>
</tr>
<tr>
<td>NWLBU 5-2</td>
<td></td>
<td>NWLBU 9-3 (037-09791)</td>
</tr>
<tr>
<td>NWLBU 5-3</td>
<td></td>
<td>NWLBU 9-4 (037-00392)</td>
</tr>
<tr>
<td>NWLBU 5-4</td>
<td></td>
<td>NWLBU 9-5 (037-00142)</td>
</tr>
<tr>
<td>NWLBU 6-1</td>
<td></td>
<td>NWLBU 9-6 (037-00393)</td>
</tr>
<tr>
<td>NWLBU 6-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date:**

June 15, 1983

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

May 1, 1983

**New owner:**

Petro Resources, Inc.

**Address:**

4200 Easton Drive, Suite 16
Bakersfield, CA 94309

**Type of organization:**

Corp.

**Telephone No.:**

805/323-4118

**Reported by:**

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

**Confirmed by:**


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

PA

**Request designation of agent:**

Joe D. Rose, same address.

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

PA

**Deputy Supervisor:**

V. F. Gaede

**Signature:**

[Signature]

## Operator Status Abbreviations

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

## Form and Record Check List

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form OGD121</td>
<td>CP</td>
<td>1-1-83</td>
<td>Map and book</td>
<td>137</td>
<td>2/12/83</td>
</tr>
<tr>
<td>Form OGD140</td>
<td>NONE</td>
<td></td>
<td>Notice to be cancelled</td>
<td></td>
<td></td>
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<tr>
<td>New well cards</td>
<td>CP</td>
<td>1-1-83</td>
<td>Bond status</td>
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<tr>
<td>Well records</td>
<td>CP</td>
<td>1-1-83</td>
<td></td>
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<tr>
<td>Electric logs</td>
<td>CP</td>
<td>1-1-83</td>
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<td></td>
<td></td>
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<tr>
<td>Production reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.
1-1-82, Form 156 dated 1-21-82. See ownership file.
REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California
Oct. 4, 1979

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

Dear Sir:

Your request dated March 19, 1979, relative to change in designation of well(s) in Sec. 13, T. 4S, R. 13W, S. B. & 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</td>
<td>NWLB 8-1</td>
</tr>
<tr>
<td>&quot;&quot; 2</td>
<td>037-09793</td>
<td>NWLB 8-2</td>
</tr>
<tr>
<td>&quot;&quot; 3</td>
<td>037-06496</td>
<td>NWLB 8-3</td>
</tr>
<tr>
<td>&quot;&quot; 4</td>
<td>037-06415</td>
<td>NWLB 8-4</td>
</tr>
<tr>
<td>&quot;Pool&quot; 1</td>
<td>037-09795</td>
<td>NWLB 5-1</td>
</tr>
<tr>
<td>&quot;&quot; 2</td>
<td>037-00397</td>
<td>NWLB 5-2</td>
</tr>
<tr>
<td>&quot;&quot; 3</td>
<td>037-09796</td>
<td>NWLB 5-3</td>
</tr>
<tr>
<td>&quot;&quot; 4</td>
<td>037-09797</td>
<td>NWLB 5-4</td>
</tr>
<tr>
<td>&quot;Amebco&quot; 1</td>
<td>037-09788</td>
<td>NWLB 6-1</td>
</tr>
<tr>
<td>&quot;&quot; 2</td>
<td>037-09789</td>
<td>NWLB 6-2</td>
</tr>
<tr>
<td>&quot;Flood Control&quot;2</td>
<td>037-13525</td>
<td>NWLB 9-2</td>
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<tr>
<td>&quot;&quot; 3</td>
<td>037-09791</td>
<td>NWLB 9-3</td>
</tr>
<tr>
<td>&quot;&quot; 4</td>
<td>037-00392</td>
<td>NWLB 9-4</td>
</tr>
<tr>
<td>&quot;&quot; 5</td>
<td>037-00142</td>
<td>NWLB 9-5</td>
</tr>
<tr>
<td>&quot;&quot; 6</td>
<td>037-00393</td>
<td>NWLB 9-6</td>
</tr>
</tbody>
</table>

RWS:sc

cc: Update Center
EDP
Conservation Committee

By, Richard W. Stell
Acting Deputy Supervisor
R. A. Ybarra
Division of Oil and Gas

Gentlemen:

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

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

<table>
<thead>
<tr>
<th>OLD WELL #</th>
<th>OLD DESIGNATION</th>
<th>OLD NAME OIL OPERATORS</th>
<th>NEW WELL #</th>
<th>NEW DESIGNATION</th>
<th>NEW NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03709792</td>
<td></td>
<td>8-1</td>
<td>NORTHWEST LONG BEACH Unit 7</td>
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<tr>
<td>2</td>
<td>03709793</td>
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<td>8-2</td>
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<tr>
<td>3</td>
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<td>8-3</td>
<td>&quot;</td>
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<tr>
<td>4</td>
<td>03706415</td>
<td></td>
<td>8-4</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

RS/Dave Williams 9/25/79
OK to use "NWLBU"

[Signature]

Dawn Oil Co.
(Name of Operator)

23928 Lyons Ave
(Address)

Newhall, Calif 91321

By [Signature]

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

Gentlemen:

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

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

<table>
<thead>
<tr>
<th>OLD WELL #</th>
<th>OLD DESIGNATION</th>
<th>RESERVE</th>
<th>NEW WELL #</th>
<th>NEW DESIGNATION</th>
<th>NEW NAME</th>
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<tbody>
<tr>
<td>1</td>
<td>03709785</td>
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<td>5-1</td>
<td>NORTHWEST LongBEACH UNIT</td>
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</tr>
<tr>
<td>2</td>
<td>03700397</td>
<td></td>
<td>5-2</td>
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<td>03709796</td>
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<td>&quot;</td>
<td>&quot;</td>
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<tr>
<td>2</td>
<td>03709789</td>
<td>FLOOD CONTROL</td>
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<tr>
<td>2</td>
<td>03712525</td>
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<td>9-2</td>
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<td>03700393</td>
<td></td>
<td>9-6</td>
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<td>&quot;</td>
</tr>
</tbody>
</table>

Sun Oil Company
(Name of Operator)

23925 Lyons Avenue
(Address)

Newhall, Calif 91321

By Jack Andrews

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

**Field or county**

Long Beach

<table>
<thead>
<tr>
<th>Former owner</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Exploration Co.</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name and location of well(s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sec. 11-4S-13W</strong></td>
<td><strong>Sec. 13-4S-13W</strong></td>
</tr>
<tr>
<td>&quot;Dominguez&quot; 2-10 (037-11859)</td>
<td>&quot;Flood Control&quot; 6 (037-00393)</td>
</tr>
<tr>
<td>&quot;Amebco&quot; 1 (037-09788)</td>
<td>&quot;Oil Operators&quot; 1 (037-09792)</td>
</tr>
<tr>
<td>&quot;Amebco&quot; 2 (037-09789)</td>
<td>&quot;Oil Operators&quot; 2 (037-09793)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 2 (037-13525)</td>
<td>&quot;Oil Operators&quot; 3 (037-06496)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 3 (037-09791)</td>
<td>&quot;Oil Operators&quot; 4 (037-06415)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 4 (037-00392)</td>
<td>&quot;Pool&quot; 1 (037-09795)</td>
</tr>
<tr>
<td>&quot;Flood Control&quot; 5 (037-00142)</td>
<td>&quot;Pool&quot; 2 (037-00397)</td>
</tr>
<tr>
<td>Description of the land upon which the well(s) is (are) located</td>
<td></td>
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</table>

<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>Dec. 1, 1978</td>
<td>Sun Oil Company</td>
<td>Corporation</td>
</tr>
<tr>
<td>Address</td>
<td>23928 Lyons Avenue</td>
<td></td>
</tr>
<tr>
<td>Newhall, CA 91321</td>
<td>Telephone No.</td>
<td></td>
</tr>
</tbody>
</table>

**Reported by**

Former operator

**Confirmed by**

New operator

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

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

**OPERATOR STATUS ABBREVIATIONS**

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

**FORM AND RECORD CHECK LIST**

<table>
<thead>
<tr>
<th>Form or record</th>
<th>Initials</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map and book</td>
<td>F2</td>
<td>2-16-79</td>
</tr>
<tr>
<td>New well cards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDP lists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARC</td>
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<td></td>
</tr>
<tr>
<td>CC: FG</td>
<td>FG Update</td>
<td></td>
</tr>
<tr>
<td>Conservation Committee</td>
<td>Update Center</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. G. W. Stark, our representative met with Bob Grey, your representative, to witness that one support piling was cut 20 feet below ground level. The Division approves of this method of pile removal if the holes are filled with tamped earth.

Sincerely,

A. D. Stockton  
Associate Oil and Gas Engineer

ADS: dr
REPORT OF PROPERTY AND WELL TRANSFER

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

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: Old
Request designation of agent: No

Remarks:

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

INITIALS | DATE
--- | ---
Form 121 | 6B | 1-12-61
New Well Cards | 6B | 1-12-61
Electric Logs | c | 1-12-61
Production Reports | 130 | S.S. | 1-18-61
Map and Book | 190 | S.C. | 1-18-61
Form 148 | 6B | 1-12-61
Notice to be cancelled | 6B | 1-12-61

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"
January 11, 1961

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

Gentlemen

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

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

Yours truly

Wm. C. Bailey
Deputy Supervisor

By

J. H. Thomas
Associate Oil & Gas Engineer

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

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

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

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

1-11-61 (Date)

GENERAL EXPLORATION COMPANY
OF CALIFORNIA

By

(Signature)
January 6, 1961

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

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

Dear Mr. Bailey:

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

Section 13, Township 4 South, Range 13 West

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

Very truly yours,

G. B. Hall
Supervisor of Lease Processing

By W. A. Watson

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

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

Forms Filed

Date Rec'd. 10-3-44

Electric Log 1

Location

Elevation

ENGINEER

Form Needed

Map Correction

Form 1-50b (Date of Release)

At Request of Operator
Because Abandoned
Because Request by Oper.

Remarks

Subsequent Work Report
SUBMIT IN DUPLICATE  
STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS  

Subsequent Work Report  

Operator: Union Oil Company of California  
Field: Long Beach  
Well No.: Oil Operators #1, Sec. 13, T. 4-S, R. 13-W, S.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 Sept. 8, 1939, was filed.  

Signed:  

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

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

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Gross</th>
<th>Net</th>
<th>Gravity</th>
<th>Production Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-12</td>
<td>713</td>
<td>0</td>
<td>100.0</td>
<td>Cut Remarks:</td>
</tr>
<tr>
<td>9-14</td>
<td>698</td>
<td>0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>9-16</td>
<td>428</td>
<td>0</td>
<td>100.0</td>
<td>Changed pump.</td>
</tr>
<tr>
<td>9-18</td>
<td>640</td>
<td>0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>9-20</td>
<td>610</td>
<td>0</td>
<td>100.0</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. 1-43185

Los Angeles 14, Calif. September 8, 1944.

Mr. W. S. Eggleson,

Los Angeles 14, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

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

Casing Record

<table>
<thead>
<tr>
<th>Depth</th>
<th>Casing Diameter</th>
<th>Completion</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8&quot;</td>
<td>757'</td>
<td>6-5/8&quot;</td>
<td>1944</td>
</tr>
<tr>
<td>4529'</td>
<td>4475'</td>
<td>perf. 4479'</td>
<td>4529'</td>
</tr>
<tr>
<td>4532'</td>
<td>plugged</td>
<td>cement 4529'</td>
<td>4443'</td>
</tr>
</tbody>
</table>

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

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

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

THE INSPECTOR NOTED THAT the bailer could not be spudded below 4443' and brought up a sample of set cement.

The test was completed at 3:15 p.m.

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

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

AP: my

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 1-39843

Los Angeles 14, Calif. July 19, 1944

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

Dear Sir:

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

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:

1. Complete casing record.
2. Total depth 4532'
3. 13-3/8" C 757'
4. 8-5/8" C 4105' O.K.
5. 505' 6-5/8" L 4529', inc. 50' perf. C.P. 4475' (Top 161 ft. of liner Securaloy)

Well is non-commercial.

PROPOSAL:

"The proposed work is as follows:

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

DECISION:

THE PROPOSAL IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Mueller
Deputy

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

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

Santa Fe Springs, Calif. July 15, 1944

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at well No. Oil Operators 1

(Cross out unnecessary words)

Sec. 19, T. 4-S, R. 19-W, S.B. B. & M.

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.
   Total depth 4532'
   13-3/8' C 757'
   8-5/8' C 4105' O.K.
   505' 6-5/8' L 4529', inc. 50' perf. C.P. 4475' (Top 161 ft. of liner Securaloy)

   Well is non-commercial.

2. June, 1944 Prod. 82 22.1 99.3 (29 days)

   (Date) (Net Oil) (Gravity) (Cst)

The proposed work is as follows:

1. Clean out to 4529' and plug with cement to 4455'.
2. Test plug by Division of Oil and Gas.
3. Make casing test and if O.K., perforate 4250-4270'.
4. If casing test is wet, cement 4-3/4' casing 4020-4300'.
5. Perforate 4250-4270 and test.
6. If wet, plug to 4230' and test plug by Division of Oil and Gas.
7. Perforate 4105 to 4120 and test.

UNION OIL COMPANY OF CALIFORNIA

(Name of Operator)

By Division Engineer.
## Subsequent Work Report

**Operator:** Union Oil Co. of Calif.  
**Field:** Long Beach

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

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

Signed: [Signature]

**Date:** 9-8-39  
**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>
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</thead>
<tbody>
<tr>
<td>7-31-39</td>
<td>4155</td>
<td></td>
</tr>
<tr>
<td>8-10-39</td>
<td>4254</td>
<td></td>
</tr>
<tr>
<td>8-17-39</td>
<td>4532</td>
<td></td>
</tr>
<tr>
<td>8-21-39</td>
<td>4532</td>
<td></td>
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<tr>
<td>8-22-39</td>
<td>4532</td>
<td></td>
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<tr>
<td>8-25-39</td>
<td>4532</td>
<td></td>
</tr>
<tr>
<td>8-26-39</td>
<td>4532</td>
<td></td>
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<tr>
<td>8-27-39</td>
<td>4532</td>
<td></td>
</tr>
<tr>
<td>9-1-39</td>
<td>4532</td>
<td></td>
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<tr>
<td>9-4-39</td>
<td>4532</td>
<td></td>
</tr>
</tbody>
</table>

Rig up to pull liner and deepen. Cut and pulled all of liner. Deepening.

Deepened to 4532. 505.15 - 6-5/8 landed 4529 (hung on Burns line hanger) inc 49.68 of 120 mesh (12-1-1/2-8) Kobe and cemented thru Baker whirler basket at 4475 with 125 sacks Victor Oil Well cement. Top 160.91 of liner is 6-5/8 Secureloy.

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

0.0. to 4528. Bailing.

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

251 gross 184 Net 22.8 26.5% P 13 hr
254  " 246  " 22.0 2.5% P 24 hr
241  " 226  " 22.0 6.1% P 24 hr
235  " 201  " 22.0 14.3% P 24 hr
**LOG AND CORE RECORD OF OIL OR GAS WELL**

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

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

**FORMATIONS PENETRATED BY WELL**

<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>4155</td>
<td>4532</td>
<td>377</td>
<td>Drilled &amp; Quit on shell</td>
<td>Cored (See core record)</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
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<td>--------</td>
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</tr>
<tr>
<td>8-11-39</td>
<td>1</td>
<td>7-5/8&quot; Elliott</td>
<td>4375</td>
<td>4395</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>4385</td>
<td>4395</td>
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<td>4425</td>
<td>4435</td>
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<td>8-12-39</td>
<td>7</td>
<td>7-5/3&quot; Elliott</td>
<td>4435</td>
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<td>8</td>
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<td></td>
<td>9</td>
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<td>4455</td>
<td>4465</td>
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<tr>
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<td>10</td>
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<td>4465</td>
<td>4475</td>
</tr>
</tbody>
</table>

Henry Elliott
<table>
<thead>
<tr>
<th>DATE</th>
<th>CORE NO.</th>
<th>DRILLER</th>
<th>FROM</th>
<th>TO</th>
<th>TOTAL REC'D.</th>
<th>SHALE</th>
<th>OIL SAND</th>
<th>GRAY SAND</th>
<th>SHELL</th>
<th>DESCRIPTION OF CORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-12-39</td>
<td>11</td>
<td>Elliott</td>
<td>4475</td>
<td>4485</td>
<td>9.6</td>
<td>4.7</td>
<td>0.1</td>
<td>0.5</td>
<td>2.3</td>
<td>Hard brown shale, slightly silty in spots. 0.3 at top broken. Streaks of fine brown oil sand in bottom. 1.6 Firm fine brown oil sand. 0.6 Hard slightly silty brown shale with partings of fine brown oil sand. Firm to firm soft, fine brown oil sand, grading to medium at bottom. Good odor and dark amber cut. 0.2 Hard brown shale. 0.8 Firm, fine slightly argillaceous brown oil sand.</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>4485</td>
<td>4490</td>
<td>4.7</td>
<td>0.1</td>
<td>0.1</td>
<td>0.6</td>
<td>2.3</td>
<td>Firm fine dark brown oil sand. Hard brown shale. Firm fine brown oil sand. Good odor and dark amber cut. Hard brown shale. Firm soft medium brown oil sand. Hard slightly silty brown shale. Soft fine brown oil sand, mixed with mud. 0.5 Hard brown shale. 0.1 Firm fine brown oil sand. Hard brown shale, apparent dip 30°</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td>4490</td>
<td>4500</td>
<td>2.7</td>
<td>1.5</td>
<td>1.2</td>
<td>2.7</td>
<td>1.0</td>
<td>Hard broken brown shale, apparent dip 30°. Hard broken brown shale, badly broken in coring and mixed with mud. 0.1 crushed zone at top.</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>4500</td>
<td>4510</td>
<td>0.0</td>
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<td>No recovery.</td>
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<tr>
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<td>4510</td>
<td>4515</td>
<td>0.0</td>
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<td>No recovery.</td>
</tr>
<tr>
<td>8-13-39</td>
<td>16</td>
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<td>4515</td>
<td>4520</td>
<td>0.0</td>
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<td></td>
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<td></td>
<td>No recovery.</td>
</tr>
<tr>
<td>DATE</td>
<td>CORE NO.</td>
<td>DRILLER SIZE &amp; TYPE BARREL</td>
<td>FROM</td>
<td>TO</td>
<td>TOTAL RECRT.</td>
<td>SHALE</td>
<td>OIL SAND</td>
<td>GRAY SAND</td>
<td>SHELL</td>
<td>DESCRIPTION OF CORE</td>
</tr>
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<td>--------</td>
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<tr>
<td>8-13-39</td>
<td>17</td>
<td>7-5/8&quot; Elliott</td>
<td>4520</td>
<td>4525</td>
<td>5.8</td>
<td>3.6</td>
<td></td>
<td></td>
<td>2.2</td>
<td>Firm medium brown oil sand, grading to coarse pebbly brown oil sand, good odor and dark amber cut</td>
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<td></td>
<td>18</td>
<td></td>
<td>4523</td>
<td>4530</td>
<td>5.7</td>
<td>3.4</td>
<td></td>
<td></td>
<td>2.3</td>
<td>Firm soft medium to coarse, slightly pebbly in spots, brown oil sand, good odor and dark amber cut</td>
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<td></td>
<td>19</td>
<td></td>
<td>4530</td>
<td>4532</td>
<td>2.9</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
<td>Firm soft to soft coarse, slightly pebbly brown oil sand. Fair odor and dark amber cut. Sand does not look too good</td>
</tr>
</tbody>
</table>

T.D. 4532 8-13-39
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Name of Operator

Address

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

Logs

History

Core record

Subsequent work

R. D. BUSH, State Oil and Gas Supervisor

By

Deputy

No. 5731

UNION OIL CO. OF CALIF.

LOS ANGELES

Calif.

9/15/39

R. D. BUSH, State Oil and Gas Supervisor

By

Deputy
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-36446

Los Angeles, Calif. August 29, 1939

Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Operations at your well No. "OIL OPERATORS" 1 Sec. 13, T. 45 S., R. 13 W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, Engineer, representative of the supervisor, on August 21, 1939. There was also present H. E. Winter, Engineer, and H. C. Richardson, Foreman.

Casing Record

<table>
<thead>
<tr>
<th>Depth</th>
<th>Diameter</th>
<th>PVC</th>
<th>Perm.</th>
<th>Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-3/8</td>
<td>757 ft.</td>
<td>8-5/8</td>
<td>1,105 ft.</td>
<td>Junk None.</td>
</tr>
</tbody>
</table>

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

and the data and conclusions are as follows:

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

1. The 6-5/8" liner landed at 4125 ft was all recovered.
2. An 8½" rotary hole was drilled from 4105 ft to 4532 ft.
3. Mud fluid was circulated 4 hr. before cementing the casing.
4. Electrical core readings showed the following: 4140 ft - 4180 ft - shale (J-K).
5. On August 17, 1939, 505 ft of 6-5/8" casing (top 161 ft Securalloy, bottom 344 ft - 26 lb.), including 50 ft of perforated, was landed at 4529 ft and was cemented through perforations at 4475 ft with 125 sacks of Victor cement.
6. Cement was drilled out of the 8-5/8" and 6-5/8" casings from 379 ft to 4035 ft, equivalent to 68 sacks, and the casing was cleaned out to 4130 ft.
7. The fluid was bailed to 2800 ft at 4:45 p. m., on August 21, 1939.

ENGINEER PEIRCE NOTED THE FOLLOWING:

1. The fluid rose 10 ft in 7½ hr., equivalent to 1 bbl. per 24 hr.
2. The hole was open to 4200 ft.

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

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT fluid does not have access to the well between the 6-5/8" and 8-5/8" casings.

cc: H. E. Winter
Long Beach

GP: G

R. D. BUSH
State Oil and Gas Supervisor

By: Sig. Deputy
Report on Proposed Operations

No. P 1-34051

Los Angeles, Calif. July 26, 1939.

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

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 1, Section 13, T. 4 S., R.17 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated July 24, 1939, received July 26, 1939, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:
"The present condition of the well is as follows:
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."

PROPOSAL:
"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'."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 6-5/8" and 8-5/8" casings.

cc- H. E. Winter
Long Beach
WJG:OH

R. D. BUSH
State Oil and Gas Supervisor
By
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  19  39

DIVISION OF OIL AND GAS

Los Angeles  Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering well No. 01 Oil Operators # 1

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' 0 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'.

[Signature]

UNION OIL COMPANY OF CALIFORNIA

(Name of Operator)

By  Henry Ewing  Division Engineer

Address Notice to DIVISION OF OIL AND GAS in District Where Well is Located
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
LOS ANGELES
Calif. 11/30/1937

Name of Operator

Address

This is to acknowledge the receipt of logs and similar records of wells on Sec. 18 T. 13 W., as herewith enumerated by well numbers.

Logs:

History
Core record
Subsequent work

R. D. BUSH, State Oil and Gas Supervisor

DUPLICATE

By:  E. August

FORM 127  NO. 62  10/37  3M