

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

## CHECK LIST - RECORDS RECEIVED AND WELL STATUS

| Company: | Pacific Coast Energy Company | Well: West Pico 12 |
| :--- | :--- | :--- |
| API\#: | 037-20146 | Sec. 30, T. 1S, R.14W. S. B. B. \& M. |
| County: | Los Angeles | Field: Beverly Hills |




| RECORDS NOT APPROVED | RECORDS APPROVED $2 / 2 / 15$ |
| :--- | :--- |
| (Reason:) | (Signature) |
|  | RELEASE BOND |
|  | Date Eligible |
|  | (Use date last needed records received.) |
|  | MAP AND MAP BOOK |
|  |  |



[^0]-812\mp@subsup{5}{}{\prime},\mathrm{ , cut \& pulled
fr. 7572'. TD 8200', plugged w/cem. 8120'-7513'.

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The operations were performed for the purpose of testing the location and hardness of a cement plug placed from \(7572^{\prime}\) to \(7513^{\circ}\) in the process of plugging back to redrill．
Mr．Donoghue reported：
1．The \(6-5 / 8^{\prime \prime}\) casing was shot at \(7572^{\circ}\) and was pulled out of the hole．
2．On September \(10,1968,36\) sacks of cement mixed with 36 cubic feet of pozzolan D， \(18 \%\) salt， \(4 \% \mathrm{gel}\) and \(0.75 \%\) CFR－2 was pumped into the hole through \(4^{\prime \prime} \mathrm{drill}\) pipe hanging at \(8120^{\prime}\) ，filling to \(7564^{\circ}\) ．
3．Cement was drilled out of the hole to 7572＇．
4．On September \(11,1968,67\) sacks of cement mixed with 13 sacks of sand， \(15 \%\) salt and \(0.75 \%\) CFR－2 was pumped into the hole through \(4^{\prime \prime}\) drill pipe hanging at \(7572^{\prime}\) ．

THE ENGINEER NOTED THAT the cement plug at the reported depth of \(7513^{\prime}\) supported \(1 / 4\) of the weight of the drill pipe．
the location and hardness of the cement plug at 7513＇are approved．

GL：nw
ce Corapany

E．E．KASLINE

\section*{DIVISION OF OIL AND GAS}

\section*{REPORT ON PROPOSED OPERATIONS No. P 168-1164}

SEC. 3606 WELL L
Mr. Eugene F. Reid, Agent OCCIDENTAL PETROLEUM CORPORATION 5000 Stockdale Highway
tyguxxiox Bakersfield, California 93309
Dear Sir:
(037-20146)
Your \(30 \quad 1 \mathrm{~s} \quad 14\) proposal to redrill \& deepen Well No. "West Pica" 12 Section 30, T. 1 S , R. 14 W, S.B. B. \& M., Beverly Hills Field, Los Angeles County, dated Aug. 23,1968, received Aug. 27,1968, has been examined in conjunction with records filed in this office.

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE. \(20^{\prime \prime} \mathrm{cem} .40^{\prime}\).
With reference to your notice our decision is as follows:
DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS the location and hardness of the cement plug.

RC: nw
ce Company

Blanket Bond

\title{

}

This notice must be given before work begins; one copy only
Bakersfield,
Calif.
August 23, 19-68

\section*{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
 (Cross out unnecessary words) Sec. \(30 \quad\), T. 1 S. \(\quad\) R. 14 W., S. B. B. \& M. Beverly Hills

Field, \(\qquad\) Los Angeles \(\qquad\) County.

The present condition of the well is as follows:
1. Total depth. \(8200^{\prime}\).
2. Complete casing record, including plugs:
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13-3/8'" cemented at 1224'.
8-5/8'' 36非 cemented at 7512'. W.S.O. 7394'.
6-5/8'' 24非, J-55, SFJ liner hung 7476' to 8125'.
Burns lead seal hanger. }60\mathrm{ mesh perforations.

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3. Last produced. August 22, 1968


696

The proposed work is as follows:
1. Kill well and install B.O.P.E.
2. Pull and lay down tubing.
3. Pull liner as deep as possible. Mill off top of liner if necessary so that at least \(60^{\prime}\) of open hole is below casing shoe.
4. Run tubing stinger to bottom and plug to shoe of \(8-5 / 8^{\prime \prime}\) casing.
5. Wipe off top of plug. Division of \(0 i 1\) and Gas to witness location and hardness of cement plug.
6. Directionally redril1 7-5/8' hole to \(9500^{\prime} \pm\).
7. Run \(6-5 / 8^{\prime \prime}\) blank and perforated 1 iner and cement to \(8-5 / 8^{\prime \prime}\) shoe.
5000 Stockdale Highway
Bakersfield, California 93309
805 \begin{tabular}{l} 
(Address) \\
\(827-7351\)
\end{tabular}
(Telephone No.)

OCCIDENTAL PETRDEEUY CORPORATION


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

\section*{CONFIDENTIAL DIVISION OF OIL AND GAS}

\section*{WELL SUMMARY REPORT \\ SUBMIT IN DUPLICATE}

OperatoOCCIDENTAL PETROLEUM CORPORATION Well No. "West Piso" 12
Sec. 30
T. 1 S.
R. 14 W.
SB.
B. \& M. Beverly Hills
Field Los Angeles
County.

\section*{Location From the intersection of the center lines of Piso Boulevard and Oakhurst, \(106^{\prime}\) North along the center} line of Oakhurst, thence \(81^{\prime}\) East at \(90^{\circ}\) angle. \(\qquad\) Elevation of ground above sea level 171 feet

All depth measurements taken from top of Kelly Bushing (183.5' K.B.) \(\qquad\) which is. \(\qquad\) 12.5 .feet above ground.

In compliance with Sec. 3215 , of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

\section*{Date August 11, 1967}

Charles C. Horace
W. R. Higdon


Signed
Title Vice President and Agent
(Superintendent)


Commenced drilling May 23, 1967
Completed drilling June 30, 1967
Total depth 8200 Plugged depth None
Junk None
\(\qquad\)

Commenced producing \(\quad 6 / 29 / 67\)
\(\underset{\text { Flowing }}{\text { (Cross out unnecessary words) }}\)
geological markers
DEPTH
DIVISION OF OH AND RECEIVED



Casing Record (Present Hole)


Perforated Casing
(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
\(6-5 / 8^{\prime \prime}, 7476.31^{\prime}\) to \(8125^{\prime}\). Perforated from \(8125^{\prime}\) to \(7981.63^{\prime}, 7961.63^{\prime}\) to \(7789.99^{\prime}\) and \(7747.97^{\prime}\) to \(7509.81^{1}\) with 60 mesh, 24 rows, 2 " slots, 6 " centers. Machine cut.

Was the well directionally drilled? Yes \(\triangle\) os p


Operator OCCIDENTAL PETROLEUM CORPORATIONELD Beverly Hills


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.
Gene Reid Drilling, Inc., Contractor
All measurements taken from K.B. which is \(12.5^{\prime}\) above ground ( \(183.5^{\prime}\) K.B.).
Spudded at 10:15 a.m. Drilled 12-1/4" hole to 616'.

Opened \(12-1 / 4^{\prime \prime}\) hole to \(17-1 / 2^{\prime \prime}\) from \(147^{\prime}\) to \(1224^{\prime}\). Circulated and conditioned mud preparatory to running casing.

Ran 30 joints (including cut-off), 1226.00' on hook, of \(13-3 / 8^{\prime \prime} 48^{\#}, \mathrm{H}-40\), new, seamless casing with Baker guide shoe at 1224', baffle plate at 1200' and ten B\&W centralizers--two on shoe joint and one every \(40^{\prime}\) from shoe joint to \(800^{\prime}\).
\begin{tabular}{|c|c|c|c|c|}
\hline Joints & Description & From & To & Footage \\
\hline & Baker guide shoe & \(1224.00^{1}\) & \(1222.58{ }^{\prime}\) & \(1.42^{\prime}\) \\
\hline Short Joint & 13-3/8" \(48^{\#}, \mathrm{H}-40\), new, seamless, short T\&C & 1222.58' & 1198.41 & \(24.1{ }^{\prime}\) \\
\hline 29 & \multirow[t]{4}{*}{13-3/8" 48\#, H-40, new, seamless,} & 1198.41 & \(+2.00{ }^{\prime}\) & \(1200.41{ }^{1}\) \\
\hline \multirow[t]{3}{*}{30} & & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Total Run \\
Feet Above K.B.
\end{tabular}}} & \(1226.00^{\prime}\) \\
\hline & & & & \(2.00^{\prime}\) \\
\hline & & \multicolumn{2}{|l|}{Landing Point} & 1224.00' \\
\hline
\end{tabular}

Cemented with 600 sacks of Permanente Class "G" cement premixed with \(4 \%\) gel followed by 100 sacks of neat Class "G" cement treated with \(2 \%\) calcium chloride. Used one top and one bottom rubber plugs. Displaced cement with 1000 cubic feet of mud. Did not bump plugs. Had good cement returns to the surface. Cement in place at 7:00 p.m.

Landed \(13-3 / 8^{\prime \prime}\) casing at 1224'.

\title{
OCCIDENTAL PETROLEUM CORPORATION
}
"West Pico" 12
Section 30, T. 1 S., R. 14 W., S.B.B.\& M.

1967
\(\overline{5 / 26}\)

5/27 Directionally drilled \(12-1 / 4\) " hole from \(1512^{\prime}\) to \(2324^{\prime}\). Pulled out and laid down spud bit. Ran in with 12-1/4" bit and directionally drilled 12-1/4" hole from 2324' to \(2515^{\prime}\).

5/28 Directionally drilled \(12-1 / 4^{\prime \prime}\) hole from \(2515^{\prime}\) to \(3704^{\prime}\). Pulled out.
5/29 Ran in with 12-1/4" bit with Dyna-Drill and oriented Dyna-Drill at 3704'. Directionally drilled \(12-1 / 4^{\prime \prime}\) hole from \(3704^{1}\) to 3754'. Pulled out and laid down Dyna-Drill. Ran in with 12-1/4" bit and directionally drilled 12-1/4' hole from 3754' to 4115'. Lost 850' of wire line and survey tool in the hole. Commenced pulling out of hole.

5/30 Completed pulling out of hole. Bumper sub broke. Left two 7" drill collars, two 7" monels, float sub, 12-1/4" Driltrol and 12-1/4" bit in the hole. Total fish: 116'. Top of fish at 3999'. Bottom of fish at \(411^{\prime}\) '. Ran in with Baash-Ross overshot, bumper sub and jars and took hold of fish. Pulled out. Recovered all of the fish. Ran in with 12-1/4" bit to 3984' and circulated. Ran on in to \(4115^{\prime}\) and directionally drilled 12-1/4" hole from \(4115^{\prime}\) to \(4352^{\prime}\).

5/31 Directionally drilled \(12-1 / 4^{\prime \prime}\) hole from 4352' to \(4905^{\prime}\).
6/1 Directionally drilled 12-1/4" hole from 4905' to 5418'. Installed Exploration Logging Unit at 5390'. Stuck pipe while switching pumps and preparing to pull. Bit 20' off bottom; pipe stretch indicated stuck at about 4000'.

Spotted oil and staged every 3 hours. Worked pipe. Did not come free. Ran free point indicator. Pipe stuck from \(4325^{\prime}\) to \(1330^{\prime}\). Pulled out. Ran string shot and backed off at 1211'. Pulled out and recovered \(12-3 / 4\) stands of \(4 "\) drill pipe.

Ran in with Shaffer Wagner bumper sub and hydraulic jars and screwed onto fish. Cir- culated briefly but jumped pin on sub. Pulled out. Ran in with \(7-5 / 8\) " Bowen socket with \(9-1 / 4^{\prime \prime}\) lip guide, \(5-1 / 4^{\prime \prime}\) grapple, packoff rubber, bumper sub and \(5-1 / 16^{\prime \prime}\) drill collar. Got over fish and packed off. Circulated. Mixed 50 gallons mud lube and conditioned mud. Ran Dia-Log free point indicator and string shot and backed off at 4885'. Shot failed. Pulled out.
\(\frac{1967}{6 / 4}\)
Ran string shot and backed off at \(4880^{\prime}\) (one single above drill collars). Pulled out and recovered \(3665^{\prime}\) of drill pipe and \(7-5 / 8^{\prime \prime}\) key seat wiper. Ran in with bumper sub and jars and screwed onto fish at \(4880^{\prime}\). Jarred on fish and fish came loose. Pulled out. Recovered all of the fish. Ran in with \(12-1 / 4^{\prime \prime}\) bit and reamed tight hole from 5288' to 5418'. Circulated and conditioned mud. Directionally drilled 12-1/4" hole from 5418' to 5462'.

Directionally drilled 12-1/4" hole from 5462' to 5979'.
6/6 Directionally drilled \(12-1 / 4^{\prime \prime}\) hole from 5979' to 6268'. Pulled out and found bumper sub had parted. Left in the hole 12-1/4" bit, monet collar, Driltrol, three drill collars and mandrel off bumper sub.

6/7 Ran in with fishing tools and found top of fish at 5970'. Attempt to recover fish unsuccessful. Pulled out. Ran in with Baash-Ross socket with extension and worked over fish. Pulled out. Recovered all of the fish. Ran in with \(12-1 / 4\) " bit to \(6268^{\prime}\) and circulated for 30 minutes; hole tight. Directionally drilled 12-1/4" hole from 6268' to 6348'.

6/8 Directionally drilled 12-1/4" hole from 6348' to 6738'.
6/9 Directionally drilled \(12-1 / 4\) " hole from 6738' to 7012'.
\(6 / 10\) Directionally drilled \(12-1 / 4^{\prime \prime}\) hole from 7012' to 7290'. Commenced pulling out of hole. Worked pipe through tight spot at 4912'. Pipe pulling tight.

6/11 Continued pulling pipe out of hole. Pipe pulling tight. Worked pipe through tight hole at 1800'. Pipe pulled tight to 1575'. Worked pipe to \(1563^{\prime}\) and pipe stuck. Spotted oil and worked pipe without success. Ran in with Dia-Log free point indicator and string shot and backed off at 1072'. Pulled out. Ran in with seven 6" drill collars, bumper sub and jars and screwed into fish. Jarred on fish for \(4-1 / 2\) hours.

6/12 Jarred on fish. Pulled out and recovered four \(6^{\prime \prime} \times 30^{\prime}\) drill collars. Ran in with DeaLog free point indicator and string shot and backed off at 1204'. Pulled out. Ran in with Bowen jars and safety joint and screwed into fish at 1204'. Jarred on fish.

6/13 Jarred on fish. Fish did not come free. Pulled out. Ran in with 9 " washpipe and washed over fish. Fish came free. Pulled out and recovered all of the fish. Ran in with \(12-1 / 4^{\prime \prime}\) bit to \(3627^{\prime}\) and circulated.

6/14 Circulated at \(3627^{\prime}\). Ran on in to 6950' and hit bridges. Cleaned out bridges and reamed continuously from 6950' to \(7290^{\prime}\). Circulated and conditioned mud. Directionally drilled 12-1/4" hole from 7290' to 7526'.

6/16 Circulated and conditioned mud preparatory to running casing. Pulled out.
Ran 176 joints, \(7517.67^{\prime}\) on hook, of \(8-5 / 8^{\prime \prime} 36^{\#}, \mathrm{~N}-80\) and J -55 , new, seamless casing with Larkin guide shoe at 75 12' \(^{\prime}\), Larkin differential collar at 7465.62', one B\&W central izer with KK-6 bows on shoe and one on each joint to 6300', one B\&W centralizer with KK-6 bows every \(30^{\prime}\) from 6300' to \(5700^{\prime}\) and one B\&W centralizer with KK-2 bows on collar of each joint from \(5700^{\prime}\) to \(3900^{\prime}\). Total of 113 centralizers used.
\begin{tabular}{|c|c|c|c|c|}
\hline Joints & Description & From & To & Footage \\
\hline & Larkin guide shoe & \(7512.00{ }^{1}\) & \(7510.80^{\prime}\) & \(1.20{ }^{\prime}\) \\
\hline 1 & 8-5/8" \(36^{\#}\), \(\mathrm{N}-80\), new, seamless, 8 & \(7510.80^{\prime}\) & \(7467.65^{\prime}\) & \(43.15{ }^{\prime}\) \\
\hline & round thread, long T\& C, sand blasted Larkin differential collar & \(7467.65^{\prime}\) & \(7465.62^{\prime}\) & \(2.03{ }^{1}\) \\
\hline 16 & 8-5/8" \(36^{\#}, N-80\), new, seamless, 8 round thread, long T\&.C, sand blasted & \(7465.62^{\prime}\) & \(6787.42^{\prime}\) & \(678.20^{1}\) \\
\hline 109 & 8-5/8" \(36^{\#}, N-80\), new, seamless, 8 round thread, long T\& C & 6787.42' & \(2124.33^{\prime}\) & \(4663.09{ }^{1}\) \\
\hline 50 & 8-5/8" 36", J-55, new, seamless, 8 round thread, long T\& C & 2124.33' & +5.67 & \(2130.00^{\prime}\) \\
\hline \multirow[t]{3}{*}{176} & & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Total Run Feet Above K.B.}} & \(7517.67^{1}\) \\
\hline & & & & \(5.67{ }^{\prime}\) \\
\hline & & \multicolumn{2}{|l|}{Landing Point} & 7512.001 \\
\hline
\end{tabular}

Pumped in 250 cubic feet of Halliburton MF-1. Cemented with 700 sacks of Permanente Class "G" cement premixed with \(0.75 \%\) CFR-2: First 500 sacks 117\# slurry; last 200 sacks \(125^{\#}\) slurry. Used one top and one bottom rubber plugs. Displaced cement with 2600 cubic feet of mud. Bumped plugs. Pressure range during displacement was \(2000^{\#}\) to \(2100^{\#}\). Final pressure 2000\#. Mixing time: 14 minutes. Displacing time: 45 minutes. Cement in place at 4:05 p.m.

Landed 8-5/8" casing at 7512'. Installed O.C.T. tubing head and tested with 1200\#, O.K.

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\(\frac{1967}{6 / 17}\)

6/18 Stood cemented 8 hours. Reran Go-Western Cement Bond Log; tool would not go to bottom. Pulled out. Ran in with \(7-5 / 8^{\prime \prime}\) bit to top of cement plugs and circulated and conditioned mud. Pulled out. Reran Go-Western Cement Bond Log and tool failed to work. Pulled out.

Ran Go-Western Gamma Ray Log and recorded from 7465' to 7000' (Go-Western's measurements).

Ran Go-Western jet gun perforator and perforated four holes at 7394'. Pulled out.
W.S.O. (7394'): Ran Halliburton tester on dry 4" F.H. drill pipe. Set \(7-3 / 8^{\prime \prime}\) packer at 7364' with 2-7/8" tail extending to 7381'. Opened tool at 11:00 p.m. on 5/8" bottom hole bean for 1 hour test. Had a light blow for 3 minutes, dead for 28 minutes, then a puff blow for 29 minutes. Closed tool at 12:00 Midnight.

6/19 Pulled tester. Recovered 80' of slightly gas-cut drilling mud. W.S.O. test witnessed and approved by a representative of the Division of Oil and Gas.
\begin{tabular}{lrcc} 
& Top Recorder & & Bottom Recorder \\
\cline { 2 - 2 } & & & \\
Initial Hydrostatic Pressure & 3115 psi & & 3131 psi \\
Initial Flowing Pressure & 42 psi & & 47 psi \\
Final Flowing Pressure & 63 psi & & 63 psi \\
Final Hydrostatic Pressure & 3106 psi & & 3124 psi
\end{tabular}

Recorded Temperature \(177^{\circ} \mathrm{F}\) at \(7380^{1}\)

Ran in with 7-5/8" bit to top of cement plugs and displaced Baroid CQ Aktaflo-S (lignosulfonate) drilling mud with Baroid Invermul inverted oil emulsion mud. Drilled out plugs, differential collar, cement and shoe to \(751^{\prime}\) and cleaned out from \(751^{\prime}\) to \(7526^{\prime}\). Directionally drilled 7-5/8' hole from 7526' to 7630'.

\title{
OCCIDENTAL PETROLEUM CORPORATION
}
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1967
\(6 / 20\)
6/21
6/22

6/23 Circulated hole clean. Pulled out to test.
OHT \#1 (8200-8080'): Ran Halliburton tester on dry 4" drill pipe. Set two 7" packers at \(8073^{\prime}\) and \(8080^{\prime}\) with \(5-3 / 4^{\prime \prime}\) tail extending to \(8200^{\prime}\). Opened tool at \(7: 15 \mathrm{a} . \mathrm{m}\). on \(3 / 4\) " bottom hole bean \(\times 1\) "adjustable surface bean for 5 -minute initial flow. Closed tool at 7:20 arm. for a 45-minute initial shut-in. Re-opened tool at 8:05 adm. on 3/4" bottom hole bean \(\times 1\) "adjustable surface bean for 90 -minute flow test. Gas to surface in 5 minutes. Had a medium strong blow. Gas rate for the last 30 minutes was 45 Mcf per day. Closed tool at 9:35 arm. Made a \(45-\) minute final shut-in. Pulled tester. Recovered 3675' (39-1/2 barrels): 36 barrels of oil and \(3-1 / 2\) barrels of drilling mud. No water. Oil \(27^{\circ} \pm\) A.P.I. gravity .


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\(\frac{1967}{6 / 24}\)
Ran in with 7-5/8" bit with Security 6-point reamer and reamed hole to 8200'. Circulated and conditioned mud preparatory to running liner.

Ran 17 joints, 645.19 ', of \(6-5 / 8^{\prime \prime} 24^{\#}, \mathrm{~J}-55\), Security flushjoint, blank and perforated liner plus \(3.50^{\prime}\) Burns lead seal hanger ( \(648.69^{\prime}\) ) and hung liner at \(8125^{\prime}\). Top of hanger at \(7476.31^{\prime}\). Perforated from \(8125^{\prime}\) to \(7981.63^{\prime}, 7961.63^{\prime}\) to \(7789.99^{\prime}\) and \(7747.97{ }^{\prime}\) to 7509.8 1


OCCIDENTAL PETROLEUM CORPORATION
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1967
\(\overline{6 / 25}\)
6/26
Completed running \(3-1 / 2^{\prime \prime} 9.2^{\#}, \mathrm{~J}-55\), National seal-lock tubing with Kobe pump housing, safety joint, side-door valve and tubing tail and landed at 7944.34'.
Tubing was hydro tested to 6000 psi.

\section*{TUBING DETAIL}

First String:
\begin{tabular}{|c|c|c|c|c|}
\hline Joints & Description & From & To & Footage \\
\hline \multirow[t]{8}{*}{16} & 3-1/2" 9.2\#, J-55, new, National seallock tubing & 7944.34' & 7454.31 & \(490.03^{1}\) \\
\hline & Crossover (National seal-lock to 3-1/2" 8 round thread) & 7454.3 & 7453.31 & 1.001 \\
\hline & Crossover ( \(3-1 / 2\) " 8 round thread to \(2-7 / 8^{\prime \prime} 8\) round thread) & 7453.3 & \(7452.25{ }^{\prime}\) & \(1.06{ }^{1}\) \\
\hline & Safety joint & \(7452.25^{\prime}\) & \(7450.92^{1}\) & \(1.33{ }^{\prime}\) \\
\hline & Side-door valve & \(7450.92{ }^{\prime}\) & \(7448.08{ }^{\prime}\) & \(2.84{ }^{\prime}\) \\
\hline & Collar & \(7448.08{ }^{\prime}\) & \(7447.68^{\prime}\) & . \(40^{\prime}\) \\
\hline & Kobe pump housing & \(7447.68{ }^{\prime}\) & \(7423.72^{\prime}\) & \(23.96{ }^{1}\) \\
\hline & Crossover ( \(3-1 / 2^{\prime \prime} 8\) round thread to 3-1/2" National seal-lock) & 7423.72' & \(7422.7{ }^{\prime}\) & \(1.00{ }^{\prime}\) \\
\hline \multirow[t]{2}{*}{242} & 3-1/2" 9.2\#, J-55, new, National seallock tubing & \(7422.72{ }^{\prime}\) & \(18.00{ }^{\prime}\) & \(7404.7{ }^{1}\) \\
\hline & K.B. to Tubing Head & 18.00' & 01 & \(18.00{ }^{\prime}\) \\
\hline 258 & & Total Tubi & Landed & 7944.34' \\
\hline
\end{tabular}

Commenced running 2-3/8" 4.6\#, J-55, National seal-lock tubing.
6/27 Completed running 2-3/8" \(4.6^{\#}, \mathrm{~J}-55\), National seal-lock tubing and landed at 7428.59 ' Tubing was hydro tested to 5000 psi.

Second String:
\begin{tabular}{|c|c|c|c|c|}
\hline Joints & Description & From & To & Footage \\
\hline \multirow{6}{*}{238} & Stinger & \(7428.59^{\prime}\) & \(7426.57{ }^{\prime}\) & \(2.02{ }^{\prime}\) \\
\hline & Pup joint & \(7426.57{ }^{\prime}\) & \(7420.22^{\prime}\) & \(6.35{ }^{\prime}\) \\
\hline & 2-3/8" 4.6\#, J-55, new, National seallock tubing & \(7420.22^{\prime}\) & \(22.5{ }^{\text {' }}\) & \(7397.72^{\prime}\) \\
\hline & Pup joint & \(22.50{ }^{1}\) & \(18.50{ }^{\text {1 }}\) & \(4.00{ }^{\prime}\) \\
\hline & Pup joint & \(18.50{ }^{\prime}\) & \(17.50{ }^{\prime}\) & \(1.00{ }^{\prime}\) \\
\hline & K.B. to Tubing Head & \(17.50^{\prime}\) & \(0^{1}\) & \(17.50{ }^{\prime}\) \\
\hline 238 & 11 & Total Tubi & Landed & \(7428.59{ }^{\prime}\) \\
\hline
\end{tabular}
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OCCIDENTAL PETROLEUM CORPORATION
"West Pico" }1
Section 30, T. 1 S., R. }14\mathrm{ W., S.B.B.\&M.
(Continued)
Ran 2-3/8" 4.6\#, J-55, National seal-lock tubing and landed at 7416.15'. Tubing was hydro tested to 5000 psi.

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\section*{TUBING DETAIL}

Third String:
\begin{tabular}{|c|c|c|c|c|}
\hline Joints & Description & From & To & Footage \\
\hline \multirow{7}{*}{237} & Stinger & \(7416.15^{\prime}\) & 7414.15' & \(2.00^{1}\) \\
\hline & Pup joint & \(7414.15^{\prime}\) & \(7403.95^{\prime}\) & \(10.20^{\prime}\) \\
\hline & 2-3/8" 4.6\#, J-55, new, National seallock tubing & \(7403.95^{\prime}\) & \(41.50{ }^{\prime}\) & \(7362.45{ }^{\prime}\) \\
\hline & Pup joint & \(41.50{ }^{\prime}\) & \(29.50{ }^{1}\) & \(12.00{ }^{\prime}\) \\
\hline & Pup joint & \(29.50{ }^{\prime}\) & \(23.50{ }^{\prime}\) & \(6.00^{\prime}\) \\
\hline & Pup joint & \(23.50{ }^{\prime}\) & \(17.50{ }^{\prime}\) & \(6.00^{1}\) \\
\hline & K.B. to Tubing Head & \(17.50{ }^{\prime}\) & \(0{ }^{1}\) & \(17.50{ }^{\prime}\) \\
\hline 237 & & Total Tub & Landed & 7416.15' \\
\hline
\end{tabular}

Picked up second string of tubing; would not seat. Commenced pulling second string of tubing.

6/28 Completed pulling second string of tubing. Found worn collar. Replaced collar. Reran 2-3/8" 4.6", J-55, National seal-lock tubing and landed at 7428.59'. Tubing was hydro tested to 5000 psi .

\section*{TUBING DETAIL}

\section*{Second String:}
\begin{tabular}{|c|c|c|c|c|}
\hline \(\underline{\text { Joints }}\) & Description & From & To & Footage \\
\hline & Stinger & \(7428.59^{1}\) & \(7426.57{ }^{\prime}\) & \(2.02{ }^{\prime}\) \\
\hline & Pup joint & \(7426.57{ }^{\prime}\) & \(7420.22^{\prime}\) & \(6.35{ }^{\prime}\) \\
\hline 238 & 2-3/8" 4.6\#, J-55, new, National seallock tubing & 7420.22' & 22.50 & \(7397.72^{\prime}\) \\
\hline & Pup joint & \(22.50{ }^{\prime}\) & \(18.50{ }^{\prime}\) & \(4.00{ }^{\prime}\) \\
\hline & Pup joint & \(18.50{ }^{\prime}\) & \(17.50{ }^{1}\) & \(1.00{ }^{\prime}\) \\
\hline & K.B. to Tubing Head & \(17.50{ }^{\prime}\) & \(0^{\prime}\) & \(17.50{ }^{\prime}\) \\
\hline 238 & & Total Tubi & Landed & \(7428.59{ }^{1}\) \\
\hline
\end{tabular}

Spaced and landed \# 1 side string. Spaced and landed \({ }^{\#} 2\) side string. Dropped standing valve. Bundle tested tubing to 1500 psi, O.K. Retrieved standing valve.
OCCIDENTAL PETROLEUM CORPORATION
"West Rico" 12
Section 30, T. 1 S., R. 14 W., S.B.B.\& M. ..... Page 11
\(\overline{6 / 29}\) Removed B.O.P. equipment. Installed Xmas tree. Hookup lines. Displaced Baroid Invermul inverted oil emulsion mud with crude oil. Well came in flowing. Flowed displacement oil. Placed well on production at 1:00 p.m., June 29, 1967.
6/30 Released rig at 8:00 a.m., June 30, 1967.

WELL NO. "West Pico" 12
SECTION 30
\(\qquad\) , T. 1 S . , R. 14 W. S.B.B. \& M.

FIELD Beverly Hills
COUNTY Los Angeles
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{DATE} & \multicolumn{2}{|l|}{DEPTH} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { WEIGHT } \\
\text { LBS./CU. FT. }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \hline \text { VISCOSITY } \\
& \text { SECONDS } \\
& \hline
\end{aligned}
\]} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { WATER LOSS } \\
& \text { CC } / 30 \text { MINUTES }
\end{aligned}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\hline \text { SAND } \\
\% \\
\hline
\end{gathered}
\]} & \multirow[b]{2}{*}{pH} & \multirow[b]{2}{*}{\[
\begin{gathered}
\text { SALINITY } \\
\text { G/G } \\
\hline
\end{gathered}
\]} & \multirow[b]{2}{*}{FILTER CAKE INCHES/32} & \multirow[t]{2}{*}{\[
\begin{gathered}
\text { OIL } \\
\% \\
\hline
\end{gathered}
\]} \\
\hline & FROM & T0 & LOW & HIGH & LOW & HIGH & LOW & HIGH & LOW & HIGH & & & & \\
\hline 5-23-67 & 0 & 616 & -- & 72 & 38 & 40 & -- & -- & -- & -- & -- & -- & -- & -- \\
\hline 5-24-67 & 616 & 1224 & 72 & 74 & 40 & 45 & -- & -- & -- & -- & -- & -- & -- & -- \\
\hline 5-25-67 & -- & 1224 & -- & 74 & -- & 45 & -- & -- & -- & -- & -- & -- & -- & 0 \\
\hline 5-26-67 & 1224 & 1512 & -- & 74 & -- & 50 & -- & 10.2 & -- & 1.5 & 11.5 & 94 & 2 & Trace \\
\hline 5-27-67 & 1512 & 2515 & 73 & 74 & 48 & 50 & -- & 9.0 & -- & 2.0 & 9.0 & 98 & 2 & 4.5 \\
\hline 5-28-67 & 2515 & 3704 & 74 & 75 & 44 & 50 & -- & 9.0 & -- & 2.0 & 9.1 & 98 & 2 & 4.0 \\
\hline 5-29-67 & 3704 & 4115 & 74 & 76 & 38 & 50 & -- & 8.0 & -- & 1.25 & 9.0 & 96 & 2 & 4.0 \\
\hline 5-30-67 & 4115 & 4352 & -- & 76 & -- & 45 & -- & 6.6 & -- & 1.25 & 8.8 & 90 & 2 & 4.0 \\
\hline 5-31-67 & 4352 & 4905 & 75 & 79 & 39 & 45 & -- & 6.6 & -- & 1.25 & 8.6 & 80 & 2 & 4.5 \\
\hline 6-1-67 & 4905 & 5418 & 78 & 80 & 40 & 45 & 6.4 & 6.6 & 1.0 & 1.25 & 8.6 & 80 & 2 & 4.5 \\
\hline 6-2-67 & -- & 5418 & Fishing. & & & & & & & & & & & \\
\hline 6-3-67 & -- & 5418 & Fishing. & & & & & & & & & & & \\
\hline 6-4-67 & 5418 & 5462 & 78 & 78.5 & 45 & 48 & -- & 5.4 & -- & . 50 & 8.8 & 88 & 2 & 9.0 \\
\hline 6-5-67 & 5462 & 5979 & 78 & 78.5 & 42 & 45 & -- & 5.4 & -- & . 50 & 9.0 & 90 & 2 & 7.5 \\
\hline 6-6-67 & 5979 & 6268 & 75.5 & 78 & 41 & 48 & -- & 5.4 & -- & . 50 & 8.5 & 71 & 2 & 6.0 \\
\hline 6-7-67 & 6268 & 6348 & -- & 76 & -- & 40 & -- & 5.4 & -- & . 50 & 8.8 & 70 & 2 & 5.0 \\
\hline 6-8-67 & 6348 & 6738 & 75.5 & 77 & 40 & 41 & 5.4 & 6.4 & Trace & . 50 & 9.0 & 80 & 2 & 60 \\
\hline 6-9-67 & 6738 & 7012 & 75 & 76 & 42 & 48 & 5.2 & 5.4 & Trace & . 50 & 9.0 & 70 & 2 & 0 \\
\hline 6-10-67 & 7012 & 7290 & -- & 75 & 45 & 48 & 5.2 & 6.0 & Trace & . 75 & 9.0 & 70 & 2 & 4.0 \\
\hline 6-11-67 & -- & 7290 & Fishing. & & & & & & & & & & & \\
\hline 6-12-67 & -- & 7290 & -- & 74 & -- & 45 & -- & 5.7 & -- & 1.00 & 8.5 & 70 & 2 & 11.0 \\
\hline 6-13-67 & -- & 7290 & -- & 76 & -- & 49 & -- & 7.0 & -- & 1.00 & 9.0 & 70 & 2 & 5.0 \\
\hline 6-14-67 & 7290 & 7526 & 75 & 76 & 45 & 49 & -- & 5.8 & -- & . 75 & 8.5 & 50 & 2 & 5.0 \\
\hline 6-15-67 & -- & 7526 & -- & 76 & -- & 50 & -- & 5.5 & -- & 1.00 & 9.0 & 55 & 2 & 5.0 \\
\hline 6-16-67 & -- & 7526 & -- & 76 & -- & 50 & -- & -- & -- & -- & -- & -- & -- & -- \\
\hline 6-17-67 & -- & 7526 & -- & 75 & . & 48 & -- & 5.7 & -- & . 75 & 8.5 & 55 & 2 & 5.0 \\
\hline 6-18-67 & -- & 7526 & Made \(W\) & V.S.O. & & & & & & & & & & \\
\hline 6-19-67 & 7526* & 7630 & - & 76 & -- & 60 & -- & 4.0 & -- & 1.00 & - & -- & 2 & 73.5 \\
\hline *Displaced & CQ Akto & flo-S (I) & gnosulfona & ate) drill & ng mud w & ith Baroi & Invermyl & inverted & oil emuls & sion mud. & & & & \\
\hline
\end{tabular}
well No. "West Pico" 12


Well No. \(\qquad\) "West Pico" 12

Section 30 , T. 1 S., R. 14 W. S.B.B.\&M.

Field \(\qquad\)
County \(\qquad\)


\title{
REPORT \\ and.
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mexteroo, culronans

\section*{SUBSURFACE} SURVEY

Pacific Coast Energy Company L.P.

\section*{WEST PICO-12}

\section*{WEST L.A.}

JOB NO. \& 100
DATE 7-6-67
DIRECTIONAL DRILLING, INC.
BAKERSFIELD
Phone: 324-3574

SHEET NO.
company Occidental Petroleum Corp. ADDRESS
(037-20146)
FIELD West L.A. COUNTY
state Calif.
well West Pico \#12


\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{\begin{tabular}{c}
\(\substack{\text { Men Aumet } \\
\text { DemtM }}\) \\
\hline 101
\end{tabular}} & \multirow[t]{3}{*}{} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{ogviation ANGU:}} & \multicolumn{4}{|l|}{vertical depth} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{counor}} & \multicolumn{3}{|l|}{\multirow[t]{2}{*}{\[
\begin{aligned}
& \text { DIRECTION } \\
& \text { OEVIATION }
\end{aligned}
\]}} & \multicolumn{8}{|c|}{\multirow[t]{2}{*}{COURSE orpartuam}} & \multicolumn{4}{|c|}{latituor} & \multicolumn{4}{|c|}{departure} \\
\hline & & & & \multicolumn{2}{|l|}{COUREE} & \multicolumn{2}{|l|}{tora-} & & & & & & \multicolumn{2}{|l|}{} & & & & & & enet otarture weet & \multicolumn{4}{|l|}{nouth south} & \multicolumn{2}{|l|}{nor} & \multicolumn{2}{|l|}{} \\
\hline & & \multicolumn{2}{|l|}{015} & 101 & 00. & 101 & 00 & 0 & 44 & S & 27 & W & & & 0 & 39 & & & 0 & 20 & & & 0 & 39 & & & 0 & 20 \\
\hline 194 & 93 & 0 & 15 & 93 & 00 & 194 & 00 & 0 & 41 & N & 78 & W & 0 & 09 & & & & & 0 & 40 & & & 0 & 30 & & & 0 & 60 \\
\hline 288 & 94 & 0 & 30 & 94 & 00 & 288 & 00 & 0 & 82 & N & 51 & W & 0 & 52 & & & & & 0 & 64 & 0 & 22 & & & & & 1 & 24 \\
\hline 383 & 95 & 0 & 30 & 95 & 00 & 383 & 00 & 0 & 83 & N & 60 & W & 0 & 42 & & & & & 0 & 72 & 0 & 64 & & & & & 1 & 96 \\
\hline 476 & 93 & 0 & 30 & 93 & 00 & 476 & 00 & 0 & 81 & N & 74 & W & 0 & 22 & & & & & 0 & 78 & 0 & 86 & & & & & 2 & 74 \\
\hline 570 & 94 & 0. & 30 & 94 & 00 & 570 & 00 & 0 & 82 & N & 46 & W & 0 & 57 & & & & & 0 & 59 & 1 & 43 & & & & & 3 & 33 \\
\hline 664 & 94 & 0 & 30 & 94 & 00 & 664 & 00 & 0 & 82 & N & 16 & W & 0 & 79 & & & & & 0 & 23 & 2 & 22 & & & & & 3 & 56 \\
\hline 790 & 126 & & -- & 126 & 00 & 790 & 00 & & & & -- & & & & & & & & & & & 22 & & & & & 3 & 56 \\
\hline 817 & 27 & 1 & 15 & 26 & 99 & 816 & 99 & 0 & 59 & N & 56 & E & 0 & 33 & & & 0 & 49 & & & 2 & 55 & & & & & 3 & 07 \\
\hline 880 & 63 & 3 & 15 & 62 & 90 & 879 & 89 & 3 & 57 & N & 57 & E & 1 & 94 & & & 2 & 99 & & & 4 & 49 & & & & & 0 & 08 \\
\hline 911 & 31 & 4 & 15 & 30 & 91 & 910 & 80 & 2 & 30 & N & 57 & E & 1 & 25 & & & 1 & 93 & & & 5 & 74 & & & 1 & 85 & & \\
\hline 943 & 32 & 5 & 45 & 31 & 84 & 942 & 64 & 3 & 21 & N & 62 & E & 1 & 51 & & & 2 & 83 & & & 7 & 25 & & & 4 & 68 & & \\
\hline 974 & 31 & 7 & 00 & 30 & 77 & 973 & 41 & 3 & 78 & N & 60 & E & 1 & 89 & & & 3 & 27 & & & 9 & 14 & & & 7 & 95 & & \\
\hline 1006 & 32 & 8 & 45 & 31 & 63 & 1005 & 04 & 4 & 87 & N & 60 & E & 2 & 44 & & & 4 & 22 & & & 11 & 58 & & & 12 & 17 & & \\
\hline 1037 & 31 & 10 & 00 & 30 & 53 & 1035 & 57 & 5 & 38 & N & 67 & E & 2 & 10 & & & 4 & 95 & & & 13 & 68 & & & 17 & 12 & & \\
\hline 1098 & 61 & 12 & 30 & 59 & 55 & 1095 & 12 & 13 & 20 & N & 77 & E & 2 & 97 & & & 12 & 86 & & & 16 & 65 & & & 29 & 98 & & \\
\hline 1224 & 126 & 15 & 00 & 121 & 70 & 1216 & 82 & 32 & 61 & N & 82 & E & 4 & 54 & & & 32 & 29 & & & 21 & 19 & & & 62 & 27 & & \\
\hline 1311 & 87 & 17 & 15 & 83 & 09 & 1299 & 91 & 25 & 80 & N & 80 & E & 4 & 48 & & & 25 & 41 & & & 25 & 67 & & & 87 & 68 & & \\
\hline 1406 & 95 & 20 & 30 & 88 & 98 & 1388 & 89 & 33 & 27 & N & 76 & E & 8 & 05 & & & 32 & 28 & & & 33 & 72 & & & 119 & 96 & & \\
\hline
\end{tabular}

\footnotetext{
TYPE OF SURVEY:
}

SHEET NO \(2 \rightarrow\).

JOB NO

ADDRESS
COUNTY

Calif.
STATE

 \begin{tabular}{l|l|l|l|l|l|l|l|l|l|ll|lll|}
1500 & 94 & 22 & 30 & 86 & 84 & 1475 & 73 & 35 & 97 & \(N\) & 75 & \(E\) & 9 & 31 \\
\hline
\end{tabular}


\begin{tabular}{l|l|lllll|l|l|l|l|ll}
1974 & 94 & 38 & 00 & 74 & 07 & 1878 & 96 & 57 & 87 & N & 78 \\
\hline & & & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{c|c|c|}
\hline\(E\) & 9 & 35 \\
\(E\) & 10 & 14 \\
\(E\) & 11 & 19 \\
\hline & 12 & 03
\end{tabular}
\begin{tabular}{|c|c|cc|c|c|c|c|c|c|cc|}
\hline 2073 & 99 & 41 & 30 & 74 & 15 & 1953 & 11 & 65 & 60 & \(N\) & 79 \\
\hline 2170 & 97 & 44 & 30 & 69 & 19 & 2022 & 30 & 67 & 99 & \(N\) & 79 \\
\hline 2232 & 62 & 46 & 00 & 43 & 07 & 2065 & 37 & 44 & 60 & \(N\) & 76 \\
\hline 2326 & 94 & 49 & 15 & 61 & 36 & 2126 & 73 & 71 & 21 & \(N\) & 78 \\
\hline 2386 & 60 & 51 & 15 & 37 & 56 & 2164 & 29 & 46 & 79 & \(N\) & 78 \\
\hline 2512 & 126 & 51 & 15 & 78 & 86 & 2243 & 15 & 98 & 27 & \(N\) & 78 \\
\hline
\end{tabular}
\begin{tabular}{c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 2669 & 157 & 51 & 15 & 98 & 27 & 2341 & 42 & 122 & 44 & 78 \\
\hline 2827 & 158 & 51 & 15 & 98 & 89 & 2440 & 31 & 123 & 22 & 7 & 78 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 2984 & 57 & 51 & 45 & 97 & 20 & 2537 & 51 & 123 & 29 & \(N\) & 78 \\
\hline 3075 & 91 & 51 & 45 & 56 & 34 & 2593 & 85 & 71 & 46 & \(N\) & 79 \\
\hline 3232 & 157 & 51 & 45 & 97 & 20 & 2691 & 05 & 123 & 29 & \(N\) & 79 \\
\hline 3391 & 159 & 51 & 45 & 98 & 44 & 2789 & 49 & 124 & 86 & \(N\) & 80 \\
\hline 3548 & 157 & 51 & 45 & 97 & 20 & 2886 & 69 & 123 & 29 & \(N\) & 80 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline\(E\) & 12 & 52 \\
\hline\(E\) & 12 & 97 \\
\hline\(E\) & 10 & 79 \\
\hline\(E\) & 14 & 80 \\
\hline\(E\) & 9 & 73 \\
\hline\(E\) & 20 & 43 \\
\hline\(E\) & 25 & 46 \\
\hline\(E\) & 25 & 62 \\
\hline\(E\) & 25 & 63 \\
\hline\(E\) & 13 & 63 \\
\hline\(E\) & 23 & 52 \\
\hline\(E\) & 21 & 68 \\
\hline\(E\) & 21 & 40 \\
\hline
\end{tabular} - Latituor
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{ óparture } \\
\hline 154 & 70 & & \\
\hline 194 & 43 & & \\
\hline 238 & 42 & & \\
\hline 286 & 11 & & \\
\hline 338 & 74 & & \\
\hline 395 & 34 & & \\
\hline 459 & 73 & & \\
\hline 526 & 47 & & \\
\hline 569 & 75 & & \\
\hline 639 & 40 & & \\
\hline 685 & 17 & & \\
\hline 781 & 29 & & \\
\hline 901 & 05 & & \\
\hline 1021 & 57 & & \\
\hline 1142 & 16 & & \\
\hline 1212 & 31 & & \\
\hline 1333 & 33 & & \\
\hline 1456 & 29 & & \\
\hline 1577 & 71 & & \\
\hline
\end{tabular}

\footnotetext{
TVPE OF BURVEY.
}
directional driling, inc.

\section*{SURYEY DAYA SHEET}
company Occidental Petroleum Corp. ADDRESS

WELL
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{ DRPTM} & \multirow[t]{2}{*}{} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{DEVIATION ANGIS:}} & \multicolumn{4}{|l|}{\multirow[t]{2}{*}{VERTICAL DEPTH}} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\[
\begin{aligned}
& \text { COUMBe } \\
& \text { OEVIATIOR }
\end{aligned}
\]}} & \multicolumn{3}{|l|}{\multirow[t]{2}{*}{oirection oeviation}} & \multicolumn{3}{|r|}{\multirow[t]{2}{*}{}} & \multicolumn{3}{|l|}{\multirow[t]{2}{*}{DEPARTURE}} & \multicolumn{7}{|c|}{TOT} \\
\hline & & & & & & & & & & & & & & & & & & & & +n & coum & 49 & & Tune & \\
\hline 3704 & 156 & 51 & 45 & 96 & 58 & 2983 & 27 & 122 & 50 & N & 80 & E & 21 & 27 & & 120 & 64 & & 355 & 10 & & 1698 & 35 & & \\
\hline 3755 & 51 & 50 & 45 & 32 & 27 & 3015 & 54 & 39 & 49 & N & 78 & E & 8 & 21 & & 38 & 63 & & 363 & 31 & & 1736 & 98 & & \\
\hline 3799 & 44 & 48 & 00 & 29 & 44 & 3044 & 98 & 32 & 70 & N & 74 & E & 9. & 01 & & 31 & 43 & & 372 & 32 & & 1768 & 41 & & \\
\hline 3895 & 96 & 51 & 15 & 60 & 09 & 3105 & 07 & 74 & 87 & N & 68 & E & 28 & 05 & & 69 & 42 & & 400 & 37 & & 1837 & 83 & & \\
\hline 3990 & 95 & 51 & 45 & 58 & 81 & 3163 & 88 & 74 & 61 & N & 68 & E & 27 & 95 & & 69 & 18 & & 428 & 32 & & 1907 & 01 & & \\
\hline 4115 & 125 & 55 & 00 & 71 & 70 & 3235 & 58 & 102 & 40 & N & 68 & E & 38 & 36 & & 94 & 95 & & 466 & 68 & & 2001 & 96 & & \\
\hline 4247 & 132 & 54 & 00 & 77 & 59 & 3313 & 17 & 106 & 79 & N & 68 & E & 40 & 00 & & 99 & 02 & & 506 & 68 & & 2100 & 98 & & \\
\hline 4341 & 94 & 53 & 30 & 55 & 91 & 3369 & 08 & 75 & 56. & N & 68 & E & 28 & 30 & & 70 & 06 & & 534 & 98 & & 2171 & 04 & & \\
\hline 4436 & 95 & 53 & 00 & 57 & 17 & 3426 & 25 & 75 & 87 & N & 68 & E & 28 & 42 & & 70 & 35 & & 563 & 40 & & 2241 & 39 & & \\
\hline 4531 & 95 & 52 & 15 & 58 & 16 & 3484 & 41 & 75 & 12 & N & 68 & E & 28 & 14. & & 69 & 65 & & 591 & 54 & & 2311 & 04 & & \\
\hline 4622 & 91 & 51 & 30 & 56 & 65 & 3541 & 06 & 71 & 22 & N & 68 & E & 26 & 68 & & 66 & 04 & & 618 & 22 & & 2377 & 08 & & \\
\hline 4717 & 95 & 50 & 30 & 60 & 43 & 3601 & 49 & 73 & 30 & N & 69 & E & 26 & 27 & & 68 & 43 & & 644 & 49 & & 2445 & 51 & & \\
\hline 4822 & 105 & 48 & 00 & 70 & 26 & 3671 & 75 & 78 & 03 & N & 69 & E & 27 & 97 & & 72 & 85 & & 672 & 46 & & 2518 & 36 & & \\
\hline 4917 & 95 & 46 & 00 & 65 & 99 & 3737 & 74 & 68 & 34 & N & 70 & E & 23 & 37 & & 64 & 22 & & 695 & 83 & & 2582 & 58 & & \\
\hline 5010 & 93 & 45 & 00 & 65 & 76 & 3803 & 50 & 65 & 76 & N & 70 & E & 22 & 49 & & 61 & 79 & & 718 & 32 & & 2644 & 37 & & \\
\hline 5103 & 93 & 43 & 30 & 65 & 46 & 3870 & 96 & 64 & 02 & N & 71 & E & 20 & 84 & & 60 & 53 & & 739 & 16 & & 2704 & 90 & & \\
\hline 5201 & 98 & 42 & 45 & 71 & 96 & 3942 & 92 & 66 & 52 & N & 72 & E & 20 & 55 & & 63 & 27 & & 759 & 71 & & 2768 & 17 & & \\
\hline 5297 & 96 & 41 & 00 & 72 & 45 & 4015 & 37 & 62 & 98 & N & 72 & E & & 46 & & 59 & 90 & & 779 & 17 & & 2828 & 07 & & \\
\hline 5391 & 94 & 39 & 00 & 73 & 05 & 4088 & 42 & & 16 & N & 72 & E & 18 & 28 & & 56 & 27 & & 797 & 45 & & 2884 & 34 & & \\
\hline
\end{tabular}

SHEET NO \(2 \rightarrow\).

JOB NO

ADDRESS
COUNTY

Calif.
STATE

 \begin{tabular}{l|l|l|l|l|l|l|l|l|l|ll|lll|}
1500 & 94 & 22 & 30 & 86 & 84 & 1475 & 73 & 35 & 97 & \(N\) & 75 & \(E\) & 9 & 31 \\
\hline
\end{tabular}


\begin{tabular}{l|l|lllll|l|l|l|l|ll}
1974 & 94 & 38 & 00 & 74 & 07 & 1878 & 96 & 57 & 87 & N & 78 \\
\hline & & & & & & & & & & & \\
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\end{tabular}
\begin{tabular}{c|c|c|}
\hline\(E\) & 9 & 35 \\
\(E\) & 10 & 14 \\
\(E\) & 11 & 19 \\
\hline & 12 & 03
\end{tabular}
\begin{tabular}{|c|c|cc|c|c|c|c|c|c|cc|}
\hline 2073 & 99 & 41 & 30 & 74 & 15 & 1953 & 11 & 65 & 60 & \(N\) & 79 \\
\hline 2170 & 97 & 44 & 30 & 69 & 19 & 2022 & 30 & 67 & 99 & \(N\) & 79 \\
\hline 2232 & 62 & 46 & 00 & 43 & 07 & 2065 & 37 & 44 & 60 & \(N\) & 76 \\
\hline 2326 & 94 & 49 & 15 & 61 & 36 & 2126 & 73 & 71 & 21 & \(N\) & 78 \\
\hline 2386 & 60 & 51 & 15 & 37 & 56 & 2164 & 29 & 46 & 79 & \(N\) & 78 \\
\hline 2512 & 126 & 51 & 15 & 78 & 86 & 2243 & 15 & 98 & 27 & \(N\) & 78 \\
\hline
\end{tabular}
\begin{tabular}{c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 2669 & 157 & 51 & 15 & 98 & 27 & 2341 & 42 & 122 & 44 & 78 \\
\hline 2827 & 158 & 51 & 15 & 98 & 89 & 2440 & 31 & 123 & 22 & 7 & 78 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 2984 & 57 & 51 & 45 & 97 & 20 & 2537 & 51 & 123 & 29 & \(N\) & 78 \\
\hline 3075 & 91 & 51 & 45 & 56 & 34 & 2593 & 85 & 71 & 46 & \(N\) & 79 \\
\hline 3232 & 157 & 51 & 45 & 97 & 20 & 2691 & 05 & 123 & 29 & \(N\) & 79 \\
\hline 3391 & 159 & 51 & 45 & 98 & 44 & 2789 & 49 & 124 & 86 & \(N\) & 80 \\
\hline 3548 & 157 & 51 & 45 & 97 & 20 & 2886 & 69 & 123 & 29 & \(N\) & 80 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline\(E\) & 12 & 52 \\
\hline\(E\) & 12 & 97 \\
\hline\(E\) & 10 & 79 \\
\hline\(E\) & 14 & 80 \\
\hline\(E\) & 9 & 73 \\
\hline\(E\) & 20 & 43 \\
\hline\(E\) & 25 & 46 \\
\hline\(E\) & 25 & 62 \\
\hline\(E\) & 25 & 63 \\
\hline\(E\) & 13 & 63 \\
\hline\(E\) & 23 & 52 \\
\hline\(E\) & 21 & 68 \\
\hline\(E\) & 21 & 40 \\
\hline
\end{tabular} - Latituor
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{ óparture } \\
\hline 154 & 70 & & \\
\hline 194 & 43 & & \\
\hline 238 & 42 & & \\
\hline 286 & 11 & & \\
\hline 338 & 74 & & \\
\hline 395 & 34 & & \\
\hline 459 & 73 & & \\
\hline 526 & 47 & & \\
\hline 569 & 75 & & \\
\hline 639 & 40 & & \\
\hline 685 & 17 & & \\
\hline 781 & 29 & & \\
\hline 901 & 05 & & \\
\hline 1021 & 57 & & \\
\hline 1142 & 16 & & \\
\hline 1212 & 31 & & \\
\hline 1333 & 33 & & \\
\hline 1456 & 29 & & \\
\hline 1577 & 71 & & \\
\hline
\end{tabular}

\footnotetext{
TVPE OF BURVEY.
}

\section*{DIRECTIONAL DRILLING, INC.}
well West Pico \#l2 field West L. A. \(\qquad\) COUNTY STATE Calif \(\qquad\) \(-\quad\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline  DegTh & \[
\begin{aligned}
& \text { Couray } \\
& \text { LINGTM }
\end{aligned}
\] & \multicolumn{2}{|l|}{OFVIATION ANGLS} & \multicolumn{4}{|c|}{VERTICAL DEPTH OUREE TOTAL} & \multicolumn{2}{|l|}{} & \multicolumn{3}{|l|}{\[
\begin{aligned}
& \text { OIRECTION } \\
& \text { OEVIATION }
\end{aligned}
\]} \\
\hline 7329 & 102 & 4 & 30 & 101 & 68 & 5922 & 59 & 8 & 01 & & EAST & \\
\hline 7526 & 197 & 3 & 30 & 196 & 63 & 6119 & 22 & 12 & 02 & S & 81 & E \\
\hline 7621 & 95 & 3 & 15 & 94 & 85 & 6214 & 07 & 5 & 39 & S & 67 & E \\
\hline 7740 & 119 & 2 & 15 & 118 & 90 & 6332 & 97 & 4 & 68 & S & 66 & E \\
\hline 7880 & 140 & 2 & 45 & 139 & 83. & 6472 & 80 & 6 & 72 & S & 41 & E \\
\hline 8029 & 149 & 2 & 30 & 148 & 85 & 6621 & 65 & 6 & 50 & S & 52 & E \\
\hline 8200 & 171 & 2 & 15 & 170 & 86 & 6792 & 51 & 6 & 72 & S & 08 & E \\
\hline Clos & re: & & & 35 & 47. & 5' & & N & 759 & & 13'E & \\
\hline
\end{tabular} OURSE \(\qquad\)
\begin{tabular}{rr|r|r|r|r|r|r|r|r|}
\hline & & 8 & 01 & & 926 & 98 & & \\
\hline 1 & 88 & 11 & 87 & & 9 & 5 & 925 & 10 & \\
\hline 2 & 11 & 4 & 96 & & & 922 & 99 & & \\
\hline 1 & 90 & 4 & 28 & & 921 & 09 & & \\
\hline 5 & 07 & 4 & 41 & & & 916 & 02 & & \\
\hline 4 & 00 & 5 & 12 & & 912 & 02 & & \\
\hline 6 & 65 & 0 & 94 & & & 905 & 37 & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}

\begin{tabular}{|l|l|l|l|}
\hline 3398 & 06 & 349 & \\
\hline 3409 & 93 & & \\
\hline 3414 & 89 & & \\
\hline 3419 & 17 & & \\
\hline 3423 & 58 & & \\
\hline 3428 & 70 & 3429 \\
\hline 3429 & 64 & & \\
\hline
\end{tabular}
\[
\begin{array}{|||||l|l||l|l||l||l||l|l||}
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline
\end{array}
\]

\section*{DIVISION OF OIL AND GAS}

\section*{Report on Test of Water Shut-off}
(Formation tester)
No. T 167-549
SEC. 3606 WELL

Mr. Eugene F. Reid 5000 Stockdale Highway Bakersfield, California
Agent for OCCIDENTAL PETROLEUM CORP.

Inglewood,
Calif.
June 21, 1967

\section*{Dear Sir: (037-20146)}

Your well No. "West Pico" \(12 \quad\) Sec. 30, T. 1 S. R. 14 W, S.B. B \& M. Beverly Hills \(\quad\) Field, in Los Angeles County, was tested for water shut-off on June 19, 1967 Mr. R. Rothermel, Engineer , designated by the supervisor was present from 3:00 a.m. to 4:00 a.m. as prescribed by law; there were also present.J. Weaver, Drilling Foreman


Casing record of well: \(20^{\prime \prime}\) cem. \(40^{\prime} ; 13-3 / 8^{\prime \prime}\) cem. \(1226^{\prime} ; 8-5 / 8^{\prime \prime}\) cem. \(7512^{\prime}\), perf. \(7394^{\prime}\) WSO 1224
 A Halliburton tester was run into the hole on \(4 \quad\) in. drill pipe waserx with .-. ft. of water-mud cushion, and packer - Set at \(7364 \quad \mathrm{ft}\). with tailpiece to 7381 ft . Tester valve, with \(3 / 4 \quad\) in. bean, was open for \(1 \quad \mathrm{hr}\). and \(\quad-\quad .-\quad\) min. During this interval there was a light blow for 3 minutes \& no blow thereafter.

Mr. Weaver reported:
1. A \(12-1 / 4^{\prime \prime}\) hole was drilled from \(1224^{\prime}\) to \(7526^{\prime}\).
2. The \(8-5 / 8^{\prime \prime}\) casing was cemented as noted above.
3. The \(\mathbf{8 - 5} / 8^{\prime \prime}\) casing was jet-perforated with four, \(\mathbf{1 / 2}\) ' holes at 7394'.

THE ENGINEER NOTED:
1. When the drill pipe was removed, \(80^{\prime}\) of drilling fluid was found above the tester.
2. The pressure charts indicated the tester tool functioned properly.

THE 8-5/8' SHUT-OFF AT 7394' IS APPROVED.

RR:nw
ce Company


\section*{DIVISION OF OIL AND GAS}

\section*{Special Report on Operations Witnessed}

SEC. 3606 WELL
No. T 167-505
Mr. Eugene F. Reid
5000 Stackdale Highway
Inglewood, \(\qquad\) Calif.
Bakersfield, California
June 9, 1967
Agent for-- OCCIDENIAT. PETROLETM CORP.
Dear Sir:
(037-20146)
Operations at well No. "West Picot 12 Sec. \(30, \mathrm{~T} .1 \mathrm{~S}, \mathrm{R} .14 \mathrm{~W}, \mathrm{~S} . \mathrm{B} . \mathrm{B} \& \mathrm{M}\). Beverly Hills Field, in Los Angeles Los Angeles on May 29,1967 County, were witnessed from \(2: 00\). Mr. \(\quad\). from 2:00 p.m. to \(2: 30\) p.m.. There were also present L. Conell, Drilling Foreman

Present condition of well: \(20^{\prime \prime}\) em. \(40^{\prime} ; 13-3 / 8^{\prime \prime}\) em. \(1226^{\circ}\). TD \(3800^{\circ}\) drilling

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

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

\section*{RR: nw}
ce Company
E. R. MURRAY-AARON

State Oil and Gas Supervisor


\author{
SEC. 3606 WELL
}

Mr. Eugene F. Reid 5000 stockdale \(H\), ghway Bakersfield, Calffornia
Agent for OCCIDENTAL PETROLEUM CORP.

Inglewood, \(\qquad\) Calif. May 22, 1967

Dear Sir:
Your. Section 30 , T. 1 S , R. 14 W. S.B. B. \& M., Beverly Hills dated May 16, 1967, received May 18, 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:

\section*{THE NOTICE STATES}
"Legal description of mineral-right lease, consisting of 1.1 acres, is as follows: Tract 6380, Lots 884, 885, 886 and 887 as recorded in Book of Maps, Book 69, Pages 11 through 20, on file in the Office of the Recorder, Los Angeles County; as per attached plat.
Do mineral and surface leases coincide? Yes X No
Location of Well: From the intersection of the center lines of Pico Boulevard and Oakhurst, \(106^{\prime}\) North along the center line of Oakhurst, thence \(81^{\prime \prime}\) East at \(90^{\circ}\) angle.
Elevation of ground above sea level 171 feet datum.
All depth measurements taken from top of Kelly Bushing which is 12.5 feet above ground."

\section*{PROPOSAL}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{"PROPOSED CASING PROGRAM} & \(\overline{\mathrm{K} . \mathrm{B}^{\prime}=183.5 \text { feet }}\) \\
\hline Size of Casing & Weight & ade and Type & Top & Bottom & Cementing Depths \\
\hline \(20^{\prime \prime}\) & & onductor & Surface & \(40^{\prime}\) & Cement to surface. \\
\hline 13-3/8 \({ }^{\prime \prime}\) & 48\# & \(\mathrm{H}-40, \mathrm{Smls}\). & Surface & \(1200^{\prime}\) & Cement to surface \\
\hline 8-5/8" & Veight & de and dep th & determi & ned) & \\
\hline 6-5/8 \({ }^{\text {" }}\) & 24\# & de and depths & e deter & ned) & \\
\hline - & & Miocene 7550 & to 82 & & \\
\hline
\end{tabular}

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

\section*{DECIS ION}

THE PROPOSAL IS APPROVED PROVIDED:
1. Fluid consistent with good drilling practice shall be used, and the columa 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. The provisions of Sec. 3606 relating to derricks and subsurface spacing shall be followed.
4. A directional survey shall be made and filed with this Division.
5. THIS DIVISION SHALL BE NOTIFIED:
a. To inspect the installed blowout prevention equipment before drilling below 2000'.
b. To witness a test of the effectiveness of the \(8-5 / 8^{\prime \prime}\) shut-off.

\section*{WLI: nw}
ec Company


\title{
DIVISION OF OIL AND GASMAY 181967 SEC 3606 WELL
} Notice of Intention to Drill New Well \({ }^{\text {B1anke }}{ }^{\text {B }}{ }^{\text {Bnd }}{ }^{2} \mathrm{NO}_{4}^{\mathrm{No}} 6^{\mathrm{SY}-292007}\)
This notice and surety bond must be filed before drilling begins \(\underset{\text { IMLEweod, OMIFORNL }}{ }\)
Bakersfield
Calif.
May 16, 1967

\section*{DIVISION OF OIL AND GAS}

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our (037-20146) intention to commence drilling well No..-"West Pico" 12
R. 14 W. , S.B.
B. \& M.,
Beverly Hills \(\qquad\) Field, \(\qquad\) Los Angeles County. Legal description of mineral-right lease, consisting of \(1.1 \quad\) acres, is as follows: Tract 6380 , Lots 884 , 885,886 and 887 as recorded in Book of Maps, Book 69, Pages 11 through 20, on file in the Office of the Recorder, Los Angeles County; as per attached plat.

Do mineral and surface leases coincide? Yes X No \(\qquad\) If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.
\(\qquad\) feet \(\qquad\) property
along section line and \(\qquad\) feet -(Direction)
at right angles to said line from the \(\qquad\) corner of section
From the intersection of the center lines of Pico Boulevard and Oakhurst, 106' North along the center line of Oakhurst, thence \(81^{\prime}\) East at \(90^{\circ}\) ang1e. Or Approx \(3206^{\prime} \mathrm{N}\), 1632 F Elevation of ground above sea level \(\qquad\) 171 \(\qquad\) feet fro SW Cor of Sec. All depth measurements taken from top of \(\square\) Ke11y Bushing
(Derrick Floor, Rotary Table or Kelly Bushing) datum.
which is
12.5 feet above ground.

\section*{PROPOSED CASING PROGRAM}
\[
\text { K.B. }=183.5 \text { feet }
\]
\begin{tabular}{l|c|c|c|c|c}
\hline \hline \begin{tabular}{c} 
SIZE OF CASING \\
INCHESA.P.I.
\end{tabular} & WEIGHT & GRADE AND TYPE & TOP & BOTTOM & CEMENTING DEPTHs \\
\hline \(20^{\prime \prime}\) & -- & Conductor & Surface & \(40^{\prime}\) & Cement to surface. \\
\hline \(13-3 / 8^{\prime \prime}\) & 48 非 & H-40, Sm1s. & Surface & \(1200^{\prime}\) & Cement to surface. \\
\hline \(8-5 / 8^{\prime \prime}\) \\
\(6-5 / 8^{\prime \prime}\) & \begin{tabular}{c} 
(Weight, grade and \\
24非 (Grade and depths to be depth to be determined) \\
(Grmined)
\end{tabular} & \\
\hline \hline
\end{tabular}

Intended zone(s) of completion: -------- Miocene

7550 feet to 8250 feet
Estimated total depth 8250 feet .
(Name)
(Depth, top and bottom)


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

Address
5000 Stockdale Highway
Bakersfield, California 93309

Telephone Number 327-7351

OCCIDENTAL PETROLEUM CORPORATION


Type of Organization
```


[^0]:    PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforations, and method.)
    60M,24R,2",6\#C slots 8461'-9232'
    4 hpf: 7512'-7590', 7630'-7692', 7726'-7746', 7788'-7798', 7806'-7820', 7826'-7860', 7866'-7876', 7884'-7916', 7925'-7960', 7980'-8110', 8120'-8140', 8154'-8164'. On 1/28/2014 jet perf'd 4 hpf: 6460'-6466', 6400'-6410', 6310'-6342' (Repetto)
    Logs/surveys run? $\square$ Yes $\square$ No If yes, list type(s) and depth(s).
    CCL, GR from 5000'-7400' to correlate for perforating
    Well Mechanical attached
    In compliance with Sec. 3215, Division 3, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

    | Name of person filing report Frank Smith | Telephone Number 805-937-3250 | Signature Frank w. Sonith | Date 9/9/2014 |
    | :---: | :---: | :---: | :---: |
    | Address 1555 Orcutt Hill Rd. |  | City/State Orcutt, CA | Zip Code 93455 |
    | Individual to contact for technical questions: Frank Smith | Telephone Number 805-937-3250 | E-Mail Address: frank.smith@breitburn.com |  |


    | API No. 040372014601 | KB $=12.5^{\prime}$ |
    | :--- | :--- |
    | Spud Date: $5 / 23 / 1967$ | Elevation $=171^{\prime}$ |
    | Redrill Date: $9 / 12 / 1968$ | TD $=9250^{\prime}$ |

    Current Condition
    12/27/2013
    Hydraulic Rod Pump HRPI Unit: Mod-11
    SPM $=1.7$

    HISTORY:
    5/23/1967: Original hole spudded
    6/30/1967: Drilling completed
    $T D=8200^{\prime}$
    Completed in "Main Zone" what we call "Hauser"
    IP after 30 -days $=1049$ bopd of 28.5API
    OH plugged back to $7513^{\prime}$
    9/12/1968: RD1 spud date, drilled from $7522^{\prime}$ to $9250^{\prime}$
    10/1968" Lot of work to get good cement job $7480^{\prime}$ to $8400^{\prime}$
    Completed as a gas-lift dual string producer
    Long string = Ogden
    Short string = Hauser
    Well history of wax \& difficulty pulling dual strings
    4/8/1969: No attempt to retrieve fish (Packer \& 20 jts of $23 / 8^{\prime \prime} \mathrm{tbg}$
    because of time spent on previous problems

    1/2014: Well produces via HRP (3 bopd + 195 bwpd)
    1/28/2014: Repetto perforated
    1/30/2014: Acid job done
    2/3/2014: Ran boronized tubing

    9/12/1968: RD1 spud date, drilled from $7522^{\prime}$ to $9250^{\prime}$
    OH plugged back to $7513^{\prime}$
    Cement drilled out from 7513' to 7522'

    10/8/1968: Sqzd away 73CF cmt TOC by CBL 7980'-8340' 5/19/1976: Latch-in seal assembly in Perma-trieve pkr @8161' 4/11/1969: OTIS Perma-trieve Packer @8161-8166' 4/12/1969" seal nipple in packer @8166
    4/8/1969 Junk: Damaged Baker Model "D" Packer @8171 run on wire line 3/6/1969
    20 jts(592') of 2 3/8" Tbg 4.6\# J-55 Security flush jt below Model "D" Pkr this tubing was the "Lower" completion interval of a dual completion

    Received -
    NATURAL RESOURCES AGENCY OF CALIFORNIA
    DEPARTMENT OF CONSERVATION
    DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

    ## HISTORY OF OIL OR GAS WELL

    | Operator | Pacific Coast Energy Company LP | Field | Beverly Hills (East) |  | County Santa Barbara |  |  |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | Well | West Pico 12 RD-1 |  | Sec. 30 | T. 01 S | R. 14 W | S.B. | B. \& M |
    | A.P.I. No. | 037-20146 | Name | Frank Smith | Title Agent |  |  |  |
    | Date 01/ | 014 |  | (Person submititing report) | (President. Secrelarv, or Agent) |  |  |  |
    | (Month, day, vear) |  |  | Signature Frank Smith for/Tom McCollum(Agent) |  |  | rank | Smu |

    Address $\qquad$ Telephone Number $\qquad$
    (805) 937-2576

    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.

    ## Pre-Work Condition:

    | KB: 12.5' - Elev: 171' - TD: 9,250' MD |  |  |
    | :---: | :---: | :---: |
    | 20" | Conductor | C. $65^{\prime} \mathrm{MD}$ <br> C. $1,224^{\prime}$ MD |
    | 13-3/8" 48\# | H-40 |  |
    | 8-5/8" 36\# | J-55 \& N-80 | C. $7,512^{\prime} \mathrm{MD}$ |
    | 6-5/8" 28\# | J-55 Liner | $\begin{aligned} & \text { H. } \forall 7,470^{\prime} \\ & \text { b/ } 9,232^{\prime} \mathrm{MD} \end{aligned}$ |
    | Perforations: 4 JHPF | 7,512' - 7,980' MD | Intervals |
    | Ineffective Perforations: | 7,980'-8,340' MD | Squeezed |
    | Otis Perma-Trieve Packer | 8,161' MD |  |
    | Fish: (Model "D" Packer) | 8,171' MD |  |
    | 20 Jnts, 2-3/8" Tbg | 8,640' - 9,232' MD |  |

    ## Post-Work Condition:

    | KB: 12.5' - Elev: 171' - TD: 9,250' MD |  |  |  |
    | :---: | :---: | :---: | :---: |
    | 20" |  | $\begin{aligned} & \text { Conductor } \\ & \text { H-40 } \end{aligned}$ | C. $65{ }^{\prime} \mathrm{MD}$ |
    | 13-3/8" | 48\# |  | C. 1,224 MD |
    | 8-5/8" | 36\# | J-55 \& N-80 | C. $7,512^{\prime} \mathrm{MD}$ |
    | Perforations: | 4 JHPF | $\begin{aligned} & 6,310^{\prime}-6,342 \prime, 6,40 \\ & 6,460^{\prime}-6,4666^{\prime} M D \end{aligned}$ |  |
    | 6-5/8" | 28\# | J -55 Liner | $\begin{aligned} & \text { H. } \ddagger 77,470^{\prime} \\ & \text { b/ } 9,232^{\prime} \text { MD } \end{aligned}$ |
    | Perforations: 4 JHPF |  | 7,512' - 7,980' MD | IntervalsSqueezed |
    | Ineffective P | erforations: | 7,980'-8,340' MD |  |
    | Otis Perma-Trieve Packer |  | 8,161' MD |  |
    | Fish: (Model "D" Packer) |  | 8,171' MD |  |
    | 20 Jnts, 2-3/8" Tbg |  | 8,640'-9,232' MD |  |


    | Date | HISTORY Add Perfs and Wash - NOTE: Use a KB of 12.5' with an elevation of 121' |
    | :---: | :---: |
    | 01/21/2014 | Moved rig from WP 21 to WP 12 RD-1. Spot in and R/u. Removed beams extension. Nipple up rod riser. Secure rig. |
    | 01/22/2014 | Bled off well. Pull rod string out of the hole. All rods look ok. R/d rod riser. N/u BOPE and function test to 1500 psi - OK. Notify DOGGR to witness test. DOGGR representative Nimal Diunugela waived the BOPE inspection - OK. Change crews. Serviced rig and equipment. Pulled casing shuck out of the hole. R/u hydro tester and tested all pipe to 5000 psi . Ld 6 joints of tubing - joints 56 through 62 due to excessive rod cut. Found a hole on joint \#69. Found fluid at joint \#74. The remaining tubing joints all tested OK to 5000 psi . Dropped a bar down the tubing to sheer the drain pin on the pump. R/d the hydro tester. Stood back 95 stands of tubing. L/d 7 joints of pipe. Closed BOPE. Secured the well and rig. |
    | 01/23/2014 | Bled off well. Continued pulling the pump out of the well. L/d and inspected the pump. P/u 8-5/8"csg scraper, bumper sub and a $4^{\prime}$ pup joint. RIH to the top of the liner at $7,470^{\prime}$ MD. Change crews. POOH w/ $8-5 / 8^{\prime \prime}$ scraper and bumper sub. The rig began to vibrate excessively. Notified the foreman. Called out the mechanic. Found a crack in the horse shoe. Continued POOH. L/d the 8-5/8"scraper and bumper sub. RIH 8 joint kill string. Secured well and rig. |
    | 01/24/2014 | Bled off well. POOH w/ kill string. Pumped injection water down the casing to run the bond $\log$. Install the flange for the lubricator on top of the hydrill. MIRU Baker Hughes wire line. Set up crane from AC pump and R/u sheave for the wire line. Made a feeler run. POOH. Ran a bond log down to $7,470^{\prime} \mathrm{MD}$ and logged $3000^{\prime}$ up (to $4,470^{\prime} \mathrm{MD}$ ). POOH . $\mathrm{R} / \mathrm{d}$ wire line and crane. $\mathrm{N} / \mathrm{d}$ lubricator flange. Change crews. Mechanic made small repairs on the rig. M/u 6-5/8" scraper and bumper sub. RIH w/tubing detail. Tag at $8,143^{\prime}$ MD. Packer noted at $8,161^{\prime}$ MD. Pull tubing up to 7,439 ' MD (liner top at $7,470^{\prime}$ MD). Secured well and rig. |
    |  | Note: Original DOGGR permit issued by John Huff on 01/02/2014 required squeeze holes in the $8-5 / 8^{\prime \prime}$ casing at 6,100 ' with cement top to be at 5,950' MD. <br> Following the cement bond log results on 01/24/2014, PCEC contacted Mr. Huff at the Cypress DOGGR office and after discussion, the decision was made that the cement squeeze was not necessary. Mr. Huff followed up with an email on 01/27/2014 reiterating his decision to waive the cement squeeze. |
    | 01/25/2014 | Bled off well. Continued to $\mathrm{POOH} w / 6-5 / 8^{\prime \prime}$ scraper. Ld scraper and bumper sub. Ran 10 stands of pipe in the well as a kill string. Secured well and rig. |
    | 01/27/2014 | Bled off well. Assisted the mechanic with changing out the drive line on the rig. Wait for instructions to proceed on well work. POOH w/ kill string. Install lubricator flange on top of hydrill in preparation for perforations scheduled $01 / 28$. RIH w/kill string. Secure well and rig. |

    

    01/28/2014 Bled off well. POOH w/ kill string. R/u wire line. RIH w/ 4-1/2"x30' EHC Perforating guns carrying 4, 1/2" JHPF at $90^{\circ}$ phasing. Performed three guns runs perforating the following intervals: $6,460^{\prime}-6,466^{\prime}$ MD, $6,400^{\prime}-6,410^{\prime}$ MD and $6,310^{\prime}-6,342$ MD (Perforated $6,460^{\prime}-6,466^{\prime}$ and $6,400^{\prime}-6,410^{\prime}$ MD using one gun with reverse charges and perforated $6,310^{\prime}-6,342^{\prime}$ MD using two guns; one w/ $20^{\prime}$ and the other with the remaining $\mathbf{1 2}^{\prime}$ '. Noticed casing pressure increase by 10 psi after first gun, 20 psi after the second gun and 25 psi after the final gun run. Changed crews in between the second and third gun run. Bled off to the casing to 5 psi and pumped injection water down the backside to keep the gas down. M/u the $8-5 / 8^{\prime \prime}$ casing scraper and bumper sub. RIH w/ tubing detail ( 88 stands) to 5,500 MD. Closed BOPE. Secured the well and rig.
    NOTE: After each run: pulled the carrier into the lubricator, closed the pipe rams and set casing on vapor recovery.
    01/29/2014

    01/30/2014
    Bled off well. Continued to RIH w/ 8-5/8" scraper to 7,470' MD (top of the liner). POOH and $\mathrm{L} / \mathrm{d} 8-5 / 8^{\prime \prime}$ scraper and bumper sub. Change crews. Loaded V-door w/ 6-5/8" opposed cup wash tools, $60^{\prime}$ apart. RIH w/ $2-3 / 8$ tbg detail ( 90 stands) to 5,700 MD. Closed BOPE. Secured well and rig. Hooked up backside to vapor recovery to continue bleeding off well over night.

    Bled off well. Continued to RIH to 7,960' MD. L/d top joint. MIRU MTS Company HSM. Primed and tested equipment - OK. Began well program:

    | Intenval | Fluid Specs | Volume | Rate (gpm) |  | Pressure (psi) |  |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | $7,884^{\prime}-7,960^{\prime}$ | (gallons) | Initial (g\% H-Cl w/add. | 2,680 | Final | Initial | Final |
    |  | Lease water | 1,930 |  | 2.0 | 1,150 | 1,000 |
    | $7,806^{\prime}-7,876^{\prime}$ | $15 \%$ H-Cl w/add. | 2,320 | 0.6 | 2.0 | 1,200 | 1,050 |
    |  | Lease water | 1,930 |  |  |  |  |
    | $7,726^{\prime}-7,798^{\prime}$ | $15 \%$ H-Cl w/add. | 1,600 | 0.5 | 2.0 | 1,260 | 1,050 |
    |  | Lease water | 1,878 |  |  |  |  |

    Change crews. RDMO MTS trucks. POOH w/ 30 stands of tbg to $6,100^{\prime}$ MD and closed the pipe rams. Set the casing on vapor recovery to bleed off over night. Loaded up the $8-5 / 8^{\prime \prime}$ cup tools to rig floor. Unloaded and measured 80 joints of 2-7/8" boronized tubing. Prep to continue to w/ $6-5 / 8^{\prime \prime}$ cup wash. Secure well and rig.

    01/31/2014
    Bled off well. Continue w/ $6-5 / 8^{\prime \prime}$ cup wash tool to fourth station at $7,630^{\prime}$ MD. Continued job as follows:

    | Interval | Fluid Specs | Volume | Rate (gpm) <br> (gallons) |  | Pritial |  |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | Pressure (psi) |  |  |  |  |  |  |
    | $7,630^{\prime}-7,692$ | $15 \%$ H-Cl w/add. | 2,480 | 0.5 | 2.1 | 1,150 | 1,200 |
    |  | Lease water | 1,855 |  |  |  |  |
    | $7,512^{\prime}-7,590^{\prime}$ | $15 \%$ H-Cl w/add. | 3,120 | 0.7 | 2.2 | 1,250 | 1,200 |
    |  | Lease water | 1,826 |  |  |  |  |

    RDMO MTS company. POOH w/tbg and L/d $6-5 / 8^{\prime \prime}$ cups. Change crews. M/u $8-5 / 8^{\prime \prime}$ cup tools at $60^{\prime}$ spacing. RIH w/ 86 stands to $5,500^{\prime} \mathrm{MD}$. Closed pipe rams. Secured the well and rig. Hooked up casing to vapor recovery.

    02/01/2014 Bled off well. Continued w/ $6-5 / 8^{\prime \prime}$ cup wash tool to sixth station at $6,400^{\prime} \mathrm{MD}$. Continued program as follows:

    | Interval | Fluid Specs | Volume | Rate (gpm) |  | Pressure (psi) |  |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | (gallons) | Initial | Final | Initial | Final |  |  |
    | $6,400^{\prime}-6,466^{\prime}$ | $15 \%$ H-Cl w/add. | 640 | 0.5 | 2.1 | 1,150 | 1,200 |
    |  | Lease water | 1,556 |  |  |  |  |
    | $6,310^{\prime}-6,342^{\prime}$ | $15 \%$ H-Cl w/add. | 1,280 | 0.7 | 2.2 | 1,250 | 1,200 |
    |  | Lease water | 1,534 |  |  |  |  |

    R/d MTS equipment. Changed crews. POOH w/ tbg detail. L/d 76 joints of tbg and stood back 88 stands. L/d the $8-5 / 8{ }^{\prime \prime}$ cup tools. RIH w/ a 10 stand kill stings. Closed pipe rams. Secured the well and rig. Opened the back side to the vapor recovery.

    02/03/2014 Bled off well. Pumped 78 bbls of lease water down the back side to kill the well. POOH w/ kill string. M/u gas anchor and pump. RIH w/ tubing detail. Spaced out boronized pipe as per program**. Continued to RIH w/tbg detail. M/u casing shuck. Landed tbg at 7,456' MD w/ pump intake at 7,394' MD. N/d BOPE. N/u rod riser. Secured the well.
    **Boronized tubing intervals: 49 joints $f / 840^{\prime}-2,425^{\prime}$ MD and 11 joints $f / 3,613^{\prime}-3,969^{\prime}$ MD.
    02/04/2014 Bled off well. M/u the new pump plunger w/ 12 "K-bars" on top and a 26 K sheer pin. RIH w/ rod detail. Spaced the well. Changed crews. Stroked the well w/ the rig for pump action - OK. M/u new hydraulic cylinder. Landed cylinder on flange. M/u production tree. Returned well to production. Waited 2 hours to verify production - OK. RDMO. Prep to move to West Pico 36.

    02/05/2014 Bled off well. MIRU. Pulled hydraulic cylinder. M/u 3 rods and stroked the well for pump action - OK. Stroked the well for 1 hour. Ld the 3 rods. Reinstall the hydraulic cylinder. Landed back onto the well. $\mathrm{N} / \mathrm{u}$ the production tree. Return to production. RDMO.

    NATURAL RESOURCES AGENCY OF CALIFORNIA

    ## DEPARTMENT OF CONSERVATION

    ## DIVISION OF OIL, GAS \& GEOTHERMAL RESOURCES

    ## NOTICE OF RECORDS DUE

    | Mr. Thomas McCollum | Cypress, California |
    | :--- | ---: |
    | Pacific Coast Energy Company LP ( B6127 ) | $9 / 2 / 2014$ |
    | 1555 Orcutt Hill Road |  |
    | Orcutt, CA 93455 |  |

    In accordance with Division 3 of the California Public Resources Code, the following records are due ( covering the reworking notice dated 12/22/2013 ) for your well "West Pico" 12 (037-20146). Beverly Hills Field, Los Angeles County, Sec. 30, T. 01S, R. 14W, SB B.\&M.

    Records, in duplicate are due within 60 days after completion of any well work or tests. Failure to provide such records may result in enforcement action, including issuance of violations, civil penalties and orders of the supervisor, pursuant to PRC 3236.5.

    x
    Well Summary (Form OG 100)
    History (Form OG 103, OGG 103)
    Core of sidewall sample
    (Form OG 101, OGG 101)
    

    Directional survey
    $\square$ Other

    ## REPORTS FOR THE MONTH OF

    : Production, oil and gas disposition, and injection reports are due on or before the 30th day of each month for the preceding calendar month. Division forms must be signed in the spaces provided.

    ## OIL AND GAS OPERATION

    $\square$
    Production and disposition reports (Form OG 110 or computer report)

    $\square$
    Injection reports (Form OG 110B or computer report)

    ## GEOTHERMAL OPERATION

    Production reports (Form OGG 110)

    Injection reports (Form OGG 110B)
    Name: John Huff Title: Associate Oil \& Gas Engineer

    | From: | Huff, John@DOC |
    | :--- | :--- |
    | Sent: | Monday, January 27, 2014 9:35 AM |
    | To: | 'Frank Smith' |
    | Cc: | Tom McCollum |
    | Subject: | RE: CBL added 14' |

    Frank,

    To follow up on our phone conversation, based on the results of the cement bond log, no cement squeeze is necessary at this time.

    Regards, John

    From: Frank Smith [mailto:Frank.Smith@breitburn.com]
    Sent: Monday, January 27, 2014 8:47 AM
    To: Huff, John@DOC
    Cc: Tom McCollum
    Subject: FW: CBL added 14'

    John -

    Last Friday, we ran a cement bond $\log (C B L)$, casing collar locator, gamma ray and neutron log in our West Pico well WP12RD1.
    This is the well that we want to perforate the Repetto, do an acid job and return to production.
    Top of Repetto is @6115'. Our top Repetto perforation will be at 6310'.
    This new CBL confirmed lots of cement behind pipe at $6150^{\prime}$ (CBL ran $6 / 17 / 1967$ ), but it also shows some cement behind casing up to 6034'.
    This is 81 feet above Top of Repetto and 276 feet above our top perforation.
    We believe that there is adequate protection of any USDW.
    Tom and I would like to call you around 9:15am this morning to discuss this with you.
    Our West Pico rig is awaiting orders and not having to do a cement squeeze would save us about $\$ 100,000$.
    Thanks - Frank Smith

    From: Paca, Ian C [mailto:Ian.Paca@bakerhughes.com]
    Sent: Friday, January 24, 2014 7:04 PM
    To: Frank Smith
    Cc: Tom McCollum; Renney, Rickey L
    Subject: CBL added 14'
    Frank,

    Please refer to attached files.

    Thanks,
    Ian

    Cypress, California January 02, 2014

    Mr. Brad Pierce, Agent<br>Pacific Coast Energy Company LP (B6127)<br>515 S. Flower Street, Suite 4800<br>Los Angeles, CA 90071

    Your proposal to Rework well "West Pico" 12, A.P.I. No. 037-20146, Section 30, T. 01S, R 14W, SB B. \& M., Beverly Hills field, East area, Repetto and Hauser pools, Los Angeles County, dated 12/22/2013, received 12/27/2013 has been examined in conjunction with records filed in this office. (Lat: 34.055560, Long: -118.390522, Datum: 83)

    ## THE PROPOSAL IS APPROVED PROVIDED:

    1. Blowout prevention equipment, as defined by this Division's publication No. MO7, shall be installed and maintained in operating condition and meet the following minimum requirements.
    a. Class II3M, with hydraulic controls, during rework 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. Prior to shooting any perforations for bradenhead squeezes, a pressure test of the $\mathbf{8 5 / 8 "}$ casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
    5. For isolation of the Repetto zone, the $\mathbf{8} \mathbf{5 / 8 "}$ casing shall be perforated at $6100^{\prime}$ and sufficient cement shall be squeezed to fill to 5950 ' outside the casing, or until a pressure increase, not to exceed fracture pressure, is noted.
    6. No program changes are made without prior Division approval.
    7. THIS DIVISION SHALL BE NOTIFIED TO:
    a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
    b. Witness the cement squeeze through the perforations at $610{ }^{\prime}$.

    NOTE:

    1. The top of the Repetto zone is at $6115^{\prime}$.
    (Continued on Page 2)

    Blanket Bond

    ## cc: Update

    EDP
    Los Angeles Fire Dept.

    | Engineer | John Huff |
    | :--- | :--- |
    | Office | (714) 816-6847 |

    $\mathrm{JCH} / \mathrm{jch}$

    Tim Kustic
    

    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.

    Page 2
    Well \#: "West Piso" 12
    API \#: 037-20146
    Permit: P 113-1148
    Date: January 02, 2014
    2. The Division routinely monitors monthly well production data and if anomalous water production is indicated, remedial action will be ordered.
    3. Upon completion of the proposed work, a Well Summary Report (form OG100), a History of Oil or Gas Well (form OG103), and copies of all logs, tests, and surveys shall be submitted to this office.
    4. Any well stimulation conducted after January 1, 2014 will be subject to Senate Bill 4, (Chapter 313, 2013 Statute) requirements.
    

    ## NOTICE OF INTENTION TO REWORK / REDRILL WELL

    Detailed instructions can be found at: www.conservation.ca.gov/dog/
    In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework $\boxtimes /$ redrill $\square$ well WP12RD1 API No. 040372014601
    (Check one)
    , T. iS
    , R. 14W
    , SB
    B.\&M., Beverly Hills

    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.)
    20" conductor @65'
    13 3/8" 48 \# H-40 Surface to $1224^{\prime} 17.5^{\prime \prime}$ hole cemented with 700 sacks
    $85 / 8^{\prime \prime} 36 \#$ J-55 \& N-80 Surface to 7512' $12.25^{\prime \prime}$ hole cemented with 700 sacks
    6 5/8" liner 28\# J-55 7470'-9232'
    Perforations: 7512'-9250'
    Fish @ 8171' below Otis Permatrieve packer set @8161'
    WELLBORE MECHANICAL ATTACHED
    The total depth is: $9250^{\prime}$ feet.
    Present completion zones): Hauser Formation
    Present zone pressure: 2400
    (Name)

    Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes $\square$ No $\boxtimes$
    For redrilling or deepening only, is a California Environmental Quality Act (CEQA) document required by a local agency?
    Yes $\square$ No $\square$ If yes, see next page.

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

    Well program consists of two parts:
    Part I: Perforating the Repetto Formation and a possible squeeze job @6,000' depends on top of cement located by CBL
    Part II: Stimulation of the Hawser Formation \& new Repetto perforations with $15 \% \mathrm{HCl}$ and then to RTP well w/HRP
    Detailed program is attached

    If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: feet $\qquad$ and $\qquad$ feet $\qquad$ Estimated true vertical depth:
    $\qquad$
    (Direction)
    Will the Field and/or Area change? YesNo $\begin{aligned} & \text { If yes, specify New Field: }\end{aligned}$ $\qquad$ New Area:

    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

    Pacific Coast Energy Company

    | Address | City/State | Zip Code |  |
    | :--- | :--- | :--- | :--- |
    | 1555 Orcutt Hill Road | Orcutt, CA | 93455 |  |
    | Name of Person Filing Notice | Telephone Number: | Signature |  |
    | Tom McCollum | $805-937-2576$ | EMail Address: |  |
    | Individual to contact for technical questions: | Telephone Number: <br> Frank Smith/Tom McCollum | $805-234-6694$ | frank.smith abreitburn.com |

    This notice and an indemnity or cash bond must be filed, and approval given, before the workover begins. (See the reverse side for bonding information.) If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

    ## INFORMATION FOR COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970 (CEQA)

    If an environmental document has been prepared by the lead agency, submit a copy of the Notice of Determination or Notice of Exemption with this notice. Please note that a CEQA determination by a local jurisdiction, if required, must be complete, or the Division may not issue a permit.

    ## 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.

    ## WELL OPERATIONS REQUIRING BONDING

    1. Drilling, redrilling, or deepening any well.
    2. Milling out or removing a casing or liner.
    3. Running and cementing casing or tubing.
    4. Running and cementing liners and inner liners.
    5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
    6. Drilling out any type of permanent plug.
    7. Reentering an abandoned well having no bond.

    This form may be printed from the DOGGR website at www. conservation.ca.gov/dog/

    DOGGR
    Received-
    DEC 272013

    # West Pico 12RD1 <br> Program to add D2 and R3 Repetto Perforations 

    ## Program:

    1. Move rig over well WP12RD1. Hold safety meeting.
    2. Install 3,000 psi BOPE with $27 / 8^{\prime \prime}$ pipe rams and test BOPE to 3,000 \#s. Call DOGGR Cypress office to see if they want to witness.
    3. Pull $27 / 8^{\prime \prime}$ tubing \& pump. Stand back tubing and send pump into Black Gold.
    4. Cleanout to 8,161 feet. POOH
    5. Rig up Baker Hughes Wire-line with full lubricator to run cased hole logs:

    Cement Bond Long (CBL), casing collar locator (CCL), and gamma-ray log (GR) from 7200' to 5200 ' to verify ETOC. POOH.
    a. If CBL shows ETOC to be @+/- 6150', then proceed w/perforating Repetto step \#9.
    b. If CNL shows ETOC not to be @6150', then proceed with squeeze job step \#6.
    6. Rig up Baker Hughes Wire-line perforators with full lubricator to shoot 4 holes @6,000' feet. Call Cypress DOGGR office to witness. POOH.
    7. Actual footage to be squeezed will be based on what the CBL tells us. Call Cypress DOGGR office to witness placement of cement. Rig up cementers, RIH with 2 7/8" tubing to $5,800^{\prime}$ and squeeze 100 linear feet of class G cement between $85 / 8^{\prime \prime}$ casing \& $121 / 4^{\prime \prime}$ hole. POOH . Rig down cementers
    8. Pick up $85 / 8^{\prime \prime}$ drill bit, RIH with $27 / 8^{\prime \prime}$ tubing and drill out cement. Cement returns to go into bin. POOH
    9. Rig up Baker Hughes Wire-line perforators with full lubricator \& perforate the following:

    | Zone Rep | Depths | Thickness | SPF | Total Shots | Gun Runs |
    | :---: | :---: | :---: | :---: | :---: | :---: |
    | R3 6460'-6466' | 6 feet | 4 | 24 | 1 |  |
    | R3 6400'-6410' | 10 feet | 4 | 40 | 1 |  |
    | D2 6310'-6342' | 32 feet | 4 | 128 | 2 |  |
    |  | 48 feet |  | 192 | 4 run |  |

    10. Call MTS Acid and Weatherford and proceed with acid stimulation

    Note: Top perforation will be at 6310' MD (4725' TVD), bottom hole pressure in the Repetto estimated @2200 psi. Pump job with pressure at or less than $90 \%$ of fracture pressure $=1275 \# \mathrm{~s}$ : [(0.8 psi/ft frac.gradient $-0.5 \mathrm{psi} / \mathrm{ft}$ acid wt$\left.)^{*} 0.90^{*} 4725=1275 \mathrm{psi}\right]$
    11.PU and RIH with 6 5/8" 60' opposed cup wash tool and acidize Hauser perforations from 7980' to 7512'.
    12. Pump 100 bbls of produced water down tubing and 100 bbls down casing to displace. POOH. Lay down $65 / 8$ " cup wash tools.
    13. PU and RIH with $85 / 8$ " 60 ; opposed cup wash tool and acidize new Repetto perforations from 6466' to 6310'.
    14. Displace with 300 Bbls clean lease water down tubing and 300 Bbls clean lease water down annulus. Bleed off remaining pressure.
    15. POOH . Rig down stimulation equipment.
    16. Pick up new hydraulic rod pump on $27 / 8^{\prime \prime}$ tubing string, run in hole and set pump @ 7930'. RTP well.
    

    From:
    Sent:
    To:
    Cc:
    Subject:

    Ung, June
    Thursday, January 19, 2012 9:18 AM
    Bynum, Carolyn; Hatfield, Sheila; Kirby Cook, Tina; Luft, Jennifer; Martinez, Valerie; Streiff, Jolene
    Blaine, Maria; Clark, Sue C.; Ellison, Burt; Glinzak, Mike; Kendall, Victoria; Macias, Addy Agent Database Update

    ## Operator Name Change (same agent)

    From BreitBurn Energy Company, LP to Pacific Coast Energy Company LP (B6127) - Districts 1 and 3

    June Ung
    Bond Administrator
    Department of Conservation
    Division of Oil, Gas, and Geothermal Resources
    801 K Street, MS 20-20
    Sacramento, CA 95814-3530
    (916) 323-1788

    ## Operator name change

    ## Breitburn Energy Company, LP

    To

    ## Pacific Coast Energy Company L.P.

    ## DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

    ## REPORT OF PROPERTY AND WELL TRANSFER

    | Field or County |  |  |
    | :--- | :---: | :--- |
    | ROSECRANS, SANTA FE SPRINGS, BEVERLY HILLS, SAWTELLE, SEAL |  |  |
    | BEACH, LONG BEACH, SOUTH ROSECRANS, SAWTELLE, DOMINGUEZ, |  |  |
    | LOS ANGELES COUNTY, EAST COYOTE, BREA-OLINDA, | District | District 1 (Cypress, California) |
    | Former owner |  |  |

    
    WELL TRANSFER NOTICE(NAME CHANGE)
    BREITBURN ENERGY CORPORATION
    CHANGED NAME TO
    BREITBURN ENERGY COMPANY LLDAPRIL 1, 1997(OG156 12-23-97)

    ## OCCIDENTAL PETROLEUM CORP.

    ## TRANSFERRED Beverly Hills wells (except S.E.A. \#1) to BREITBURN ENERGY CORP.

    Effec. 1-1-92; OG156 4-13-93. See Operator File (Breitburn) for complete list.

    WORK PERFORMED:
    Drill $\qquad$ Redrill
     Deepen $\qquad$ Plug $\qquad$ Alter casing $\qquad$
    Water flood $\qquad$ Water disposal $\qquad$ Abandon $\qquad$
    Other $\qquad$

    STATUS:
    Producing $\qquad$
    Recomp. prod. $\qquad$
    Water flood
    Water disposal
    Abandoned
    Other
    MAP AND BOOK

    RECORDS FILED \& DATE: Clerk LC OC RECORDS \& REQUIREMENTS CHECKED: Eng.

    ## B

    Summary (dup.)
     Other $\qquad$
    (Check records for signature and correct name of operator or well, S.T.R. and field.)

    Location $\qquad$ Notice states $\qquad$ | Elevation_ Notice states |
    | :--- |
    |  |
    | Production Reports |

    (If production reports not received, make notation and inform Sr . Steno. when recd.) If stimulation or disposal well: Form 121 Folder $\qquad$
    Form 19-A
    FINAL LETTER and
    FILE CLEARED
    F 121
    (Specify) F 165

    165A
    CARDS
    BOND:
    

    Hold Reason
    Release $\qquad$ Date eliz. F 150 b
    Request -records Clerk:

    Correct records_ | (Specify) |
    | :--- |
    | 165 |
    | 165 |

    

    Operato OCCIDENTAL PETROLEUM CORPORATION IEld Beverly Hills
    

    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.

    ## CONDITION OF WELL BEFORE DOING WORK:

    Total Depth: 8200'. Plugs: None. Junk: None.
    Casing Record: 20" conductor cemented at 64.5'.
    $13-3 / 8^{\prime \prime} 48^{\#}, \mathrm{H}-40$, seamless casing cemented at $1224^{1}$.
    $8-5 / 8^{\prime \prime} 36^{\# \prime}, \mathrm{~N}-80$ and J-55, seamless casing cemented at $751^{\prime}$, W.S.O. at $7394^{\prime}$ (four holes).
    $6-5 / 8^{" ~} 24^{\#}, \mathrm{~J}-55$, seamless liner hung at $8125^{\prime}$, top of Burns lead seal hanger at $7476.31^{1}$.
    Perforated from $8125^{\prime}$ to $7981.63^{\prime}, 7961.63^{1}$ to $7789.99^{\prime}$ and $7747.97^{1}$ to $7509.81^{1}$ with 60 mesh, 24 rows, $2^{\prime \prime}$ slots, $6^{\prime \prime}$ ceniers, machine cut.

    ## PRESENT CONDITION OF WELL:

    Original Total Depth: 8200'. Plugged: 8120-7522'. Junk: (See Page 1A.)
    Redrill \# 1 Total Depth: 9250'. Plugs: None.
    Junk: (See Page 1A.)
    Casing Record: 20" conductor cemented at 64.5'.
    13-3/8" $48^{\#}, \mathrm{H}-40$, seamless casing cemented at 1224'.
    8-5/8" $36^{\# \#}, \mathrm{~N}-80$ and J-55, seamless casing cemented at $7512^{\prime}$, W.S.O. at $7394^{1}$ (four holes).
    $6-5 / 8^{" ~} 28^{\#}, \mathrm{~J}-55$, seamless liner hung at 9232 ', top of Burns plain type liner hanger at $7469.62^{\prime}$.
    Perforated from $2232^{\prime}$ to $8977.51^{1}, 8956.39^{1}$ to $8741.94^{\prime}$ and $8698.04^{1}$ to $8461.64^{\prime}$ with 60 mesh, 24 rows, 2 " straight slots, 6 " centers (machin cut), $8164^{\prime}$ to $8154^{\prime}, 8140^{\prime}$ to $8120^{\prime}, 8110^{\prime}$ to $7980^{\prime}, 7960^{\prime}$ to $7925^{\prime}$, $7916^{\prime}$ to $7884^{\prime}, 7876^{\prime}$ to $7866^{\prime}, 7860^{\prime}$ to $7826^{\prime}, 7820^{\prime}$ to $7806^{\prime}, 7798^{\prime}$ to $7788^{1}, 7746^{\prime}$ to $7726^{\prime}, 7692^{1}$ to $7630^{\prime}$ and $7590^{1}$ to $7512^{\prime}$ with four Densi-jet XIX holes per foot.

    DIVISIOII OF OIL AND GAS
    6-5/8" Ot is Perma-trieve packer set at 8166'.

    ## PRESENT CONDITION OF WELL: (Continued)

    Junk (In Original Hole): 6-5/8" $24^{\#}$, J-55, seamless, perforated liner at 8125', top at 7573.72'.

    Junk (In Redrill Hole): 6-5/8" Baker Model "D" packer (damaged) at 8171'. (Note: Packer found at $8171^{\prime \prime}$ instead of $8189^{\prime}$.)

    20 joints, $592^{\prime}$, of 2-3/8" $4.6^{\text {\# }}, \mathrm{J}-55$, Security flushioint tubing below Model "D" packer.

    All measurements corrected to original K.B. measurement which was $12.5^{\prime}$ above ground (183.5' K.B.).
    1968
    9/5 (Occidental Petroleum Corporation Rig)
    Moved in drilling equipment and rigged up. Bled off pressure. Rigged up and ran Go-Western jet perforator and perforated one $1 / 2^{\prime \prime}$ hole in $3-1 / 2^{\prime \prime}$ tubing at 7364'. Killed well with mud. Conditioned mud.

    9/6 Installed back pressure valves. Removed Xmas tree. Installed B.O.P. equipment. Changed pipe rams to $2-3 / 8{ }^{\prime \prime}$. Pulled ${ }^{\# 1} 1$ side string of $2-3 / 8$ " tubing. Commenced pulling ${ }^{\#} 2$ side string of $2-3 / 8^{\prime \prime}$ tubing.

    Completed pulling ${ }^{\#} 2$ side string of $2-3 / 8^{"}$ tubing. Removed donut. Circulated and conditioned mud. Changed rams in B.O.P. equipment to $3-1 / 2^{\prime \prime}$. Pulled and laid down $3-1 / 2^{\prime \prime}$ drill pipe. Laid down $2-3 / 8^{\prime \prime}$ tubing. Changed rams to 4 ".

    9/8 Ran in hole with wash tool on 2-3/8" tubing and $4^{\prime \prime}$ drill pipe to $8125^{\prime}$. Circulated. Washed liner from $8125^{\prime}$ to 7511 '. Circulated hole clean. Pulled out of hole. Ran in with Baash-Ross spear, bumper sub and jars and hooked on to liner. Jarred for 1 hour, no movement. Commenced running in with McCullough free point indicator.

    9/9 Completed running McCullough free point indicator and found liner stuck from 7600'. Pulled free point indicator. Released spear and pulled out of liner. Pulled out of hole. Laid down fishing tools. Ran in with inside cutter and cut 6-5/8" liner at 7572'. Pulled and laid down cutter. Ran Baash-Ross spear and latched on to liner. Pulled out and recovered 97.40' of liner. Top of liner at 7573.71'. Commenced running in hole with $650^{\prime}$ of $2-3 / 8^{\prime \prime}$ tubing tail.

    9/10 Completed running in hole with $2-3 / 8$ " tubing tail on 4 " drill pipe to bottom. Circulated preparatory to setting cement plug.

    Plug \#1 (8120-7572 ${ }^{\circ}$ ): With 650' of 2-3/8" tubing tail on $4^{\prime \prime}$ drill pipe hung at $8120^{\prime}$, equalized 36 sacks of Permanente Class "G" cement and 36 cubic feet of Pozmix, 850\# salt, $135^{\#}$ gel and $25^{\#}$ CFR-2 ( 105 cubic feet slurry). Cement in place at $9: 45 \mathrm{a} . \mathrm{m}$.

    Pulled out. Ran in with $12^{\prime \prime}$ hole opener and opened hole to $12^{\prime \prime}$ from $7512^{\prime}$ to $7572^{\prime}$. Circulated. Pulled out and laid down hole opener.

    1968

    Ran on in to $7513^{\prime}$ and drilled out cement plug from $7513^{\prime}$ to $7522^{\prime}$. Circulated and conditioned mud preparatory to running Dyna-Drill.

    ## REDRILL \#1:

    Ran in with 7-5/8" bit with Dyna-Drill and oriented Dyna-Drill at 7522'. Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $7522^{\prime}$ to $7590^{\prime}$. Pulled out. Laid down Dyna-Drill.

    9/13 Ran in with 7-5/8" bit to 7590' and circulated. Directionally redrilled 7-5/8" hole from 7590' to 7655'. Pulled out. Ran in with 7-5/8" bit with Dyna-Drill to 7615' and found $40^{\prime}$ fill. Washed out fill.

    9/14 Bit plugged. Would not circulate. Pulled out bit and Dyna-Drill; pulled wet. Cleaned sand out of drill collar and Dyna-Drill. Ran in hole with $7-5 / 8^{\prime \prime}$ bit with Dyna-Drill to $7655^{\prime}$. Ran surveys. Survey stuck. Pulled survey loose. Bit sanded up. Pulled out wet. Laid down Dyna-Drill. Ran in hole with 7-5/8" bit to 7508' and circulated and conditioned mud.

    9/15 Ran on in to 7625' and cleaned out 30' fill to 7655'. Directionally redrilled 7-5/8" hole from 7655' to 7687'. Pulled out. Ran in with 7-5/8" bit with Dyna-Drill and oriented Dyna-Drill at $7687^{\prime}$. Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $7687^{\prime}$ to $7810^{\prime}$.

    9/16 Directionally redrilled 7-5/8" hole from 7810' to 7895'. Installed Exploration Logging, Inc. unit at $7810^{\prime}$.

    9/17 Directionally redrilled 7-5/8" hole from 7895' to 8021'. Pulled out and laid down Dyna-Drill. Commenced running in hole with $7-5 / 8$ " bit .
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    9/19 Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8160^{\prime}$ to $8328^{\prime}$. Pulled out and laid down
    Dyna-Drill. Ran in with $7-5 / 8^{\prime \prime}$ bit to $8235^{\prime}$ and cleaned out from $8235^{\prime}$ to $8328^{\prime}$.
    Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8160^{\prime}$ to $8328^{\prime}$. Pulled out and laid down
    Dyna-Drill. Ran in with $7-5 / 8^{\prime \prime}$ bit to $8235^{\prime}$ and cleaned out from $8235^{\prime}$ to $8328^{\prime}$. Directionally redrilled 7-5/8" hole from $8328^{\prime}$ to $8333^{\prime}$. 9/20 Directionally redrilled 7-5/8" hole from 8333' to 8568'.

    9/21 Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8568^{\prime}$ to $8646^{\prime}$. Pulled out. Ran in with $7-5 / 8^{\prime \prime}$ bit with Dyna-Drill and oriented Dyna-Drill at 8646'. Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8646^{\prime}$ to $8677^{\prime}$.

    9/22 Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from 8677' to $8713^{\prime}$. Pulled out and laid down Dyna-Drill. Ran in with $7-5 / 8^{\prime \prime}$ bit with new Dyna-Drill and oriented Dyna-Drill at $8713^{\prime}$. Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8713^{\prime}$ to $8800^{\prime}$.

    9/23 Directionally redrilled $7-5 / 8^{\prime \prime}$ hole from $8800^{\prime}$ to $8832^{\prime}$. Pulled out and laid down Dyna-Drill. Ran in with $7-5 / 8^{\prime \prime}$ bit and directionally redrilled $7-5 / 8^{\prime \prime}$ hole from 8832' to $8898^{\prime}$.

    9/24 Directionally redrilled 7-5/8" hole from 8898' to 8998'. Pulled out.
    9/25 Worked on brakes for 13 hours. Ran in with 7-5/8" bit and directionally redrilled 7-5/8' hole from 8998' to 9052'.

    9/26 Directionally redrilled 7-5/8" hole from 9052' to 9156'.
    9/27 Directionally redrilled 7-5/8" hole from 9156' to 9250' (T.D. of the redrill \#1 hole). Circulated at total depth to clean hole.

    9/28
    Completed running in hole with 7-5/8" bit and directionally redrilled 7-5/8" hole from $8021^{\prime}$ to $8160^{\prime}$. Pulled out. Ran in with $7-5 / 8^{\prime \prime}$ bit with Dyna-Drill and oriented Dyna-Drill at 8160'. Ran survey to check. Re-oriented Dyna-Drill. ,

    Pulled up into 8-5/8" casing shoe. Ran to bottom, no fill. Circulated and conditioned mud preparatory to running logs. Pulled out.

    Ran Schlumberger Induction-Neutron Log, recorded from $9244^{\prime}$ to 75 16' $^{\prime}$, and Compensated Formation Density Log, recorded from 9253' to 75 12' $^{\prime}$ (Schlumberger's measurements).

    Ran in with 7-5/8" bit with 6-point reamer to $7512^{\prime}$ and reamed hole from $7512^{\prime}$ to 9250'. Released Exploration Logging, Inc. unit.

    Circulated and conditioned mud preparatory to running liner. Pulled out.
    Ran 42 joints, $1754.14^{\prime}$, of 6-5/8" $28^{\text {\# }}$, J-55, new, seamless, Security flushjoint, blank and perforated liner and hung at $9232^{\prime}$ with $2.70^{\prime}$ port collar at 8416.29', $3.54^{\prime}$ float collar at 8368.84', cement baskets at $8451^{\prime}$ and $8441^{\prime}$, Burns plain type liner hanger at 7469.62' and 45 B\&W centralizers: No. 13667 V.R.C. centralizers (18)--one on every joint from 9232' to 8462' and No. 15667 centralizers with KK-6 bows (27)--one every $30^{\prime}$ from $8462^{\prime}$ to $8000^{\prime}$ and one on every joint from $8000^{\prime}$ to $7512^{\prime}$ (total liner 1762.38').

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 6 | 6-5/8" 28\#, J-55, new, seamless, Security flushjoint, perforated with 60 mesh, 24 rows, 2 " straight slots, 6 " centers. Bullnose on bottom. | 9232.00' | $8977.51{ }^{1}$ | $254.4{ }^{1}$ |
    | 1 | 6-5/8" 28\#, J-55, new, seamless, Security flushjoint, blank | 8977.51 | 8956.39 | $21.12{ }^{1}$ |
    | 5 | 6-5/8" 28\#, J-55, new, seamless, Security flushjoint, perforated with 60 mesh, 24 rows, 2 " straight slots, 6" centers | 8956.39 | 8741.94' | $214.45^{\prime}$ |
    | 1 | 6-5/8" 28\#, J-55., new, seamless, Security flushioint, blank | $8741.94{ }^{1}$ | 8698.04 ${ }^{\text {1 }}$ | $43.90^{1}$ |
    | 6 | 6-5/8" 28\#, J-55, new, seamless, Security flushioint, perforated with 60 mesh, 24 rows, 2 " straight slots, 6" centers | 8698.04 ${ }^{1}$ | 8461.64' | $236.40^{\prime}$ |
    | 1 | 6-5/8" 28\#, J-55, new, seamless, Security flushjoint, blank* | $8461.64{ }^{1}$ | 8418.99 | $42.65{ }^{\prime}$ |
    |  | Port Collar | $8418.99^{1}$ | 8416.29 ${ }^{1}$ | $2.70^{\prime}$ |
    | 1 | 6-5/8" $28^{\# \#}, \mathrm{~J}-55$, new, seamless, Security flushjoint, blank | 8416.29 | 8372.38 ${ }^{\text {' }}$ | $43.91{ }^{1}$ |
    | 21 | Latch-down Float Collar - | $8372.38^{1}$ | 8368.84' | $3.54{ }^{\prime}$ |
    |  | 6-5/8" 28\# , J-55, new, seamless, Security flushjoint, blank | 8368.84 ${ }^{1}$ | $7471.62^{\prime}$ | $897.22^{1}$ |
    |  | Burns plain type liner hanger | $7471.62^{1}$ | $7469.62^{1}$ | $2.00^{1}$ |
    | 42 |  | Total Line | ung | $1762.38^{\prime}$ |

    *Cement baskets at $8451^{1}$ and $8441^{1}$.
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    $\overline{9 / 30} \quad$ (Continued)
    Pumped in 100 cubic feet of $18 \%$ salt water. Cemented liner through port collar at 8416 ' with 75 sacks of Permanente Class " $G$ " cement and 75 cubic feet of Pozmix D premixed with 2 sacks of gel, 53 pounds of CFR-2 and 15 sacks of salt followed with 50 sacks of Permanente Class " $G$ " cement premixed with 24 pounds of CFR-2 and 4 sacks of salt. Total 166 cubic feet of slurry. Cement in place at 4:00 p.m. Backscuttled 70 cubic feet of cement. Pulled out.

    Lost swab cups and one joint of tubing in the hole. Ran in with one joint of tubing on 4" drill pipe and attempted to recover fish.

    10/1 Chain tonged out of hole. Did not recover fish. Ran in with Baash-Ross fishing tools and attempted to recover fish without success. Laid down fishing tools. Ran in with $5-5 / 8^{\prime \prime}$ bit and found top of cement at 7472'. Drilled out cement from 7472' to $7502^{\prime}$. Pushed fish to $8333^{\prime}$. Circulated and conditioned mud. Pulled out and laid down bit. Commenced running in hole with Baash-Ross fishing tools.

    10/2 Completed running in hole with Baash-Ross fishing tools and attempted to recover fish. Pulled out. Did not recover fish. Checked socket. Reran socket, got over fish but slips failed to set. Pulled out. Changed sockets. Ran socket and found top of fish at 8276'. Worked up hole. Lost fish $90^{\prime}$ before out of liner. Pulled out .

    10/3 Ran in with washover mill and located top of fish at $8307^{\prime}$. Milled on fish at $8307^{\prime}$. Could not make any hole. Pulled out and laid down mill. Ran in with Bowen socket and latched on to fish. Pulled out. Recovered all of the fish. Laid down fishing tools. Ran in with 5-5/8" bit with 6-1/4" scraper to 8368', top of float collar. Drilled out rubber plug, float collar and cleaned out from $8368^{1}$ to 8416', top of port collar.

    10/4 Circulated at 8416'. Pulled out and laid down bit and scraper. Ran in with Halliburton RTTS tester and set tool at $7516^{\prime}$. Pressured to 2000 psi ; no circulation. Pulled out and laid down tool.

    Ran Go-Western Cement Bond Log. Tool functioned improperly; however, able to determine there was no cement.

    Ran Go-Western jet perforator and perforated four holes at $7477^{\prime}$ and four holes at $8400^{\prime}$. Pulled out and laid jet perforator.
    (Continued)
    Squeeze \#1 (8400' and $7477^{\prime}$ ): Ran and set Baker Model "K" retainer at 8380'. Ran in with squeeze tool on 11 stands of $2-3 / 8$ " tubing on bottom of 4 " drill pipe. Circulated through holes. Pumped in 100 cubic feet of $18 \%$ salt water followed with 75 sacks of Class " $G$ " cement and 75 cubic feet of Pozmix "D" premixed with 2 sacks of gel, 53 pounds of CFR-2 and 15 sacks of salt followed with 50 sacks of Class "G" cement premixed with 24 pounds of CFR-2 and 4 sacks of salt. Displaced cement with 467 cubic feet of mud. Squeezed cement away. Minimum pressure 200 psi; maximum pressure 1800 psi. Circulating pressure 500 psi. Cement in place at 9:20 p.m. Backscuttled out 75 cubic feet of cement and 100 cubic feet of salt water.

    10/5 Pulled out and laid down squeeze tools. Ran in with 5-5/8" bit with 6-5/8" scraper; bit plugged. Pulled out of hole. Unplugged bit. Ran in with $5-5 / 8$ " bit with 6-5/8" scraper and located top of cement at $8347^{1}$. Circulated and conditioned mud. Commenced pulling out of hole.

    10/6 Completed pulling out of hole. Laid down bit and scraper.
    Ran Go-Western Cement Bond Log; no cement. Ran Go-Western Neutron-Corrlation Log and recorded from 8342' to 7300' (Go-Western's measurements).

    Ran Go-Western jet perforator and perforated four holes at $8340^{\prime}$ and four holes at $7480^{\prime}$ in 6-5/8" liner.

    Squeeze \#2 (8340' and 7480'): Ran and set Baker Model "K" cement retainer at 8320'.
     pipe and stabbed into retainer. Circulated freely. Pumped in 100 cubic feet of $18 \%$ salt water followed by 75 sacks of Class "G" cement and 75 cubic feet of Pozmix "D" premixed with 2 sacks of gel, 53 pounds of CFR-2 and 15 sacks of salt followed by 50 sacks of Class "G" cement premixed with 24 pounds CFR-2 and 4 sacks of salt. Total slurry 255 cubic feet. Displaced cement with 464 cubic feet of mud. Cement in place at 7: $15 \mathrm{p} . \mathrm{m}$. Backscuttled out 180 cubic feet of cement.

    10/7 Circulated at 8294'. Pulled out. Ran in with Go-Western Cement Bond Log and it stopped on top of liner. Pulled out. Ran in with $5-5 / 8^{\prime \prime}$ bit and scraper to 8300'. Reversed circulation to clean drill pipe. Drilled out cement from $8300^{1}$ to $8320^{\prime}$ and drilled on retainer at $8320^{\prime}$.

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    Drilled on retainer at $8320^{\prime}$ and cleaned out to $8340^{\prime}$. Circulated. Pulled and laid down bit and scraper.

    Ran Go-Western Cement Bond Log with Sonic Spectrum and recorded from 8330' to 7450 ' (Go-Western's measurements). Cement bond did not look good.

    Ran Go-Western jet perforator and perforated four holes at 8340'.
    Squeeze \#3 (8340'): Ran and set Baker Model "K" retainer at 8250'. Ran in with squeeze tool on 10 joints of tubing on bottom of $4^{\prime \prime}$ drill pipe. Pumped in 100 cubic feet of $18 \%$ salt water followed with 75 sacks of Class " $G$ " cement premixed with $0.75 \%$ CFR-2 and $18 \%$ salt. Closed tool and trapped 50 cubic feet of water. Broke down with 2800 psi. Squeezed away 73 cubic feet of slurry with 2000 psi, broke back to 1600 psi. Staged 5 times. Final pressure 1950 psi and held. Cement in place at 5:30 p.m. Pulled out of retainer with pressure on drill pipe. Backscuttled drill pipe clean; no cement.

    Pulled out and laid down squeeze tools.
    10/9 Ran in with 5-5/8" bit to top of Model "K" retainer at 8250'. Drilled out retainer and cement from $8250^{\prime}$ to $8378^{\prime}$. Cleaned out from $8378^{\prime}$ to $8380^{\prime}$, top of retainer. Circulated and conditioned mud. Pulled out. (Pulled tight. Junk above bit. Worked pipe up through casing.) Laid down bit.

    Ran Go-Western Cement Bond Log with Sonic Spectrum and recorded from $8370^{\prime}$ to 7450' (Go-Western's measurements). Log showed good bond from 7980' to 8340'.

    Ran in with open-end drill pipe to $8380^{\prime}$ and backscuitled hole clean.
    10/10 Circulated and conditioned mud preparatory to running jet perforator. Pulled out.
    Ran Go-Western jet perforated and perforated four holes at 7780'.
    Squeeze \#4 $4780^{\prime}$ ): Ran and set retainer at 7690'. Ran Baker stab-in tool on 3 stands of $2-3 / 8^{\prime \prime}$ tubing on $4^{\prime \prime}$ drill pipe and stabbed into retainer. Pressured to 4500 psi, no breakdown. Pulled out and laid down squeeze tools.

    Ran in with 5-5/8" bit to 7690' and drilled out retainer. Cleaned out to 8380'. Circulated and conditioned mud.
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    $\overline{10 / 11} \quad$ Circulated and conditioned mud. Displaced mud with $10 \%$ salt water. Pulled out.
    Ran Go-Western jet perforator and commenced perforating 6-5/8" liner.
    10/12 Completed jet perforating 6-5/8" liner with four Densi-jet XIX holes per foot from $8164^{\prime}$ to $8154^{\prime}, 8140^{\prime}$ to $8120^{\prime}, 8110^{\prime}$ to $8020^{\prime}, 7940^{\prime}$ to $7925^{\prime}, 7916^{\prime}$ to 7884', 7876' to 7866', 7860' to 7826', 7820' to 7806', 7798' to 7788', $769 \mathbf{'}^{\prime}$ to $7630^{\prime}$ and $7590^{\prime}$ to $7512^{\prime}$.

    Ran in with $5-5 / 8^{\prime \prime}$ bit and scraper and scraped shot holes in 6-5/8" liner from $7512^{\prime}$ to $8164^{\prime}$ and cleaned out to $8318^{\prime}$. Circulated and conditioned mud. Pulled out and laid down bit and scraper.

    CT "1 (8180-7980'): Ran Halliburton tester with Baker Model "C" retrievable bridge plug on $4^{\prime \prime}$ drill pipe. Set bridge plug at $8180^{\prime}$. Set $6-5 / 8^{\prime \prime}$ packer at $7980^{\prime}$ with $4-3 / 4^{\prime \prime}$ tail extending to $7996^{\prime}$. Opened tool at 11:38 p.m. for a 3 -minute initial flow. Blow in bucket hard. Closed tool at 11:41 p.m. for a 2 -hour final shut-in.

    10/13 Pulled tester loose at 1:41 arm.
    

    Dropped down to retrievable bridge.
    CT \#2 (7980-7750') - MISRUN: Pulled up and set bridge plug at 7980'. Set $5-1 / 2^{\prime \prime}$ packer at $7750^{\prime}$ with $3-3 / 4^{\prime \prime}$ tail extending to $7766^{\prime}$. Opened tool and fluid dropped immediately. Packer rubber washed out. Pulled tester loose and backscuttled. Pulled out of hole with tester tools. Left bridge plug in the hole.

    Checked tester tools, O.K. Ran wire line and located retrievable bridge plug at 7985'.

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    CT \#3 (7985-7805 '): Ran Halliburton tester on 4" drill pipe. Set 5-1/2" packer at 7805' with 3-3/4" tail extending to $7819^{\prime}$. Opened tool at 12:07 pom. for a 3 -minute initial flow. Had a very strong blow. Closed tool at 12:10 p.m. for a 2 -hour final shut-in. Pulled tester loose.
    

    CT \#4 (7985-7491'): Reset Halliburton $5-1 / 2^{\prime \prime}$ packer at 7491' with $3-3 / 4^{\prime \prime}$ tail extending to $7505^{\prime}$. Bridge plug set at $7985^{\prime}$. Opened tool at 2:27 p.m. for a 3 -minute initial flow. Had a strong blow for 3 minutes. Closed tool at 2:30 pom. for a 2 -hour final shut-in. Pulled tester loose. Backscuttled. Pulled tester out of the hole.
    

    Commenced running in hole with Bowen socket.
    10/14 Completed running in hole with Bowen socket to $7985^{\prime}$ and attempted to retrieve bridge plug. Pulled out of hole slowly. Recovered top part of bridge plug ("J" tool assembly). Left body and slips in the hole. Ran in with socket to $7958^{\prime}$ and displaced $10 \%$ salt water with salt-starch mud. Circulated and conditioned mud. Fished for Baker bridge plug. Pulled out of hole slowly; no recovery.

    10/15 Ran in with fishing tools and tools stopped at 7472'. Pulled out of hole slowly. Ran in with $5-1 / 2^{\prime \prime} \times 3-5 / 8^{\prime \prime}$ mill and found top of fish at 7975'. Milled on fish. Made $1 / 2^{\prime}$. Pulled out. Ran in with \#2 $5-1 / 2^{\prime \prime} \times 3-5 / 8^{\prime \prime}$ mill to $7975^{\prime}$ and milled on bridge plug. Did not make any footage. Commenced pulling out of hole.

    10/16 Completed pulling out of hole with mill. Laid down mill. Ran in hole with impression block. Showed 1" rod bent over into 2" hook. Laid down impression block. Ran in with socket; unable to get into liner. Pulled out. Ran in with 5-1/2"O.D. x $3-1 / 2^{\prime \prime}$ I.D. socket and worked over top of fish. Pulled out of hole. Did not recover fish. Ran in with 5-1/2" O.D. junk mill, worked into liner and ran in to 7946'. Circulated.

    10/17 Ran on in to $7975^{\prime}$ and milled on fish. Pulled out. Ran in with magnet on wire line and recovered some small pieces of metal. Ran in 5-1/2" mill and milled on fish at 7980'.

    10/18 Milled on fish at 7980'. Pulled out. Recovered 4" $\times 3^{\prime \prime}$ nut and spring off bridge plug in mill. Laid down mill. Ran in with socket and found fish at 8000'. Took hold of fish and pulled very slowly out of hole. Recovered all of fish. Ran in hole with 5-5/8" bit and junk sub to $8380^{\prime}$ and circulated and conditioned mud.

    10/19 Drilled on retainer from $8380^{\prime}$ to $8383^{\prime}$. Circulated and conditioned mud preparatory to perforating 6-5/8" liner.

    Ran Go-Western jet perforator and perforated four Densi-jet XIX holes per foot in the $6-5 / 8$ " liner from $8020^{\prime}$ to $7980^{\prime}, 7960^{\prime}$ to $7940^{\prime}$ and $7746^{\prime}$ to $7726^{\prime}$.

    Laid down jet perforator. Ran in with 5-5/8" bit and junk sub to 8383' and drilled on retainer and junk from $8383^{\prime}$ to $8384^{\prime}$.

    10/20 Drilled on retainer and junk from $8384^{\prime}$ to $8410^{1}$.
    10/21 Drilled on retainer and junk from 8410' to 8412'.
    10/22 Drilled on retainer and junk from 8412' to 8416'. Drilled out port collar from 8416' to $8419^{\prime}$. Cleaned out from $8419^{\prime}$ to $9202^{\prime}$ and cleaned out fill from $9202^{\prime}$ to $9232^{\prime}$. Circulated and conditioned mud. Pulled out. Laid down junk sub. Ran in with 5-5/8" bit with 6-5/8" casing scraper and scraped liner to $9232^{\prime}$. Pulled out and laid down bit and scraper. Ran in with open-end drill pipe to $9232^{\prime}$.

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    10/23 Reversed circulation with open-end drill pipe at 9232'. Pulled out. Laid down drill pipe. Rigged up to run tubing.

    Commenced running 2-7/8" $6.4^{\text {\# }}, \mathrm{N}-80$, new, National seal-lock tubing.
    10/24 Completed running 2-7/8" $6.4^{\#}, N-80$, new, National seal-lock tubing with H-1 $6-5 / 8^{\prime \prime} \times 2-7 / 8^{\prime \prime}$ hydraulic production packer, sliding sleeve, safety joint, $\mathrm{H}-2$ $8-5 / 8^{\prime \prime} \times 2-7 / 8^{\prime \prime} \times 2-3 / 8$ " hydraulic production packer and two gas lift mandrels and landed at 9170.51 。 Tubing was hydrotested to 5000 psi.

    Ran 219 joints of 2-3/8" 4.6\#, J-55, new, National seal-lock tubing with six gas lift mandrels and packer stab-in assembly on bottom and landed at 7445.59'. Tubing was hydrotested to 5000 psi.

    ## TUBING DETAIL

    Long String:

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 25 | Perforated production nipple | 9170.51 | $9168.16^{\prime}$ | $2.35^{\prime}$ |
    |  | 2-7/8" 6.4 ${ }^{\#}$, N-80, new, National seal-lock tubing | $9168.16^{\prime}$ | $8409.59^{1}$ | $758.5{ }^{\prime}$ |
    |  | Brown Oil Tool "Husky" H-1 6-5/8" x 2-7/8" Hydraulic production packer | 8409.59 | $8402.35{ }^{1}$ | $7.24{ }^{1}$ |
    | 1 | 2-7/8" 6.4\#, N-80, new, National seal-lock tubing | 8402.35 | 8372.11 | $30.24{ }^{\prime}$ |
    |  | 2-7/8" National seal-lock $\times 2-7 / 8^{\prime \prime}$ 8 round thread crossover | 8372.11 | $8371.69^{1}$ | $1.02{ }^{\text { }}$ |
    |  | $2-7 / 8$ " Otis "XO" sliding sleeve | $8371.09{ }^{1}$ | 8367.92' | $3.17^{\prime \prime}$ |
    |  | 2-7/8"8 round thread $\times 2-7 / 8^{\prime \prime}$ | $8367.92^{1}$ | $8366.80^{1}$ | $1.12^{1}$ |
    | 30 | National seal-lock crossover 2-7/8" 6.4 \# , N-80, new, National seal-lock tubing | 8366.80' | 7453.22' | $913.58{ }^{\prime}$ |
    |  | 2-7/8" Brown Oil Tool, Type "CC", safety joint | $7453.22^{1}$ | $7451.9{ }^{1}$ | $1.23{ }^{\prime}$ |
    |  | Brown Oil Tool 8-5/8" $\times 2-7 / 8^{\prime \prime} \times$ 2-3/8" "Husky" $\mathrm{H}-2$ hydraulic, dual production packer | 7451.99' | $7445.59^{1}$ | $6.40{ }^{1}$ |
    | 1 | 2-7/8" 6.4\#, N-80, new, National seal-lock tubing | $7445.59{ }^{1}$ | $7415.65^{1}$ | $29.94{ }^{1}$ |
    |  | 2-7/8" KBM gas lift mandrel (975\# HKB, 1/4" port valve) | $7415.65^{\prime}$ | $7406.60^{\prime}$ | $9.05^{1}$ |

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    ## TUBING DETAIL (Continued)

    Long String: (Continued)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 71 | 2-7/8" 6.4\#, N-80, new, National seal-lock tubing | $7406.60{ }^{\prime}$ | 5417.18' | 1989.42 ${ }^{\text { }}$ |
    |  | 2-7/8" Harold Brown Type "A" JR conventional gas lift mandrel (1000\# B-JR, $1 / 4^{\prime \prime}$ port valve) | $5417.18^{\prime}$ | 5411.96' | $5.22^{\prime}$ |
    | 175 | 2-7/8" 6.4\#, N-80, new, National seal-lock tubing | $5411.96{ }^{1}$ | $18.80^{\prime}$ | $5393.16^{\text {i }}$ |
    |  | K.B. to Tubing Head | $18.80^{\prime}$ | $0^{\prime}$ | $18.80{ }^{\prime}$ |
    | 303 |  | Total Tubi | Landed | 9170.51 |

    Short String:

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 2 | 2-3/8" Brown Oil Tool packer stab-in assembly | 7445.59 | 7444.33' | $1.26{ }^{\prime}$ |
    |  | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | 7444.33' | $7381.03^{\prime}$ | $63.30{ }^{1}$ |
    |  | 2-3/8"KBM gas lift mandrel (750\# 1/4" port HKB) | $7381.03{ }^{1}$ | 7371.61 | $9.42^{1}$ |
    | 5 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | $7371.61^{1}$ | 7214.94' | 156.67 ${ }^{\text {a }}$ |
    |  | $2-3 / 8^{\prime \prime}$ KBM gas lift mandrel (645\# 110 Diff. KE-I, 1/4" port 10/64) | 7214.94' | $7205.54{ }^{1}$ | 9.401 |
    | 11 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | $7205.54{ }^{1}$ | $6861.42^{1}$ | $344.12^{1}$ |
    |  | $2-3 / 8^{\prime \prime}$ KBM gas lift mandrel (645\# 140 Diff. KE-I, 1/4" port 10/64) | 6861.42' | $6852.12^{1}$ | $9.30^{1}$ |
    | 11 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | $6852.12^{1}$ | $6511.84^{1}$ | $340.28^{\prime}$ |
    |  | 2-3/8"KBM gas lift mandrel (645* 160 Diff. KE-I, 1/4" port (10/64) | $6511.84{ }^{1}$ | $6502.44^{\prime}$ | $9.40{ }^{1}$ |

    (Continued)

    ## 1968

    $\overline{10 / 24}$

    ## TUBING DETAIL (Continued)

    Short String: (Continued)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 15 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | $6502.44{ }^{\prime}$ | $6035.70^{1}$ | $466.74^{1}$ |
    |  | 2-3/8" KBM gas lift mandrel (645\# 185 Diff. KE-I, 1/4" port 10/64) | $6035.70^{1}$ | 6026.29 | $9.41{ }^{1}$ |
    | 52 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | 6026.291 | 4410.191 | 1616.10' |
    |  | 2-3/8" KBM gas lift mandrel (655\# 400 Diff. KE-I, 1/4" port 10/64) | $4410.19^{1}$ | $4400.84^{1}$ | $9.35^{1}$ |
    | 123 | 2-3/8" 4.6\#, J-55, new, National seal-lock tubing | $4400.84{ }^{1}$ | $35.37{ }^{\prime}$ | $4365.47^{1}$ |
    |  | 2-3/8" 4.6\#, J-55, new, National seal-lock pup joints | 35.371 | $21.17^{1}$ | $14.20^{\prime}$ |
    |  | Landing donut | $21.17^{1}$ | $20.00^{1}$ | $1.17^{1}$ |
    |  | Slack in tubing | $20.00^{\prime}$ | $18.80{ }^{\prime}$ | $1.20{ }^{\prime}$ |
    |  | K.B. to Tubing Head | $18.80^{\prime}$ | $0{ }^{1}$ | $18.80^{\prime}$ |
    | 219 |  | Total Tubi | Landed | $7445.59{ }^{\prime}$ |

    10/25 Ran Brown tubing plug on wire line in 2-7/8" tubing to $\mathrm{H}-1$ packer, pressured tubing above plug and set packer at $8402.35^{\prime}$, bottom at $8409.59^{\prime}$. Pulled out. Ran Brown tubing plug in $2-3 / 8^{\prime \prime}$ tubing to $\mathrm{H}-2$ packer, pressured tubing above plug and set dual packer at $7445.59^{\prime}$, bottom at $7451.99^{\prime}$. Pulled out.

    Installed back pressure valves in tubing strings. Removed B.O.P. equipment. Installed Xmas tree and tested with 3000 psi for 30 minutes, O.K. Removed back pressure valves. Ran in with wire line and opened Otis "XO" sliding sleeve in 2-7/8" tubing string. Pulled out. Ran in with wire line and removed valve from gas lift mandrel at $7371.61^{1}$ in $2-3 / 8$ " tubing string. Pulled out. Displaced drilling fluid from hole with lease crude oil by pumping down 2-7/8" tubing and taking returns from casing annulus until oil returned to surface. Closed casing annulus and took returns from 2-3/8" tubing until change over was completed.
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    1968
    10/26 Ran in with wire line and closed Otis "XO" sliding sleeve in 2-7/8" tubing string. Pulled out. Ran in with wire line and set valve in gas lift mandrel at 7371.61 ' in $2-3 / 8$ " tubing string. Installed flow lines, valves, controls, and safety equipment. Released rig at 4:00 arm., October 26, 1968.

    10/27 Shortly after putting both the lower gas zone and the upper oil zone on production, it was apparent that communication existed between the two producing zones around the packer. As the drilling rig had moved and was drilling "West Pico" 20, preventing access to \# 12, the upper zone (oil) was shut-in and the gas zone was put on production.

    Initial Production - Lower Zone:
    13 hours: $484 \mathrm{~B} / \mathrm{D}$ gross oil, $9.7 \%$ cut, $437 \mathrm{~B} / \mathrm{D}$ net oil, 7764 Mcf per day gas, 18/64" bean, Tubing Pressure 1875 psi.

    10/28 thru Well on production.
    $1 / 5 / 1969$
    1969
    1/6 Moved in and rigged up Blackwell \& Sundae, Inc. well servicing rig.
    1/7 Killed well with $78^{\#}$ per cubic foot solids free starch mud. Installed B.O.P. equipment and started pulling 2-3/8" short tubing string.

    1/8 Finished pulling 2-3/8" tubing and laying down gas lift mandrels. Rigged up to pull 2-7/8" tubing. Unable to release Brown Oil Tool "Husky" H-2 packer.

    1/9 Attempted to release packer without success.
    1/10 Rigged up McCullough wireline truck. Ran free point indicator in 2-7/8" tubing but unable to get to bottom because of wax. Ran paraffin knives to 5000'. Ran free point but could not get below 2200'. Backscuttled.

    1/11 Ran smaller McCullough free point indicator to 8400'. Tubing was free to packer at 7446'. Ran McCullough 2-1/8" chemical tubing cutter and shot tubing off at 7419'. Pulled 2-7/8" tubing and laid down gas lift mandrel. Ran Midway Fishing Tool 2-7/8" socket and bumper sub on 2-7/8" tubing.

    1/12 Shut-in - Sunday.

    1969
    1/13 Took hold of fish. Moved fish up hole approximately $6^{\prime}$ and slipped off. Pulled tubing and fishing tools. Found ball of wax or asphalt around socket.

    1/14 Ran one joint of washpipe on 2-7/8" tubing to top of packer. Circulated hole. Used Dowell pump truck to spot 10 barrels of Toluene above packer. Worked washpipe up and down to agitate Tolvene above packer.

    1/15 Circulated mud around and pulled tubing. Laid down washpipe. Ran 2-7/8" socket, hydraulic jars and drill collars on $2-7 / 8^{17}$ tubing. Caught fish and commenced jarring.

    1/16 Jarred on packer without apparent success. Released socket and started out of hole.
    1/17 Finished pulling out of hole. Had not released socket but had recovered 8-5/8" Brown $\mathrm{H}-2$ packer and top half of safety joint. Ran Brown safety joint overshot and bumper sub on 2-7/8" tubing and took hold of fish. Unable to pull fish loose with 110,000\#.

    1/18 Rigged up McCullough wire line truck and ran 2-1/8" chemical tubing cutter but could not get below $8371^{\prime}$. Ran sinker bar, jars and paraffin knife to $8427^{\prime}$. Tools stuck in Otis sliding sleeve at $8371^{1}$. Worked loose and pulled out.

    1/19
    Shut-in - Sunday.
    1/20 Ran McCullough 2-1/8" chemical tubing cutter but could not get below 8371'. Ran $65^{\prime}$ of sinker bars with $2-3 / 16^{\prime \prime}$ gauge bar to 8400 '. Reran $2-1 / 8^{\prime \prime}$ chemical tubing cutter and shot tubing off at $8387^{\prime}$.

    1/21 Pulled tubing. Recovered 30 joints of $2-7 / 8^{\prime \prime}$ tubing plus $20^{\prime}$ cut off. Ran bumper sub, 14' of washpipe and $6-5 / 8^{" ~ p o s i t i v e ~ c a s i n g ~ s c r a p e r ~ o n ~ 2-7 / 8 " ~ t u b i n g . ~ W o r k e d ~}$ over $12^{\prime}$ stub and set on $6-5 / 8^{\prime \prime}$ Brown H-1 packer at $8402^{\prime}$. Used Dowell pump truck to spot 4 barrels of Tolvene above packer.

    Pulled tubing and tools. Ran Midway Fishing Tool Company's 2-7/8"tubing socket, hydraulic jars, bumper sub and $60^{\prime}$ of drill collars and caught fish at $8387^{\prime}$. Jarred and worked fish with $120,000^{\#}$ pull.

    1969
    $1 / 23$

    1/24 Ran bailer and found fill in liner at 8991'. Ran Midway 8-5/8"positive casing scraper to top of liner at 7472'. Pulled out and laid down $8-5 / 8$ " scraper. Ran $5-1 / 4^{\prime \prime}$ bit with Baker $6-5 / 8^{"}$ casing scraper, bumper sub and drill collar on 2-7/8" tubing.

    1/25 Circulated mud from top of liner to remove gas. Ran in to 8904' and circulated to condition mud.

    Shut-in - Sunday.
    1/27 Used Midway's power swivel and cleaned out liner from 8904' to bottom at 9232'.
    1/28 Pulled tubing and laid down tools. Made up 2-7/8" tubing tailpipe and ran Brown Oil Tool 6-5/8" "Husky" $\mathrm{H}-1$ and $8-5 / 8$ " "Husky" $\mathrm{H}-2$ hydraulic packers on 2-7/8" tubing.

    1/31 Flowing both Upper (oil) and Lower (gas) zones to clean up.

    ## 2/1 Initial Production:

    Upper Zone: 6 hours gas lift, 440 B/D gross oil, $2.0 \%$ cut, 431 B/D net oil, 1220 Mcf per day gas, 2831 Gas-Oil Ratio, 40/64" bean, Tubing Pressure 250 psi, Casing Pressure 600 psi.

    1969
    2/5 Initial Production:
    Lower Zone: 4 hours flowed 8908 Mcf per day gas, $344 \mathrm{~B} / \mathrm{D}$ gross oil, $8 \%$ cut, 317 B/D net oil, 28,200 Gas-Oil Ratio, Tubing Pressure 1140 psi.

    2/6 thru Both zones produced normally until March 3, 1969 when $\mathrm{H}-1$ packer failed allowing

    3/3 Moved in and rigged up Blackwell and Sundae, Inc. well servicing rig. Circulated mud to kill well.

    3/4 Removed Xmas tree and installed B.O.P. equipment. Worked 2-3/8" tubing to release from $\mathrm{H}-2$ dual packer. Pulled $2-3 / 8^{\prime \prime}$ tubing and laid down gas lift mandrels. Attempted to release $\mathrm{H}-2$ packer without success.

    Rotated tubing to release packer and pulled to $140,000^{\#}$. Packer pulled loose on second attempt at $130,000^{\#}$. Pulled $2-7 / 8^{\prime \prime}$ tubing and recovered packer. Tubing had backed off at safety joint immediately below $\mathrm{H}-2$ packer. Ran Brown safety joint overshot and caught fish. Pulled $\mathrm{H}-1$ packer loose with $115,000^{\#}$.

    Pulled $2-7 / 8^{11}$ tubing and laid down $\mathrm{H}^{-1}$ packer. Packer failure appeared to be caused by failure of top slips to set properly. No wear or dullness could be noted on the slips. When the differential pressure between gas zone and oil zone became sufficient to move the packer upward, the slips failed to hold and the packing elements ruptured.

    Ran Baker Model "D" 6-5/8" packer on Welex wire line and set packer at 8189'. Picked up 20 joints (611) of 2-3/8" $4.6^{\#}$, J-55, Security flushjoint tubing.

    3/7 Ran 2-3/8" flushjo int tailpipe, Baker seal nipples and locator sub, and Brown Oil Tool "Husky" $\mathrm{H}-2$ packer on $2-7 / 8^{\prime \prime} 6.4^{\#}, \mathrm{~N}-80$, National seal-lock tubing. Landed tubing with tailpipe at 8800', seal nipples in Model "D" packer at $8189^{\prime}$ and $\mathrm{H}-2$ packer, unseated, at $7265^{\prime}$. Ran $2-3 / 8^{\prime \prime} 4.6^{\#}, \mathrm{~J}-55$, National seal-lock tubing equipped with five 2-3/8" Camco "KBM" gas lift mandrels. Spaced out and landed $2-3 / 8^{\prime \prime}$ tubing in $\mathrm{H}-2$ packer at $726^{\prime}$ with gas lift mandrels at 7199', 6847', 6512', $6017^{\prime}$ and 4419'. Removed B.O.P. equipment and installed Xmas tree.

    3/8 Ran Brown Oil Tool setting plug in 2-3/8" tubing with Occidental's wire line equipment. Pressured $2-3 / 8^{\prime \prime}$ tubing to hydraulically set $\mathrm{H}-2$ packer. Unable to retrieve setting plug after setting packer. Dropped McKinley wire line cutter, but failed to cut line. Ran sinker bars and jars on rig sandline. Tagged cutter at 6933' and stuck sandline tools. Unable to free tools. Pulled sandline in two. Removed Xmas tree and installed B.O.P. equipment.

    Shut-in-Sunday.

    3/10
    3/11

    3/12

    Pulled tubing. Reran socket with full opening bumper sub and took hold of fish at $7161^{\prime}$. Ran McCullough chemical tubing cutter on wire line to cut tubing below $\mathrm{H}-2$ packer. Could not get below safety joint immediately below packer. Pulled cutter without shooting. Ran $6^{\prime}$ of 80 grain per foot primer cord shot across packer while pulling $110,000^{\#}$ tension on tubing at the surface. Packer would not pull loose. Ran chemical cutter anc' shot in packer at 7264' in an attempt to cut packer mandrel to reiease packer. Fulled $120,000^{\#}$ on tubing but packer would not move. Shut well in for Sunday with $100,000^{\# \#}$ tension on tubing.

    Shut-in - Sunday.
    3/17 Pulled $125,000^{\#}$ without moving packer. Rotated and worked tubing without success. Ran McCullough chemical cutter and ariempted to cut packer mandrel with no apparent success. Ran another chemical cutter and cut 2-7/8" tubing above packer at 7234'. Recovered $20^{\prime}$ cutoff, one full joint and $10^{\prime}$ cutoff. Ran $14^{\prime}-1-1 / 4^{\prime \prime}$ stinger, equipped with barbs to catch piano wire, on 2-7/8" tubing to top of packer. Rotated and circulated in an attempt to clean debris and wire off packer.

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    3/19 Pulled tubing and recovered $12^{\prime}$ piece of 2-7/8" tubing necked down to uniform $2-3 / 16^{\prime \prime}$ I.D. at break. Ran 2-7/8" tubing socket and full opening bumper sub and took hold of fish at 7246'. Ran McCullough chemical cutter and made third cut in packer mandrel, but would not come loose. Ran another chemical cutter and cut $2-7 / 8^{\prime \prime}$ tubing at $7251^{\prime}$ to obtain full opening clean cut on tubing.

    3/20 Pulled tubing and recovered $5^{\prime}$ of cut off tubing. Ran 2-7/8" tubing socket on $2-7 / 8^{\prime \prime}$ tubing and took hold of fish at $7251^{\prime}$. Ran McCullough chemical cutter and made fourth attempt to cut packer mandrel. Could not pull packer loose.

    3/21 Ran McCullough chemical cutter equipped with $3-1 / 2^{\prime \prime}$ tubing cutting charge and made fifth attempt to cut packer mandrel. Worked pipe with $120,000^{\#}$ pull, but could not pull loose. Released from fish and pulled out of hole. Laid down all fishing tools and all damaged tubing.

    3/22 Ran good 2-7/8" and 2-3/8" tubing back in well. Landed tubing hanging open-ended. Removed B.O.P. equipment and installed Xmas tree. Shut in awaiting drilling rig.

    3/23 Rigged down well servicing rig and moved out.
    3/24 thru Well stood idle.
    3/26
    3/27 Moved drilling rig from "West Pico" 23 and rigged up on "West Pico" 12. Removed Xmas tree and installed B.O.P. equipment.

    3/28 Pulled $2-3 / 8$ " and $2-7 / 8^{"}$ tubing. Ran 2-7/8" overshot with jars and drill collars and took hold of fish at 7253'. Worked and jarred fish.

    3/29 Pulled out with $3^{\prime}$ piece of 2-7/8" tubing. Ran mill socket and milled over 2-7/8" tubing. Pulled out with no recovery. Ran Servco mill and milled on fish from 7257 ' to $7258^{\prime}$. Pulled out.

    Ran impression block. Ran Servco mill and milled from $7258^{\prime}$ to $7259^{\prime}$. Ran socket but could not get over fish. Ran Servco mill and milled from 7259' to 7260'.

    3/31 Ran impression block. Reran socket but could not get over fish. Ran 4-1/4" mill with 4" grapple socket. Took hold of fish.

    4/1 Pulled out with no recovery. Ran 3-3/4" socket and took hold of fish. Jarred and pulled on fish. Pulled off with no recovery. Ran washover pipe and shoe. Circulated and conditioned mud to increase viscosity. Milled over fish from $7259^{\prime}$ to $7263^{\prime}$.

    4/2 Ran washover mill and washed over junk. Mill torqueing up. Could not mill below 7263'. Ran Cavins junk snatcher. Opened hydrostatic junk snatcher and pulled out. Ran 3-1/2" grapple overshot.

    4/3 No recovery with overshot. Ran washover shoe but could not go below 7263'. Ran 7-5/8" Servco concave mill and junk sub. Milled from 7258' to 7263'.

    4/4 Ran Cavins hydrostatic junk snatcher twice with good recovery each time.
    4/5 Ran Cavins junk snatcher twice and cleaned off top of fish. Ran washover mill and milled from 7262' to 7265'. Changed washover mills.

    4/6 Milled over packer from 7265' to $7267^{\prime}$.
    4/7 Ran die collar and worked over fish. Pulled $20,000^{\#}$ and stripped off fish. Reran die collar and pulled off again with $15,000^{\#}$ pull. Ran $7-5 / 8^{" 1}$ washover mill and milled approximately $4^{\prime \prime}$ before torqueing up. Pulled out.

    Reran washover shoe and milled from $7267^{\prime}$ to $7269^{\prime}$. Pulled out recovering $\mathrm{H}-2$ packer and 29 joints of $2-7 / 8^{\prime \prime}$ tubing with Baker seal nipple assembly but left 20 joints (592') of 2-3/8" $4.6^{\#}, \mathrm{~J}-55$, Security flushjoint tubing in hole below Baker Model "D" packer.

    Ran 5-1/2" magnet and recovered small pieces of metal on top of Baker Model "D" packer at 8171'* Ran open-ended drill pipe to $8170^{\prime}$ and backscuttled to clean hole. Ran bit and casing scraper and cleaned $8-5 / 8^{\prime \prime}$ casing. Ran $8-5 / 8^{\prime \prime}$ Halliburton packer on drill pipe. Set packer at $7350^{\prime}$ and pressure tested casing above packer with 1000 psi for 15 minutes without loss. (*Found packer at $8171^{\prime}$ instead of $8189^{\prime}$.)

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    4/11 Ran 2-7/8" tubing stinger on drill pipe and stabbed into Model "D" packer at 8171'.* Pulled out. Ran casing scraper to top of liner. Circulated and conditioned mud. Ran 6-5/8" Otis Perma-trieve packer on Welex wireline and set at $8166^{\prime}$ immediately above damaged Model "D" at $8171^{\prime}$. (*Packer found at $8171^{\prime}$ instead of $8189^{\prime}$.)

    4/12 Ran one joint of 2-3/8" 4.6\#, J-55, National seal-lock tubing stinger, Otis seal nipple assembly, Otis 2-7/8" Type "XO" sliding sleeve, Brown Oil Tool 2-7/8" "CC" safety joint and Otis $8-5 / 8$ " Type "RDH" dual packer on 236 joints of 2-7/8" 6.4 \# , N-80, National seal-lock tubing and landed with tailpipe at 8198.69 ', seal nipple in packer at 8166', "XO" sleeve at 8125.71', safety joint at 7354.05' and "RDH" packer at $7343.22^{\text {r }}$.

    Ran 2-3/8" 4.6\#, J-55, National seal-lock tubing with six Camco "KBM" gas lift mandrels and Merla gas lift valves and landed in "RDH" packer at $7343.22^{\prime}$ with mandrels $2723.64^{\prime}, 4500.92^{\prime}, 5594.18^{\prime}, 6377.42^{\prime}, 6976.59^{\prime}$ and $7296.81^{\prime}$.

    ## TUBING DETAIL

    Long String: (Gas Zone)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 1 | 2-3/8" $4.6^{\text {\# }}, \mathrm{J}-55$, National seallock tubing with bottom $1 / 2$ ' perforated and bullnosed | 8198.69 | $8168.40^{1}$ | 30.291 |
    |  | 2-3/8" National seal-lock $\times 2-3 / 8$ " <br> E.U. 8 round thread crossover | $8168.40^{\prime}$ | $8167.75{ }^{\text {' }}$ | .65' |
    |  | Otis sealing assembly for Perma-trieve packer ( 5 ' seals) | $8167.75^{1}$ | $8161.16^{\prime}$ | $6.59{ }^{1}$ |
    |  | 2-7/8"E.U. 8 round thread $\times 2-7 / 8$ " <br> National seal-lock crossover | $8161.16^{1}$ | $8160.00^{1}$ | $1.16^{1}$ |
    | 1 | 2-7/8" 6.4 \# , N-80, National seallock tubing | $8160.0{ }^{\prime}$ | $8129.73^{\prime}$ | $30.27^{1}$ |
    |  | 2-7/8" National seal-lock $\times 2-7 / 8^{\prime \prime}$ <br> E.U. 8 round thread crossover | $8129.73^{1}$ | $8128.73^{1}$ | 1.001 |
    |  | Otis Type "XO" sliding sleeve valve | $8128.73^{1}$ | 8125.71 | $3.02{ }^{\text {P }}$ |
    |  | 2-7/8"E.U. 8 round thread $\times 2-7 / 8$ " National seal-lock crossover | 8125.71 | 8124.44' | $1.2{ }^{1}$ |
    | 25 | $2-7 / 8^{\prime \prime} 6.4^{\prime \prime}, N-80$, National seallock tubing | 8124.44 | $7356.06^{1}$ | $768.38{ }^{1}$ |

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    ## TUBING DETAIL (Continued)

    Long String: (Continued)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    |  | 2-7/8" National seal-lock $\times 2-7 / 8^{\prime \prime}$ <br> E.U. 8 round thread crossover | $7356.06^{\prime}$ | $7355.48{ }^{\prime}$ | .58' |
    |  | Brown Oil Tools "CC" safety joint | $7355.48{ }^{\prime}$ | $7354.05{ }^{\prime}$ | $1.43{ }^{\prime}$ |
    |  | 2-7/8" E.U. 8 round thread pup joint | 7354.05! | $7349.77{ }^{\prime}$ | $4.28{ }^{\prime}$ |
    |  | Otis $8-5 / 8$ " "RDH" $2-7 / 8 " \times 2-3 / 8 "$ hydraulic dual packer | $7349.7{ }^{\prime}$ | $7343.22{ }^{\prime}$ | 6.55 ! |
    |  | 2-7/8"E.U. 8 round thread $\times 2-7 / 8^{\prime \prime}$ National seal-lock pup joint crossover | $7343.22{ }^{\prime}$ | $7340.2{ }^{\prime}$ | $2.95{ }^{\prime}$ |
    | 236 | 2-7/8" $6.4^{\#}, N-80$, National seallock tubing | $7340.27^{\circ}$ | $75.55{ }^{\prime}$ | 7264.72 |
    |  | 2-7/8" $6.4^{\text {I }}, \mathrm{N}-80$, National seallock pup joint | $75.55{ }^{\prime}$ | $67.39^{1}$ | $8.16^{1}$ |
    |  | 2-7/8" $6.4^{\text {\# }}, \mathrm{N}-80$, National seallock pup ioint | $67.39{ }^{1}$ | $65.24^{1}$ | $2.15{ }^{1}$ |
    |  | 2-7/8" $6.4^{\text {\# }}, ~ N-80$, National seallock pup joint | $65.24{ }^{1}$ | $61.08{ }^{\prime}$ | $4.16^{1}$ |
    |  | 2-7/8" $6.4^{\text {tit }}, \mathrm{N}-80$, National seallock pup joint | $61.08{ }^{1}$ | $50.93{ }^{\prime}$ | $10.15{ }^{\text {' }}$ |
    | 1 | 2-7/8" $6.4^{\text {\# }}, ~ N-80$, National seallock tubing | $50.93{ }^{1}$ | $20.50{ }^{\prime}$ | $30.43{ }^{\prime}$ |
    |  | O.C.T. tubing hanger | $20.50{ }^{\prime}$ | $20.00^{\prime}$ | .50' |
    |  | K.B. to Tubing Head | $20.00^{\prime}$ | $0^{\prime}$ | $20.00^{\prime}$ |
    | 264 |  | Total Tubi | Landed | $8198.69{ }^{1}$ |

    Short String: (Oil Zone)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 1 | Otis 2-3/8" Collet type latch stab-in | $7343.22^{\prime}$ | $7338.22^{\prime}$ | $5.00{ }^{\prime}$ |
    |  | $2-3 / 8^{\prime \prime}$ E.U. 8 round thread $\times 2-3 / 8$ " National seal-lock crossover | 7338.22' | $7337.15^{1}$ | $1.07{ }^{1}$ |
    |  | 2-3/8" 4.6\#, J-55, National seallock tubing | 7337.151 | $7306.21{ }^{1}$ | $30.94^{1}$ |
    |  | 2-3/8" KBM mandrel with Merla valve \#6 | $7306.21{ }^{1}$ | $7296.81{ }^{1}$ | $9.40{ }^{1}$ |
    | 10 | 2-3/8" 4.6\#, J-55, National seallock tubing | $7296.81^{1}$ | 6985.85' | $310.96{ }^{1}$ |

    (Continued)
    (Continued)

    ## TUBING DETAIL (Continued)

    Short String: (Continued)

    | Joints | Description | From | To | Footage |
    | :---: | :---: | :---: | :---: | :---: |
    | 19 | 2-3/8" KBM mandrel with Merla valve \#5 | $6985.85{ }^{1}$ | 6976.59 | $9.26{ }^{1}$ |
    |  | 2-3/8" 4.6\#, J-55, National seallock tubing | $6976.59^{1}$ | 6386.79' | $589.80^{1}$ |
    |  | 2-3/8" KBM mandrel with Merla valve \#4 | $6386.79^{1}$ | $6377.42^{\prime}$ | $9.37^{1}$ |
    | 25 | 2-3/8"4.6\#, J-55, National seallock tubing | $6377.42^{\prime}$ | $5603.48{ }^{1}$ | $773.94{ }^{1}$ |
    |  | 2-3/8" KBM mandrel with Merla \#3 | $5603.48^{\prime}$ | 5594.18' | 9.301 |
    | 35 | 2-3/8" 4.6\#, J-55, National seallock tubing | 5594.18' | $4510.29^{1}$ | $1083.89^{1}$ |
    |  | 2-3/8" KBM mandrel with Merla valve \#2 | $4510.29^{1}$ | 4500.92' | 9.371 |
    | 57 | 2-3/8" 4.6\#, J-55, National seallock tubing | $4500.92^{\prime}$ | 2732.98 ${ }^{1}$ | $1767.94{ }^{1}$ |
    |  | 2-3/8" KBM mandrel with Merla valve \#1 | $2732.98{ }^{\prime}$ | 2723.64' | $9.34{ }^{1}$ |
    | 86 | 2-3/8" 4.6\#, J-55, National seallock tubing | $2723.64{ }^{\prime}$ | $55.04{ }^{\prime}$ | $2668.60{ }^{\text {1 }}$ |
    |  | 2-3/8" 4.6", J-55, National seallock tubing pup joint | $55.04{ }^{\prime}$ | $53.97{ }^{1}$ | $1.07{ }^{1}$ |
    |  | 2-3/8" 4.6", J-55, National seallock tubing pup joint | $53.97{ }^{1}$ | $47.91{ }^{1}$ | $6.06{ }^{1}$ |
    | 1 | 2-3/8" 4.6", J-55, National seallock tubing | $47.91{ }^{1}$ | $16.39^{1}$ | $31.52^{\prime}$ |
    |  | O.C.T. tubing hanger | 16.39 ${ }^{\prime}$ | $15.89{ }^{1}$ | .50' |
    |  | Slack in tubing | $15.89{ }^{\prime}$ | $20.00^{\prime}$ | (-4.11) |
    |  | K.B. to Tubing Head | $20.00^{\prime}$ | $0^{1}$ | $20.00^{\prime}$ |
    | 234 |  | Total Tubi | Landed | $7343.22^{\prime}$ |

    Tubing was tested to $4000 \pm$ psi with Delta External Hydraulic Tester.
    (Note: Short string below packer as follows - bottom to top:
    Perforated and bullnosed pup joint (2-3/8') - 1.75'
    Otis ball catcher sub - . $35^{\prime}$
    "N"nipple - .64'
    $2-3 / 8^{\prime \prime} \times 2-7 / 8^{\prime \prime}$ E.U. 8 round - . $48^{\prime}$
    thread crossover)

    OCCIDENTAL PETROLEUM CORPORATION
    "West Pico" 12 - Redrill \#1
    Section 30, T. 1 S., R. 14 W., S.B.B.\& M.
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    $4 / 12$
    (Continued)
    Removed B.O.P. equipment and installed Xmas tree.
    4/13 Displaced drilling mud from hole with lease crude oil. Dropped ball into 2-3/8" tubing to hydraulically set "RDH" packer. Unable to set as $2-3 / 8$ " was not stabbed into "RDH" packer properly. Displaced oil from hole with mud. Removed Xmas tree and installed B.O.P. equipment. Restabbed $2-3 / 8$ " string into "RDH" packer and pressure tested with 500 psi. Removed B.O.P. equipment and installed Xmas tree.

    4/14 Set "RDH" packer with hydraulic pressure. Ran wireline and closed "XO" sliding sleeve at $8126^{\prime}$. Displaced mud from well with lease crude.

    4/15 Well on production at 2:30 a.m., April 15, 1969.
    Production Tests:
    Upper Zone: 4 hours flowing, 48/64" bean, 351 B/D gross oil, 3.4\% cut, $339 \mathrm{~B} / \mathrm{D}$ net oil, $961 \mathrm{Mcf} / \mathrm{D}$ gas, 2835 Gas-Oil Ratio, Tubing Pressure 480 psi, Casing Pressure $700 \mathrm{psi}, 29.7^{\circ}$ gravity .

    Lower Zone: 4 hours flowing, 48/64" bean, 7332 Mcf/D gas, Tubing Pressure 1325 psi, Casing Pressure 700 psi.

    5/13 Production After 28 Days:
    Upper Zone: 24 hours flowing, $48 / 64^{\prime \prime}$ bean, $326 \mathrm{~B} / \mathrm{D}$ gross oil, $0.6 \%$ cut, $324 \mathrm{~B} / \mathrm{D}$ net oil, $27.0^{\circ}$ gravity, $366 \mathrm{Mcf} / \mathrm{D}$ gas, Tubing Pressure 175 psi , 1130 Gas-Oil Ratio.

    Lower Zone: 24 hours flowing, $48 / 64$ " bean, $7287 \mathrm{Mcf} / \mathrm{D}$ gas, Tubing Pressure 1200 psi, Packer.
    ELL NO. "West Pico" 12 -Redrill \# 1

    ECTION 30 , T. 1 S._, R. 14 W., S.B. B. \& M.
    field Beverly Hills
    COUNTY
    Los Angeles

    | DATE | DEPTH |  | $\begin{gathered} \text { WEIGHT } \\ \text { LBS./CU. FT. } \end{gathered}$ |  | VISCOSITYSECONDS |  | WATER LOSS CC/30 MINUTES |  | $\begin{gathered} \hline \text { SAND } \\ \% \end{gathered}$ |  | pH | $\begin{aligned} & \text { SALINITY } \\ & \text { G/G } \\ & \hline \end{aligned}$ | FILTER CAKEINCHES $/ 32$ | $\begin{gathered} \text { OIL } \\ \% \\ \hline \end{gathered}$ |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    |  | FROM | T0 | LOW | HIGH | LOW | HIGH | LOW | HIGH | LOW | HIGH |  |  |  |  |
    | 9-7-68 | -- | 8200 | -- | 74 | -- | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
    | $9-9-68$ | -- | 8200 | -- | 74 | -- | 36 | -- | 4.0 | -- | Trace | 7.0 | 16,300 | Film | 12.0 |
    | 9-10-68 | -- | 8200 | -- | 74 | -- | 40 | -- | 2.8 | -- | Trace | 7.0 | 17,800 | Film | 10 |
    | 9-11-68 | -- | 8200 | 74 | 75 | -- | 35 | -- | 2.5 | -- | Trace | 7.0 | 17,500 | Film | 8.0 |
    | $\frac{\text { REDRILL }}{9-17-68}$ | 7522 | 7590 | -- | 75 | -- | 37 | -- | 3.6 | -- | Trace | 7.0 | 17.500 | Film | 8.0 |
    | 9-13-68 | 7590 | 7655 | -- | 75 | -- | 37 | -- | 3.6 | -- | Trace | 7.0 | 12,000 | Film | 8.0 |
    | 9-14-68 | -- | 7655 | -- | 75.5 | -- | 41 | -- | 3.2 | -- | Trace | 7.0 | 15,000 | Film | 8.0 |
    | 9-15-68 | 7655 | 7810 | 74 | 75 | 40 | 60 | -- | 3.0 | -- | Trace | 7.0 | 15,000 | Film | 5.0 |
    | 9-16-68 | 7810 | 7895 | -- | 75 | 40 | 65 | -- | 3.0 | -- | Trace | 7.5 | 13,000 | Film | 8.0 |
    | 9-17-68 | 7895. | 8021 | -- | 75 | 40 | 45 | -- | 3.5 | -- | Trace | 7.5 | 12,500 | Film | 8.0 |
    | 9-18-68 | 8021 | 8160 | -- | 75 | 45 | 46 | -- | 3.4 | -- | Trace | 7.5 | 12,500 | Film | 8.0 |
    | 9-19-68 | 8160 | 8333 | 75 | 76.5 | 45 | 46 | -- | 3.0 | -- | Trace | 7.5 | 12,500 | 1 | 8.0 |
    | 9-20-68 | 8333 | 8568 | 76 | 76.5 | 45 | 50 | -- | 3.5 | -- | Trace | 7.5 | 12,500 | 1 | 13.0 |
    | 9-21-68 | 8568 | 8677 | 75 | 76 | 45 | 50 | -- | 3.4 | -- | Trace | 7.5 | 12,000 | 1 | 10.0 |
    | 9-22-68 | 8677 | 8800 | -- | 75 | 46 | 48 | -- | 3.5 | -- | Trace | 7.0 | 12,000 | 1 | 9.0 |
    | 9-23-68 | 8800 | 8898 | -- | 75 | 46 | 47 | -- | 3.0 | -- | Trace | 7.0 | 12,000 | 1 | 10 |
    | 9-24-68 | 8898 | 8998 | 75 | 76 | 45 | 46 | -- | 2.0 | -- | Trace | 7.0 | 11,500 | Film | 8. |
    | 9-25-68 | 8998 | 9052 | -- | 76 | -- | 46 | -- | 2.0 | -- | Trace | 7.0 | 10,000 | 1 | 8.0 |
    | 9-26-68 | 9052 | 9156 | -- | 76 | 47 | 48 | -- | 2.6 | -- | Trace | 7.0 | 10,000 | 1 | 10.0 |
    | 9-27-68 | 9156 | 9250 | 76 | 77 | 43 | 46 | -- | 2.6 | -- | Trace | 7.0 | 10,000 | Film | 10.0 |
    | 9-28-68 | -- | 9250 | -- | 77 | 45 | 46 | -- | 3.2 | -- | Trace | 7.0 | 9,500 | Film | 9.0 |
    | 9-29-68 | -- | 9250 | -- | 77 | -- | 46 | -- | 3.0 | -- | Trace | 7.0 | 9,500 | Film | 7.0 |
    | 9-30-68 | -- | 9250 | -- | 76 | -- | 50 | -- | 3.0 | -- | Trace | 7.0 | 10,500 | 1 | 8.0 |
    | 10-1-68 | -- | 9250 | -- | 77 | 45 | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
    | 10-2-68 | -- | 9250 | -- | 77 | 45 | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
    | 10-3-68 | -- | 9250 | -- | 77 | 45 | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
    | 10-5-68 | -- | 9250 | -- | 77 | 45 | 47 | -- | 4.0 | -- | Trace | 7.0 | 10,500 | -- | 7.0 |

    

    | Vell No. "West Pico" $12-$ Redrill \#1 | Field |
    | :--- | :--- |
    | ection 30 , T. 1 S. , R. 14 W, S.B. B. $\& \mathrm{M}$. | County Hills |


    | Date | No.Run | Size | Make | Type | Regular | Jet Sizes | From | To | Footage | Hours Run | Condition |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 9-10-68 | H.O. 1 | 12" | Hole Opener |  |  |  | 7512 | 7572 | 60 |  | Opened hole. |
    | $9-11-68$ | 1 | 7-5/8" | Globe | SS3J |  | 1/2" (3) | 7513 | 7522 | 9 | 1/2 | Drilled out cement plug. |
    | 9-12-68 | $2^{18}$ | 7-5/8 $7-5$ | Globe Globe | Ss3J |  | $1 / 2^{\prime \prime}(3)$ | 7590 | 7565 | 68 | 2-3/4 | Medium dull |
    | 9-14-68 | 3 | 7-5/8" | Globe | SS3J |  | $1 / 2^{\prime \prime}$ (3) | 7655 | 7655 | 0 | Locked co | ne. |
    | 9-15-68 | 4 | 7-5/8" | Globe | SS3J |  | 1/2" (3) | 7655 | 7687 | 32 | 1-1/4 | Good |
    | 9-16-68 | 2 RR | 7-5/8" | Globe | S53J |  | 1/2" (3) | 7687 | 7810 | 123 | - |  |
    | 9-16-68 | 5 | 7-5/8" | Globe | S53J |  | 1/2" (3) | 7810 | 7895 | 85 | 7 | Dull |
    | 9-17-68 | 6 | 7-5/8" | Reed | YT3J |  | 1/2" (3) | 7895 | 8021 | 126 | 9 | Dull |
    | 9-18-68 | 7 | 7-5/8" | Security | S3TJ |  | 1/2" (3) | 8021 | 8160 | 139 | 5-1/4 | Dull |
    | 9-19-68 | 8 | 7-5/8" | Hughes | OSC3J |  | 1/2" (3) | 8160 | 8328 | 168 | 7-1/2 | Dull |
    | 9-20-68 | 9 | 7-5/8" | Smith | DTJ |  | 1/2" (3) | 8328 | 8568 | 240 | 16 | Dull |
    | 9-21-68 | 10 | 7-5/8" | Globe | S53J |  | 1/2" (3) | 8568 | 8646 | 78 | 6-1/4 | Dull |
    | 9-22-68 | 11 | 7-5/8" | Security | S4TJ |  | 1/2" (3) | 8646 | 8713 | 67 | 6-1/2 | Dull |
    | 9-23-68 | 12 | 7-5/8" | Hughes | OSC-1GJ |  | $1 / 2^{\prime \prime}$ (3) | 8713 | 8832 | 119 | 8-1/4 | Dull |
    | 9-23-68 | 13 | 7-5/8" | Security | S4TJ |  | 1/2" (3) | 8832 | 8898 | 66 | 8-1/4 | Dull |
    | 9-24-68 | 14 | 7-5/8" | Smith | DTJ |  | 1/2" (3) | 8898 | 8998 | 100 | 12-3/4 | Dull |
    | 9-26-68 | 15 | 7-5/8" | Globe | ST3J |  | 1/2" (3) | 8998 | 9068 | 70 | 11-1/2 | Dull |
    | 9-27-68 | 16 | 7-5/8" | Hughes | OSC3J |  | 1/2" (3) | 9068 | 9177 | 109 | 13-1/2 | Dull |
    | 9-28-68 | 17 | 7-5/8" | Reed | YT3J |  | 1/2" (3) | 9177 | 9250 | 73 | 11-1/2 | Dull |
    | 9-29-68 | 17 RR | 7-5/8" | Reed w/Security | YT3J |  | 1/2" (3) | 7512 | 9250 | 1738 |  | Reamed hole and circulate and conditioned mud. |
    | $\begin{aligned} & 10-1-68 \\ & 10-3-68 \end{aligned}$ | Mill ${ }^{18} 1$ | $\begin{aligned} & 5-5 / 8 " \\ & 5-5 / 8 " \end{aligned}$ | Hughes <br> Baash-Ross | --point reamer |  | 1/2" (3) | $\begin{aligned} & 7472 \\ & 8307 \end{aligned}$ | $\begin{aligned} & 7502 \\ & 8307 \end{aligned}$ | 30 0 | Drilled or | and conditioned mud. <br> t cement. <br> Milled on fish. |

    Well No. "West Pico" 12 - Redrill \# 1
    Section 30 , T. 1 S., R. $14 \mathrm{~W}, ~ S . B$. B.\&M.

    Field $\qquad$
    County $\qquad$

    | Date | No.Run | Size | Make | Type | Regular | Jet Sizes | From | To | Footage | Hours Run | Condition |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 10-4-68 | 19 | 5-5/8" | Hughes w/6-1/4" B | OSC-1G <br> scraper |  |  | 8368 | 8416 | 48 | Drilled ou cleaned | t plug, float collar and out. Circulated. |
    | 10-5-68 | 18 RR | 5-5/8" | Hughes | OSC-1G |  | 1/2" (3) | Locate | top of ce |  |  | rculated and condi, ed |
    | 10-8-68 | 20 | 5-5/8" | Reed | YTL | Regular |  | 8320 | 8340 | 20 |  | mud. <br> Drilled out retainer and |
    | 10-9-68 | 21 | 5-5/8" | Hughes | OSC-1G | Regular |  | 8250 | 8380 | 130 |  | cleaned out. Drilled out retainer, |
    | 10-11-68 | 22 | 5-5/8" | Hughes | OSC-1G | Regular |  | 7690 | 8380 | 690 |  | cement and cleaned out Drilled out retainer, |
    | N |  |  |  |  |  |  |  |  |  |  | cleaned out and circula and conditioned mud. |
    | (10-12-68 | 22 RR | 5-5/8" | Hughes with scraper | OSC-1G | Regular |  | 7512 | 8318 | 806 | Scraped s | ot holes and cleaned out |
    | 10-15-68 | Mill \#2 | $\left\|\begin{array}{r} 5-1 / 2 \prime \prime \\ \times 3-5 / 8 " 1 \end{array}\right\|$ | Midway | Mill |  |  | 7975 | 7975-1/2 | / 1/2 | 3 | Milled on fish |
    | 10-15-68 | Mill \#3 | $\begin{array}{r} 5-1 / 2 \\ \times 3-5 / 8 \end{array}$ | Midway | Mill |  |  | 7975 | 7975 | 0 | 2 | Milled on fish. Did not |
    | 10-17-68 | Mill \#4 | + $5-1 / 2^{\prime \prime}$ | Junk Mill |  |  |  | Milled | on fish at | $7975{ }^{\text {' }}$ |  | , |
    | 10-18-68 | Mill \#5 | 5-1/2" | Junk Mill |  |  |  | Milled | on fish at | $7980^{\circ}$. |  |  |
    | 10-18-68 | Mill \#6 | 5-1/2" | Junk Mill |  |  |  | Milled | on fish at 7 | $7980{ }^{\prime}$. |  |  |
    | 10-19-68 | 23 | 5-5/8 ${ }^{\prime \prime}$ | Hughes | OSC-1G | Regular |  | 8380 | 8383 | 3 | Cleaned circulated | ut, drilled on retainer an and conditioned mud. |
    | 10-20-68 | 23 RR | 5-5/8 ${ }^{\prime \prime}$ | Hughes | OSC-1G | Regular |  | 8383 | 8384 | 1 | 5 | Drilled on retainer. |
    | 10-20-68 | 24 | 5-5/8" | Hughes | OSC-1G | Regular |  | 8384 | 8385 | 1 | 5-1/2 | Drilled on retainer. |
    | 10-20-68 | 25 | 5-5/8 " | Smith | V2 | Regular |  | 8385 | 8410 | 25 | 5 | Drilled on retainer \& jur |
    | 10-21-68 | 26 | 5-5/8" | Reed | YTL | Regular |  | 8410 | 8411 | 1 | 6-1/4 | Drilled on retainer \& jur |
    | 10-21-68 | 27 | 5-5/8" | Smith | V2 | Regular |  | 8411 | 8412 | 1 | 7 | Drilled on retainer \& jur |
    | 10-22-68 | 28 | 5-5/8" | Hughes | OWC | Regular |  | 8412 | 9232 | 820 | Drilled on out port o circulated | retainer and junk, drille ollar, cleaned out and and conditioned mud. |

    Vell No. $\qquad$ ection 30 , T. 1 S., R. $14 \mathrm{~W} .$, S.B。B.\&M.

    Field $\qquad$
    County Los Angeles
    
    

    ## OCCIDENTAL PETROLEUM CORP

    ```
    WELL NUMBER W-P12RDI (037-20/46)
    DIRECTIONAL SURVEY DATA
    START DATE \(10 / 16 / 68\)
    ```

    K.B. ELEVATION 183.50
    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$

    | MEASURED DEPTH | COURSE <br> LENGTH | DRIFT <br> ANGLE | V ER T COURSE | I C AL total | $\begin{array}{llll} \text { D E P T H } \\ \text { SUB SEA } \end{array}$ | $\begin{aligned} & \text { DEVI } \\ & \text { COURSE } \end{aligned}$ | ATION BEARING | $\begin{gathered} \text { TOT } \\ \text { NORTH } \end{gathered}$ | $\begin{array}{lll} \text { A L COUTH } \\ \text { SOU } \end{array}$ | $\begin{array}{ll} \text { RDIN AT ESS } \\ \text { EAST } \end{array}$ | TOTAL DISTANCE IN SECTION | $\begin{aligned} & \text { READING } \\ & \text { DATE } \end{aligned}$ |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | $\begin{gathered} 9,230 \\ 9232 \\ 9,240 \end{gathered}$ | 53 63 | 0245 | 63.06 62.93 | 7.789 .50 $7,799.49$ | $7,606.00-$ $7,615.99-$ | 3.48 3.02 | N15 00E | $1,101.18$ $1,101.65$ | $1100,3626$ | $\begin{aligned} & 3,626.00 \\ & N 4,133,723.24 \\ & 3,626.13 \end{aligned}$ | $\text { E } 4,173,278.77$ |  |
    | 9.25010 | 10 | 0245 | 9.99 | 7,809.48 | 7.625.98- | . 48 | N15 00E | 1,102.11 |  | $\begin{aligned} & N 4,133,723.71 \\ & 3,626.25 \\ & N 4,133,724.17 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,278.90 \\ 1,136.67- \\ \text { E } 4,173,279.02 \end{array}$ | 10/16/68 |

    CLOSURE $3,790.03$ N73 OOE
    BOTTOM HOLE LAMBERT COORDINATES N $4,133,724.17$ E 4,173,279.02
    FINISH DATE $10 / 16 / 68$
    4
    K.B. ELEVATION 183.50

    LAMBERT COORDINATES N 4,132,622.06 E 4,169,652.77

    | MEASURED COURSE DRIFT VER T I C A L D E P T H |  |  |  |
    | :---: | :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- |
    | DEPTH LENGTH ANGLE COURSE |  | TOTAL | SUB SEA | COMPLETED WELLS


    | 9,030 9,040 | 32 42 |  | 54.32 58.31 | $7,590.40$ $7,600.32$ | $7,406.90-$ $7,416.82-$ | 7.17 7.53 |  | $1,084.77$ $1,085.87$ | $\begin{aligned} & 3,618.42 \\ & N 4,133,706.83 \\ & 3,618.94 \end{aligned}$ | $\text { E } \begin{array}{r} 1,119.33- \\ 173,271.19 \\ 1,120.43- \end{array}$ | 1 | $1$ |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 9,050 | 52 |  | 62.30 | 7,610.25 | 7,426.75- | 7.88 |  | 1,086.98 | $\begin{aligned} & N 4,133,707.93 \\ & 3,619.45 \\ & N 4,133,709.04 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,271.71 \\ \text { E } 4,173,21.54- \\ 1,272.22 \end{array}$ | 1 | / |
    | 9.060 | 62 |  | 66.29 | 7,620.17 | 7,436.67- | 8.24 |  | 1,088.08 | $\begin{aligned} & 3,619.96 \\ & N 4,133,710.14 \end{aligned}$ | $\text { E } \begin{array}{r} 1,122.64- \\ \hline, 173,272.73 \end{array}$ | 1 | 1 |
    | 9,068 | 70 | 0700 | 69.48 | 7,628.12 | 7.444.62- | 8.53 | N25 00E | 1,088.97 | 3,620.38 | E 1,123.53- | $10 / 1$ | $6 / 68$ |
    | 9,070 | 2 |  | 68.38 | 7,630.10 | 7.446.60- | 8.38 |  | 1,089.17 | $\begin{aligned} & N 4,133,711.03 \\ & 3,620.48 \\ & N 4,133,711.23 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,273.15 \\ \text { E } 4,173,23.73- \\ 1,123.25 \end{array}$ | 1 | / |
    | 9,080 | 12 |  | 62.88 | 7,640.04 | 7.456.54- | 7.62 |  | 1,090.18 | $\begin{aligned} & 3,620.99 \\ & \mathrm{~N} 4,133,712.24 \end{aligned}$ | $\text { E } 4,173,124.74-$ | 1 | 1 |
    | 9,090 | 22 |  | 57.38 | 7.649.97 | 7.466.47- | 6.85 |  | 1,091.18 | $\begin{aligned} & 3,621.50 \\ & N 4,133,713.24 \end{aligned}$ | $\text { E } 4,173,274.27$ | 1 | 1 |
    | 9,100 | 32 |  | 51.87 | 7,659.91 | 7,476.41- | 6.09 |  | 1,092.19 | $\begin{aligned} & 3,622.02 \\ & N 4,133,714.25 \end{aligned}$ | $\text { E } 4,173,274.79$ | 1 | 1 |
    | 9.110 | 42 |  | 46.37 | 7.669.84 | 7,486.34- | 5.32 |  | 1,093.20 | $\begin{aligned} & 3,622.53 \\ & \mathrm{~N} 4,133,715.26 \end{aligned}$ | $\text { E } 4,173,275.30$ | 1 | 1 |
    | 9,113 | 45 | 0630 | 44.71 | 7.672.83 | 7,489.33- | 5.09 | N27 OOE | 1,093.51 | $\begin{aligned} & 3,622.69 \\ & N \quad 4,133,715.57 \end{aligned}$ | $\text { E } 4,173,275.46$ | 10/1 | 6/68 |
    | 9,120 | 7 |  | 46.79 | 7,679.80 | 7,496.30- | 5.17 |  | 1,094.08 | $\begin{aligned} & 3,622.98 \\ & N 4,133,716.14 \end{aligned}$ | $\text { E } 4,173,275.75$ | 1 | , |
    | 9.130 | 17 |  | 49.76 | 7,689.75 | 7.506.25- | 5.29 |  | 1,094.89 | $\begin{aligned} & 3,623.39 \\ & \mathrm{~N} 4,133,716.95 \end{aligned}$ | $\text { E } 4,173,276.16$ | 1 | 1 |
    | 9,140 | 27 |  | 52.73 | 7,699.71 | 7,516.21- | 5.41 |  | 1,095.71 | 3,623.81 ${ }^{\text {N }}$, 133 | E 1,130.27- | 1 | 1 |
    | 9,150 | 37 |  | 55.70 | 7,709.67 | 7,526.17- | 5.53 |  | 1,096.52 | $\begin{aligned} & N 4,133,717.77 \\ & 3,624.22 \\ & N 4,133,718.58 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,276.58 \\ \text { E } 4,1731.08-276.99 \end{array}$ | 1 | 1 |
    | 9,160 | 47 |  | 58.67 | 7,719.63 | 7.536.13- | 5.65 |  | 1.097.34 | $\begin{aligned} & 3,624.64 \\ & \mathrm{~N} 4,133,719.40 \end{aligned}$ | $\text { E } 4,173,277,41$ | 1 | 1 |
    | 9,170 | 57 |  | 61.64 | 7,729.58 | 7.546.08- | 5.77 |  | 1,098.15 | $\begin{aligned} & 3,625.05 \\ & N \quad 4,133,720.21 \end{aligned}$ | $\text { E } 4,173,277.82$ | 1 | , |
    | 9,177 | 64 | 0515 | 63.73 | 7,736.56 | 7,553.06- | 5.86 | N27 00E | 1,098.73 | $\begin{aligned} & 3,625.35 \\ & N 4,133,720.79 \end{aligned}$ | $\begin{array}{r} 1,133.29- \\ \text { E } 4,173,278.12 \end{array}$ | $10 / 1$ | 6/68 |
    | 9,180 | 3 |  | 63.70 | 7,739.55 | 7.556.05- | 5.73 |  | 1,098.86 | $\begin{aligned} & 3,625.38 \\ & \mathrm{~N} 4,133,720.92 \end{aligned}$ | $\text { E } 4,173,278.15$ | 1 | 1 |
    | 9,190 | 13 |  | 63.57 | 7,749.54 | 7.566.04- | 5.28 |  | 1,099.33 | 3,625.51 | 1,133.89- | 1 | 1 |
    | 9,200 | 23 |  | 63.44 | 7,759.53 | 7,576.03- | 4.83 |  | 1,099.79 | $\begin{aligned} & N 4,133,721.39 \\ & 3,625.63 \\ & N 4,133,721.85 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,278.28 \\ \text { E } 4,134.35-173,278.40 \end{array}$ | 1 | / |
    | 9,210 | 33 |  | 63.32 | 7,769.52 | 7.586.02- | 4.38 |  | 1,100.25 | $\begin{aligned} & 3,625.75 \\ & \mathrm{~N} 4,133,722.31 \end{aligned}$ | $\text { E } 4,173,278.52$ | 1 | 1 |
    | 9,220 | 43 |  | 63.19 | 7,779.51 | 7,596.01- | 3.93 |  | 1,100.72 | $\begin{aligned} & 3,625.88 \\ & N \quad 4,133,722.78 \end{aligned}$ | $\text { E } 4,173,278.65-135,28-$ | 1 | 1 |


    ## SECTION BEARING 0000

    K.B. ELEVATION 183.50
    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$
    

    | 8,956 | 58 | 1015 | 57.07 | 7.517 .07 | 7.333.57- | 10.32 | N20 00E | 1,075.77 |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 8,960 | 4 |  | 55.60 | 7.521 .02 | 7,337.52- | 9.92 |  | 1.076 .29 |
    | 8,970 | 14 |  | 51.91 | 7.530.92 | 7.347.42- | 8.89 |  | 1.077 .59 |
    | 8,980 | 24 |  | 48.22 | 7.540.82 | 7,357.32- | 7.87 |  | 1,078.89 |
    | 8,990 | 34 |  | 44.53 | 7.550 .72 | 7.367.22- | 6.85 |  | 1,080.19 |
    | 8,998 | 42 | 0815 | 41.57 | 7.558.64 | 7,375.14- | 6. 03 | N25 00E | 1,081.24 |
    | 9,000 | 2 |  | 42.36 | 7,560.62 | 7.377.12- | 6.10 |  | 1.081 .46 |
    | 9.010 | 12 |  | 46.35 | 7.570 .55 | 7.387.05- | 6.45 |  | 1,082.56 |
    | 9.020 | 22 |  | 50.34 | 7.580.47 | 7.396.97- | 6.81 |  | 1.083 .66 |

    ## SECTION BEARING 0000

    K.B. ELEVATION 183.50
    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$
    

    N $4,133,675,95$ E $4,173,259,28$

    OCCIDENTAL PETROLEUM CORP
    WELL NUMBER W-PI2RDI
    DIRECTIONAL SURVEY DATA
    START DATE $10 / 16 / 68$
    K.B. ELEVATION 183.50

    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$
    COMPLETED WELLS
    

    | 8.480 | 84 | 15 | 15 | 88.76 | 7.059 .80 | $6.876 .30-$ |
    | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

    

    OCCIDENTAL PETROLEUM CORP
    WELL NUMBER W-P12RD1
    DIRECTIONAL SURVEY DATA
    START DATE $10 / 16 / 68$
    COMPLETED WELLS

    ## SECTION BEARING 0000

    K.B. ELEVATION 183.50
    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$
    

    | 8,240 8,250 | 21 31 | 1645 | 30.03 29.68 | $6,821.62$ $6,831.20$ | $6.638 .12-$ $6.647 .70-$ | 8.89 8.93 | N48 00E | 944.04 945.97 | $\begin{aligned} & 3,513.48 \\ & N 4,133,566.10 \\ & 3,515.63 \end{aligned}$ |  | $\begin{array}{r} 978.60- \\ 4.173,166.25 \\ 980.53- \end{array}$ | $10 / 1$ | $16 / 68$ |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 8.260 | 10 |  | 29.69 | $6,840.78$ | 6.657 .28 - | 8.89 |  | 948.01 | $\begin{aligned} & N 4,133,568.03 \\ & 3,517,60 \\ & N 4,133,570.07 \end{aligned}$ |  | $\begin{array}{r} 4,173,168.40 \\ 982.57- \\ 4,173,170.37 \end{array}$ | / | / |
    | 8.270 | 20 |  | 29.70 | 6,850.37 | 6,666.87- | 8.85 |  | 950.05 | $\begin{aligned} & 3,519.57 \\ & \mathrm{~N} 4,133,572.11 \end{aligned}$ |  | $\begin{array}{r} 984.61- \\ 4,173,172.34 \end{array}$ | 1 | 1 |
    | 8,280 | 30 |  | 29.71 | 6,859.96 | 6,676.46- | 8.81 |  | 952.09 | $\begin{aligned} & 3,521,54 \\ & N 4,133,574,15 \end{aligned}$ |  | $986.65-$ | 1 | 1 |
    | 8,281 | 31 | 1630 | 29.72 | 6,860.92 | 6,677.42- | 8.80 | N44 00E | 952.30 | $\begin{aligned} & 3,521,74 \\ & \mathrm{~N} 4,133,574.36 \end{aligned}$ |  | $4,173,174.51$ | 10/1 | 6/68 |
    | 8.290 | 9 |  | 29.97 | 6,869.53 | 6,686.03- | 8.91 |  | 954.25 | $\begin{aligned} & 3,523.44 \\ & \mathrm{~N} 4,133,576.31 \end{aligned}$ |  | $4,173,176.21$ | 1 | 1 |
    | 8,300 | 19 |  | 30.26 | 6,879.11 | 6,695.61- | 9.04 |  | 956.43 | $\begin{aligned} & 3.525 .33 \\ & \mathrm{~N} 4,133.578 .49 \end{aligned}$ |  | $\begin{array}{r} 990.99- \\ 4,173,178.10 \end{array}$ | 1 | 1 |
    | 8,310 | 29 |  | 30.55 | 6,888.68 | 6,705.18- | 9.18 |  | 958.60 | $\begin{aligned} & 3,527.22 \\ & \mathrm{~N} 4,133,580.66 \end{aligned}$ |  | $\begin{array}{r} 993.16- \\ 4,173,179.99 \end{array}$ | / | 1 |
    | 8.313 | 32 | 1645 | 30.64 | 6,891.56 | 6,708.06- | 9.22 | N41 00E | 959.26 | $\begin{aligned} & 3,527.79 \\ & N 4,133,581.32 \end{aligned}$ |  | $\begin{array}{r} 993.82- \\ 4,173,180.56 \end{array}$ | $10 / 1$ | 6/68 |
    | 8,320 | 7 |  | 34.75 | 6,898.26 | 6,714.76- | 10.45 |  | 960.80 | 3,529.08 |  | 995.36- | 1 | 1 |
    | 8,330 | 17 |  | 40.64 | 6,907.83 | 6,724.33- | 12.23 |  | 963.01 | $\begin{aligned} & N 4,133,582.86 \\ & 3,530.94 \\ & N 4,133,585.07 \end{aligned}$ |  | $\begin{array}{r} 4,173,181.85 \\ 997.57- \\ 4,173,183.71 \end{array}$ | 1 | 1 |
    | 8,340 | 27 |  | 46.52 | 6,917.41 | 6,733.91- | 14.00 |  | 965.21 | $\begin{aligned} & 3,532.79 \\ & \mathrm{~N} \quad 4,133,587.27 \end{aligned}$ |  | $\begin{array}{r} 999.77- \\ 4,173,185.56 \end{array}$ | 1 | 1 |
    | 8,350 | 37 |  | 52.41 | 6,926.99 | 6.743.49- | 15.77 |  | 967.42 | 3,534.64 |  | $1,001.98-$ | 1 | 1 |
    | 8,360 | 47 |  | 58.29 | 6,936.56 | 6,753.06- | 17.54 |  | 969.63 | $\begin{aligned} & N 4,133,589.48 \\ & 3,536.49 \\ & N 4,133,591.69 \end{aligned}$ |  | $\begin{array}{r} 4,173,187,41 \\ 1,004.19- \\ 4,173,189.26 \end{array}$ | / | 1 |
    | 8.370 | 57 |  | 64.18 | 6,946.14 | 6,762.64- | 19.31 |  | 971.84 | $\begin{aligned} & 3,538.35 \\ & \mathrm{~N} 4,133,593.90 \end{aligned}$ |  | $\begin{array}{r} 1,006.40- \\ 4,173,191.12 \end{array}$ | 1 | 1 |
    | 8,380 | 67 |  | 70.06 | 6,955.71 | 6,772.21- | 21.08 |  | 974.04 | $\begin{aligned} & 3,540.20 \\ & N \quad 4,133,596.10 \end{aligned}$ |  | $\begin{array}{r} 1,008.60- \\ 4,173,192.97 \end{array}$ | 1 | 1 |
    | 8,390 | 77 |  | 75.94 | 6,965.29 | 6,781.79- | 22.85 |  | 976.25 | $\begin{aligned} & 3,542.05 \\ & N \quad 4,133,598.31 \end{aligned}$ | E | $\begin{array}{r} 1,010.81- \\ 4,173,194.82 \end{array}$ | 1 | 1 |
    | 8,396 | 83 | 1645 | 79.48 | 6.971 .04 | 6,787.54- | 23.92 | N40 00E | 977.58 | $\begin{aligned} & 3,543.17 \\ & \mathrm{~N} \quad 4,133,599.64 \end{aligned}$ | E | $\begin{array}{r} 1,012,14- \\ 4,173,195.94 \end{array}$ | $10 / 1$ | 16/68 |
    | 8,400 | 4 |  | 79.88 | 6,974.89 | 6,791.39- | 23.93 |  | 978.36 | 3,543.87 |  | 1,012.92- | 1 | 1 |
    | 8,400 | 14 |  | 80.89 | $6,984.54$ | 6,801.04- | 23.96 |  | 980.31 | $\begin{aligned} & N 4,133,600.42 \\ & 3,545.63 \\ & N \quad 4,133,602.37 \end{aligned}$ | E | $\begin{array}{r} 4,173,196.64 \\ 1,014.87- \\ 4,173,198.40 \end{array}$ | / | / |
    | 8,420 | 24 |  | 81.90 | 6,994.19 | 6,810.69- | 23.99 |  | 982.27 | $\begin{aligned} & 3,547,39 \\ & \mathrm{~N} 4,133,604.33 \end{aligned}$ | E | $\begin{array}{r} 1,016,83- \\ 4,173,200.16 \end{array}$ | 1 | 1 |
    | 8,430 | 34 |  | 82.90 | 7,003.84 | 6,820.34- | 24.02 |  | 984.22 | 3,549.15 |  | 1,018.78- | / | 1 |

    K.B. ELEVATION 183.50

    LAMBERT COORDINATES N 4,132,622.06 E 4,169,652.77
    SECTION BEARING 0000
    

    | 8,219 | 32 | 1600 | 30.76 | 6,801.52 | 6,618.02- | 8.82 | N53 OOE | 939.99 |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 8,220 | 1 |  | 30.73 | 6,802.47 | 6,618.97- | 8.82 |  | 940.18 |

    K.B. ELEVATION 183.50
    LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$

    SECTION BEARING 0000

    | ME ASURED DEPTH | COURSE <br> LENGTH | $\begin{aligned} & \text { DRIFT } \\ & \text { ANGLE } \end{aligned}$ | V ER T COURSE | $\begin{aligned} & \text { I C A L } \\ & \text { TOTAL } \end{aligned}$ | $\begin{array}{llll} \text { D E P T H } \\ & \text { SUB } & \text { SEA } \end{array}$ | DEVI COURSE | ATION BEARING | $\begin{aligned} & \text { TOTA L COO } \\ & \text { NORTH } \\ & \text { SOUTH } \end{aligned}$ | $\begin{aligned} & \text { RDIN NATESS } \\ & \text { EAST WEST } \end{aligned}$ | TOTAL DISTANCE <br> IN SECTION | $\begin{aligned} & \text { READING } \\ & \text { DATE } \end{aligned}$ |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | 7.860 | 18 |  | 38.74 | 6.451.51 | 6,268.01- | 5.49 |  | 910.52 | $\begin{aligned} & 3,437.83 \\ & N 4,133,532.58 \end{aligned}$ | $\text { E } 4,173,090.60$ | $11$ |
    | 7,870 | 28 |  | 42.63 | 6,461.40 | 6,277.90- | 6.22 |  | 910.42 | $3,439.34$ $N+4,133,532.48$ | $\text { E } 4,173,092.11$ | 11 |
    | 7,880 | 38 |  | 46.53 | 6,471.28 | 6,287.78- | 6.96 |  | 910.31 | $\begin{aligned} & 3,440.86 \\ & N \quad 4,133,532.37 \end{aligned}$ | $\begin{array}{r} 944.55- \\ \text { E } 4,173,093.63 \end{array}$ | 11 |
    | 7,890 | 48 |  | 50.43 | 6,481.16 | 6,297.66- | 7.69 |  | 910.21 | $\begin{aligned} & 3,442.38 \\ & \mathrm{~N} 4,133,532.27 \end{aligned}$ | $\text { E } 4,173,095.15$ | 11 |
    | 7,895 | 53 | 0845 | 52.38 | 6,486.11 | 6,302.61- | 8.06 | S86 00E | 910.15 | 3,443.14 | 944.71- | 10/16/68 |
    | 7.900 | 5 |  | 48.86 | $6,491.03$ | 6,307.53- | 7.61 |  | 910.20 | $\begin{aligned} & N 4,133,532.21 \\ & 3,443.98 \\ & N 4,133,532.26 \end{aligned}$ | $\begin{array}{r} \text { E } 4,173,095.91 \\ 944.76- \\ \text { E } 4,173,096.75 \end{array}$ | 11 |
    | 7.910 | 15 |  | 41.82 | 6,500.89 | 6,317.39- | 6.71 |  | 910.32 | $\begin{aligned} & 3,445.67 \\ & N=4,133,532.38 \end{aligned}$ | $\text { E } 4,173,098.44$ | 11 |
    | 7,920 | 25 |  | 34.78 | 6,510.74 | 6,327.24- | 5.80 |  | 910.44 | $3,447.36$ $N+4,133,532.50$ | E $4,173,100.13$ | 11 |
    | 7.926 | 31 | 0945 | 30.55 | 6,516.66 | 6,333.16- | 5.25 | N86 O0E | 910.52 | $\begin{aligned} & 3,448.38 \\ & \mathrm{~N} 4,133,532.58 \end{aligned}$ | $\begin{array}{r} 945.08 \\ \text { E } 4,173,101.15 \end{array}$ | 10/16/68 |
    | 7,930 | 4 |  | 30.54 | 6.520 .59 | 6,337.09- | 5.31 |  | 910.67 | $\begin{aligned} & 3,449.10 \\ & N \quad 4,133,532.73 \end{aligned}$ | $\begin{array}{r} 945.23- \\ \text { E } 4,173,101.87 \end{array}$ | 11 |
    | 7.940 | 14 |  | 30.51 | 6,530.41 | 6,346.91- | 5.48 |  | 911.06 | $\begin{aligned} & 3,450.93 \\ & \mathrm{~N} 4,133,533.12 \end{aligned}$ | $\text { E } 4,173,103.70$ | 11 |
    | 7.950 | 24 |  | 30.49 | 6,540.24 | 6,356.74- | 5.66 |  | 911.44 | $3,452.75$ $N+4.133,533.50$ | $\begin{array}{r} 946.00- \\ \hline 4.173 .105 .57 \end{array}$ | $1 /$ |

    

    WELL NUMBER W-P12RD1
    K-B. ELEVATION 183.50 LAMBERT COORDINATES N $4,132,622.06$ E $4,169,652.77$
    

    | 7.670 | 15 | 38.08 | 6.262 .78 | $6,079.28-$ |
    | :--- | :--- | :--- | :--- | :--- |
    | 7.680 | 25 | 42.88 | 6.272 .73 | $6.089 .23-$ |
    | 7.690 | 35 | 47.67 | 6.282 .67 | $6,099.17-$ |
    | 7.700 | 45 | 52.47 | 6.292 .62 | $6,109.12-$ |
    | 7.710 | 55 | 57.27 | 6.302 .56 | $6,119.06-$ |

    WELL NUMBER W-PI2RDI DIRECTIONAL SURVEY DATA

    ## SECTION BEARING 0000

    

    WELL NUMBER W-PI2RD1 Berevily fillo
    DIRECTIONAL SUR
    K.B. ELEVATION 183.50 DO NOT COrRESPOND To Lor. WP 2 COMPLETED WELLS
    K.B. ELEVATION 183.50
    LAMBERT COORDINATES
    $N$
    

    SECTION BEARING 0000
    

    ## DIVISION OF OIL AND GAS

    ## Special Report on Operations Witnessed

    Mr．Eugene F．Reid，Agent
    OCCIDENTAL PETROLEUM CORPORATION
    5000 Stockdale Highway
    Inglewood， $\qquad$ Calif．
    September 17， 1968
    zadguxasiox Bakersfield，California 93309
    Dear Sir：
    （037－20146）
    Operations at well No． ＂West Pica＂ 12 $\qquad$ Sec 30 ，T． 1 S Sec 30 ，T． 1 S R． 14 W，SAB．B \＆M． Beverly Hills $\qquad$ Field，in Los Angeles County，were witnessed
    on September 11， 1968 $\qquad$ Mr．G．Ledingham，Engineer，representative of the supervisor was present from 2：45 pam．to 3：00 p．m．．．．．There were also present ．N．Donoghue，Drilling Foreman

    ```
    Present condition of well: 20' cem. 40'; 13-3/8'⿱⿱㇒⿲丶丶㇒木'
    7394' WSO; 6-5/8' 1d. 7476'-8125', perfs. 7572'-7962'& 7982'```

